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MĀKSLA UN DIZAINS, DIZAINA IZGLĪTĪBA**

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MŪŽIZGLĪTĪBA
Lifelong Learning

CHALLENGES AND OPPORTUNITIES IN ADULT EDUCATION IN GREENLAND

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Abstract. Education in Greenland is a central parameter in achieving the long-term goals of the Government in terms of providing the population with the necessary means to take up positions as skilled labour. The research aim is to implement theoretical and empirical analysis of adult education in Greenland underpinning the identification of challenges and opportunities in adult education in Greenland. The empirical study of the exploratory nature was carried out in November-December 2020. Data collection was based on document analysis as well as interview. The obtained data were processed via content analysis. Findings of the theoretical analysis allow defining challenges as externally created problem situations. The structuring content analysis allows identifying challenges and opportunities in adult education in Greenland. The summarizing content analysis reveals that adult education within the educational system in Greenland has not been properly addressed. The empirical findings allow concluding that adult education in Greenland is to be shaped in such a way that it responds to the emergent challenges. The present study has some limitations. The new research question has been formulated: What modern skills (creativity, digital skills, entrepreneurship, languages, etc) do adult learners in Greenland need most? Future research will focus the extension of the dataset.

Keywords: Adult education, challenge, development of the system of external and internal perspectives, Greenland, opportunity, problem, sustainability.

Introduction

Greenland's economy is characterised by a very large and predominant public sector (European Commission, 2014). Fisheries and fishing industries dominate export, and there is a developing private sector which includes international mining- and oil companies (European Commission, 2014). The unemployment rate in Greenland is about 9%. The public finances are highly dependent on the block grant allocated by Denmark as well as the association of Greenland with the EU (European Commission, 2014). Harsh weather conditions, the remote location of the island, and the necessity to import goods all contribute to a high cost of living in Greenland compared to other Nordic countries (Karsberg, 2016).

The general population in Greenland is around 57,000 inhabitants. The youth population (15 to 24 years) of Greenland is about 8979 people, which is approximately 40% of the population (MIPI, 2012). Of these, 7638 lived in cities while 1341 lived in small settlements. Around 10% of the entire Greenlandic youth population emigrates to Denmark to study or to work (MIPI, 2012). Approximately 89% of the Greenlandic population is native (Inuit), while the remaining 11% is primarily Danish (Hamilton & Rasmussen, 2009). Most of the population lives in small cities along the west coast. Around one-fifth of the population lives in smaller settlements often with no more than 200 inhabitants, where access to healthcare, electricity, education, everyday goods and other services can be very limited or even non-existent (Grønlands statistik, 2014). Average life expectancy in Greenland is 68.6 years for men and 74.0 years for women (Nomesko, 2013). Education in Greenland is a central parameter in achieving the long-term goals of the Government in terms of providing the population with the necessary means to take up positions as skilled labour (European Commission, 2014). Education will enable more people to be self-sustaining and thus take pressure off the public sector (European Commission, 2014). Against this background, adult education in Greenland was not properly addressed.

The research aim is to implement theoretical and empirical analysis of adult education in Greenland underpinning the identification of challenges and opportunities in adult education in Greenland. The research is based on the methodology of the development of the system of the external and internal perspectives as demonstrated in Figure 1 (Ahrens, & Zašcerinska, 2012).

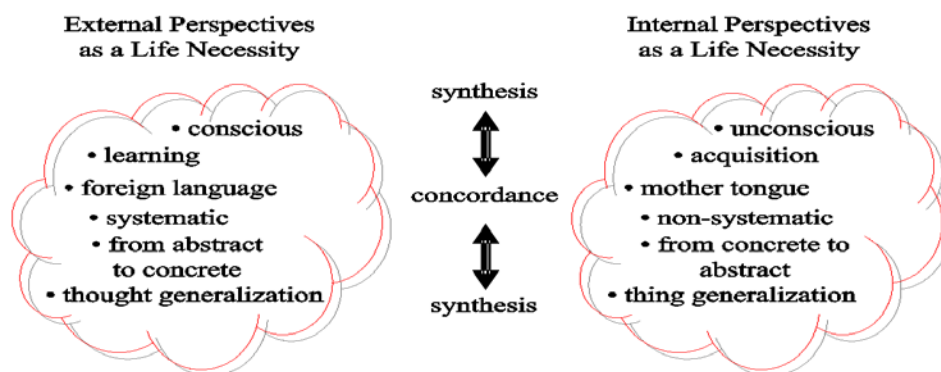


Figure 1 Development of the System of External and Internal Perspectives
(Ahrens & Zascerinska, 2012)

The research presented in the paper includes the use of theoretical as well as empirical methods. Theoretical methods imply analysis of theoretical sources and theoretical modelling (Ahrens, Zascerinska, & Melnikova, 2019). The empirical study was of the exploratory nature. The exploratory study was aimed at generating new research questions. Data collection was based on document analysis as well as interview. The obtained data were processed via content analysis. The novel contribution of the paper is the identified challenges and opportunities in adult education in Greenland.

Conceptual Framework

Adult education in Greenland is aimed at developing individual's sustainability (European Commission, 2014). In the present research, the terms "individual", "person" and "human being" are used synonymously while the term "personality" means the combination of knowledge, skills and attitude as well as characteristics and qualities that form a person's competence and character. A sustainable personality means an adult learner who is able to develop the system of external and internal perspectives, and, in turn, the system of external and internal perspectives becomes a main condition for the sustainable personality to develop (Ahrens & Zašcerinska, 2012).

Development and, consequently, learning (Zascerinska, 2010) is based on solving a contradiction (Čehlova, 2002, 9). Contradiction means two incompatible requirements set to one element/subject/thing/etc (Sokol, 2002, 4). Contradiction creates contradictory individual needs, namely, the necessity in change and stability (Zašcerinska & Zašcerinskis, 2012). Contradiction is a problem situation (Ruzavin, 2005; Sokol, 2007) as well as a problem (Sorokin, 1974).

Problem is defined to be a challenge and an opportunity (Sālsberg, 2003). In this definition, the external perspective prevails (Zaščerinska & Zaščerinskis, 2012) as illustrated in Figure 2.

External perspective	Internal perspective
Challenge and opportunity	Gain and possibility
The system of the external and internal perspectives	

Figure 2 The Definition of the Term “Problem” from the External and Internal Perspectives (the authors)

Challenge is an externally created problem situation. The authors admit that a challenge can be internally initiated. For example, a person sets a challenge of learning 10 words in English every day, or practising sport for 10 minutes twice per week. However, in the public discourse, a challenge is conventionally associated as an external phenomenon.

Development from the system perspective on the life activity includes its objective structural component determined as social and cultural aspects of development, namely, opportunities of gaining experience (Tiļļa, 2003). Opportunities as the objective component are the unity of two processes (Tiļļa, 2003):

- experience constructing process as the subjective aspect, and
- provision of open variable guaranteed choices of social culture learning organization.

Opportunity is defined as the development of culture of learning, education and interaction in a certain social-cultural environment gaining his/her individual’s experience (Tiļļa, 2006). Opportunities for teachers to construct knowledge about the world on their own means (Maslo, 2006; Žogla, 2007) availability of social environment:

- teacher, other students are joined in implementing of a common teaching/learning task and in acquiring new knowledge in pairs or groups,
- equal relationships,
- activity relevant to everyone’s abilities,
- teacher competence in managing co-operation,
- the improvement of attitudes,
- co-operation supports and strengthens the willingness to learn,
- every individual belongs to a group and is acknowledged by a group,
- the development of communication abilities: listening to the opinion, making arguments, respecting other partners of communication, and the evaluation of a joint result.

Thus, the emphasis is laid to the objective aspect of opportunities, namely, organizing an environment for adult learners' development, where the accent has shifted towards an individual's initiated actions as a background of his/her development (Žogla, 2008) that gives the possibility for social cultural learning to precede as life activity and in that way it realizes the subjective interests of each (Tišlja, 2003).

Methodology of the Empirical Study

The design of the empirical study includes the question and purpose, sample and methodology of the empirical study. The guiding question of the empirical study was as follows: What are challenges and opportunities in adult education in Greenland? The purpose of the empirical study was to identify challenges and opportunities in adult education in Greenland.

The empirical study was carried out in November-December 2020. The present empirical study involved one respondent. The respondent's selected was impacted by two factors, namely access to the sample as well as time availability to carry out the study (Ahrens & Zašcerinska, 2012). The qualitatively oriented empirical study allows the construction of only few respondents (Mayring, 2004). Moreover, the respondents themselves are not of interest, only the conclusions and transfers we can draw from these respondents (Flyvbjerg, 2006). Selecting the respondent for the study comprises use of information-oriented sampling, as opposed to random sampling (Flyvbjerg, 2006). This is because an average respondent is often not the richest in information. In addition, it is often more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur (Flyvbjerg, 2006). Random samples emphasizing representativeness will seldom be able to produce this kind of insight; it is more appropriate to select some few respondents chosen for their validity. In order to save the information of the present research confidential, the respondent's name, surname and affiliation are not disclosed.

The interpretive research paradigm was used in the study. The interpretive paradigm is featured by the researcher's interest in a phenomenon. The interpretive paradigm is aimed at analysing the social construction of the meaningful reality. Meanings emerge from the interpretation. The researcher is the interpreter (Ahrens, Purvinis, Zašcerinska, Miceviciene, & Tautkus, 2018).

The empirical study was of the exploratory nature. The exploratory study was aimed at generating new research questions. The exploratory studies are largely an inductive process to gain understanding (Edgar & Manz, 2017). When the experimental process goes from a general theory to an understanding in specific, exploratory studies observe specific phenomena to look for patterns

and arrive at a general theory of behaviour (Edgar & Manz, 2017). The emphasis is on evaluation or analysis of data, not on creating new designs or models (Edgar & Manz, 2017). The emphasis is on perspective and relative importance (Edgar & Manz, 2017).

Data were collected via document analysis and interview. Non-structured or, in other words, unstructured interview was implemented to search for the main categories of the research field (Kroplijs & Rascevska, 2004). Non-structured interview is conventionally built on a certain topic to be disclosed during the meeting (Ahrens, Foerster, Zaščerinska, & Wasser, 2020). However, non-structured interview does not imply any specific set of predetermined questions (Ahrens et al., 2020). Non-structured interview is organised in a non-formal manner and tends to be open-ended (Ahrens et al., 2020). The interview was conducted during a project preparation via international on-line meetings in November-December 2020. The interviewee was an employee who works in a fish company in Greenland. As the interview was non-structured, the topic was only defined, namely challenges and opportunities in adult education in Greenland.

Non-structured interview was studied via content analysis. Further on, content analysis included such types as (Mayring, 2000) structuring content analysis and summarizing content analysis. Structuring content analysis assists in categorising the data in accordance to the previously determined criteria (Budde, 2005). In turn, summarizing content analysis seeks to reduce the material in such a way that the essential contents are preserved, but a manageable short text is produced (Mayring, 2004, 269).

Results of the Empirical Study

The conducted interview revealed that fish industry in Greenland is the main field of work for the Greenland inhabitants. Fish industry employees are mostly unskilled. The respondent highlighted that 60% of the population in Greenland is unskilled. The respondent also pointed that about 2800 school leavers every year do not continue their education due to their poor school results. Another issue is that school education is delivered in Greenlandic but further education (vocational and higher) is in Danish. The fish companies plan to decrease the number of one-skill workers in three further years. Employee skills' recognition is important for companies in Greenland. Employee skills' recognition serves as a tool for his/her self-esteem. The respondent emphasized that in Greenland people are isolated in remote areas.

The document analysis reveals that previously, the level of education achieved and the percentage of educated people in Greenland had been low compared to other Nordic countries (Norden, 2014). A large part of the

educational institutions focus on maritime training and education, which often attracts more men than women (Bennike, Faber, & Nielsen, 2016). Among the Greenlandic population aged 25-74, more men have achieved some level of education than women but more women than men achieve the highest level of education (Bennike et al., 2016). Women indicated that they wanted to move to gain better access to education, to get access to more culture and leisure activities and to get away from social control in the smaller communities and provide increased opportunities for their children (Bennike et al., 2016). The study showed that men in Greenland, in contrast, are more motivated by opportunities in the labour market (Bennike et al., 2016). A reason for Greenlandic men to choose to move could be that they feel that there are better and more business opportunities for them and/or their partner elsewhere (Bennike et al., 2016). Common for respondents from both sexes in the Mobility Study was that they wanted to reside in an area where the wages are higher, with increased opportunities for public transportation and a variety of other public benefits, for example, health and education facilities (Rasmussen, 2010).

The Government has maintained a clear and concrete focus on education and training since 2002. Language teaching is highly prioritised in the teaching plans. It is the intention of the teaching that the learners become functionally bilingual (Greenlandic and Danish) and able read, write, speak and understand English (European Commission, 2014). However, the policy regarding vocational education and training also includes provision of courses from a monolingual Greenlandic perspective in order to accommodate students who do not speak Danish (European Commission, 2014). University level studies will generally require proficiency in English as well given the international nature of the academic environment and the fact that many educations are not available purely in Greenlandic or Danish (European Commission, 2014).

The Ministry of Education, Culture, Research and Church has published a National Strategy for Education 2014 (Bennike et al., 2016). Focal areas in the 2014 strategy include (Bennike et al., 2016)

- strengthening lowering the age of students starting education,
- improving the skills of personnel,
- reducing drop-out rates,
- improving guidance and counselling for students (including therapy),
- improving students' information and communication technology skills,
- evaluation of intervention effects.

There has been a remarkable rise in the number of active students and students completing their education in Greenland as a result of interventions related to the strategy (Bennike et al., 2016). As part of the new national strategy for education, a national centre for student counselling has been set up in Nuuk,

and the centre now trains school counsellors all over Greenland (Bennike et al., 2016).

Specific issues in relation to education, work, recreation, population flows and identity in the Nordic region's peripheral/remote areas are summarized in five themes (Bennike et al., 2016):

1. Lack of/limited access to education in peripheral areas.
2. Restructuring of the labour markets in the peripheral areas.
3. Women find life in peripheral areas less attractive.
4. Labour supply is too narrow in the peripheral areas.
5. The stigma of the peripheral areas affects the youth of both sexes.

Globalisation and the financial crisis have put traditional male occupations under pressure (Bennike et al., 2016). The women in remote areas demand more education and employment opportunities as well as a wider range of culture and leisure activities (Bennike et al., 2016).

Lack of/limited access to education in peripheral areas is described by the problem of increased demands and expectations of formal education as well as gender-segregated education choices (Bennike et al., 2016). This increased demand for formal education is related to the fact that today even traditional jobs within for instance agriculture and fishing requires a different set of skills than in the past, including knowledge of economics, management, security, etc (Bennike et al., 2016). Possible areas for action include (Bennike et al., 2016)

- Decentralization of educational institutions,
- Long-distance learning,
- Focusing on transportation/commuting,
- Special assistance to young people who have to move far.

Long-distance education in remote areas can have a positive effect in relation to discouraging emigration among young people, while keeping their attachment to the local areas (Bennike et al., 2016). Additionally, long-distance learning can contribute to educating the local population to ensure that skills are present in relation to undertaking new jobs in upcoming sectors, such as within the health care system, which is generally growing at the local level in all the Nordic countries (Bennike et al., 2016).

Findings of the Empirical Study

The structuring content analysis of the collected data allows identifying challenges and opportunities in adult education in Greenland. Table 1 presents the findings of the empirical study.

Table 1 Challenges and Opportunities in Adult Education in Greenland (the authors)

Adult education in Greenland	
Challenges	Opportunities
<ul style="list-style-type: none"> - Population migration, - Gender issues, - Peripheral issues, - Commuting, - Labour market restructuring from traditional occupations to modern ones (economics, management, security, etc) 	<ul style="list-style-type: none"> - Establishment of adult education (purpose, task, activities, etc) in the country's educational system - Development of adult education institutions - Building of adult educators' capacity - Design of training programmes for diversification of adult learners' skills: from one skill (maritime, fishery, agriculture, etc) to the modern skills (creativity, digital skills, entrepreneurship, languages, etc) - Development of digital adult education - Adults' skill recognition from prior educational experiences

Source: The authors.

The summarizing content analysis reveals that adult education within the educational system in Greenland has not been properly addressed.

Conclusions

Findings of the theoretical analysis allow defining challenges as externally created problem situations. The empirical findings allow concluding that adult education in Greenland is to be shaped in such a way that it responds to the emergent challenges. The practical application of the model of problem, as illustrated in Figure 2, within the implemented empirical study allows concluding that the model is valid.

The present study has some limitations. A limitation is participation of only one respondent in the conducted interview. Another limitation is that only few documents and research publications on education in Greenland were detected via search machines (google).

The new research question has been formulated: What modern skills (creativity, digital skills, entrepreneurship, languages, etc) do adult learners in Greenland need most? More respondents could be involved in the study at once. The validation of the problem model by the analysis of the inputs and outputs of problem solving as well as expert evaluation is proposed.

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CHANGES TO STAFF TRAINING STRATEGIES IN A BUSINESS ORGANISATION IN TERMS OF LEARNING AND COMPETENCE DEVELOPMENT

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Abstract. *This paper presents the findings of a study on attitudes of employees of business organisations towards changes in their development strategies in terms of learning and competence development. The study is based on the assumption that the lack of corporate staffs' competences hinders innovation, impairs the quality of activities, while the engrained conventional approach towards staff training prevents from using workplace opportunities of self-study and competence development. The study identifies the following practical issue: conventional staff training, principles and methods of competence development that depend on direct and virtual learning are not always effective lately.*

An analysis of the research participants' attitudes can help to answer the following problematic questions in more detail: are the acquisition of competences, trainings held, and employee learning considered identical phenomena? What is the efficiency of staff training and competence development activities or the learning tools applied? What does the application of the principles of staff training and competence development in an organisation mean in practice? The article, therefore, is aimed to analyse the changes in staff development strategies in terms of employee learning and competence development from the perspective of corporate staff.

Keywords: *competence development, corporate staff development strategies, staff training, learning.*

Introduction

Today's world is changing so fast and employees, accordingly, need to acquire new and develop their existing competences with a view to accomplishing comprehensive personal development, while employers need to review existing principles of staff training and implement new ones to meet to a vital demand of the times.

The study made by the World Economic Forum (The Future of Jobs Report, 2018) suggests that more than half of the world's workforce will need significant re-skilling and up-skilling over the next few years. This challenge will demand a completely different approach to employee self-learning and development and, thus, a revision and update of staff training strategies.

The goal of the research is to show attitudes of employees of business organisations toward their training in terms of self-learning and competence development.

The study is based on the assumption that the lack of corporate staff's competences hinders innovation, impairs the quality of activities, while the engrained conventional approach towards staff training prevents from using workplace opportunities of self-learning and competence development.

The study identifies the following *real-life problem*: conventional staff training programmes, principles and methods of competence development that depend on direct and virtual learning are not always effective lately.

Research hypothesis: training and competence development teams or individuals in charge of staff training in an organisation can find the right solution to the said problem in case they make changes to employees' training strategies in regard to their learning and competence development.

Problematic questions of the research: are the acquisition of competences, trainings held, and employee self-learning considered as identical phenomena? What is the efficiency of staff training and competence development activities or the learning tools applied? What are the necessary strategic changes to staff training so as to use the opportunities for self-learning and competence development offered by a workplace? What does the application of the principles of staff training and competence development in an organisation mean in practice?

Research methods: analysis of scientific literature, online survey.

Theoretical Assumptions of the Research

According to the World Economic Forum (The Future of Jobs Report, 2018), 80 percent of business leaders believe that the activities of corporate employee training and competence development teams, workforce strategies should be more advanced and innovative, enable employees to develop analytical, critical thinking, complex problem-solving skills, emotional intelligence, creativity, etc.

Any staff training programme or self-learning, whether it is comprehensive, meaningful or not, makes no benefit for an organisation if concepts or theoretical knowledge learned are not practiced in professional activities. On the contrary, the acquisition and development of competences is

valuable to an organisation if meets the targets of staff development (Fournier, 2004) and if employees' competences can be compared, quantified, and analysed.

The acquisition of competences does not conflict with the transmission of knowledge for developing the desired behaviour or changes in occupation (Pennaforte, 2015). An employee applies his or her knowledge to solve a specific problem through his or her competencies. Staff training in companies will always be a cornerstone of their workforce strategies. Today, however, the acquisition and development of competences, especially multimodal ones, is a more urgent and critical objective for employee development (Pellerin, 2017).

The most advanced corporate staff training teams consider independent and unplanned employee learning activities in developing the target competences as the core of their strategies (Tardif, 2013). They rely on data on employees' self-learning and self-development, are constantly on the lookout for new learning and development opportunities, and align them with corporate objectives.

Whilst most companies are taking initiatives to upgrade employee skills, employees themselves are well aware that the skills they have today will not be the same in a few years. A study by the Gartner Institute shows that only 20 percent of employees are confident of having the competences they will need in the near future (Gartner, 2018).

There must be a change in a situation of corporate staff training. Former human resource departments were not focused on advanced staff training practices, specifically, on independent or gradual learning with the use of multimedia tools, professional networks, and/or computer software. The world's most innovative staff development teams are revising workforce strategies to support self-learning initiatives.

Employee training and learning programmes make a significant portion of a training team's supply and corporate budget expenditures. A large part of employees, managers and leaders, nonetheless, do not acquire any competences during such programmes (Ručinskas, 2014). Nowadays, employees tend to study independently or together with their peers; therefore, official corporate training programmes are used much less. After all, self-learning and integration thereof in professional training save employees' time, associate learning with a specific problematic situation, and enable interaction with other, more experienced employees (Leclerc, Bourassa, & Filteau, 2010). That's why the most advanced staff training teams focus on ensuring that people have the right resources, i.e., the right content, tools, peers, and information, rather than just the availability of training programmes. Such teams not only build a general scheme of staff training but enable employees to learn independently, too. Sometimes, employees just want to perform efficiently. The smartest staff

training teams can spot this difference and launch the right staff training strategies.

To move forward and seize opportunities, the most innovative staff training teams seek to ensure that employee training is not just a content or their experience, but their identity, as well (Voyer, 2010). Comprehensive data on self-learning needs taking into account of when, where, how, and in what environment employees can acquire knowledge, upgrade their skills, and construct their professional identity. Since, even in a COVID-19 pandemic, competences are a critical criterion for staff development in most businesses (Le Boterf, 2020) leaders of staff training teams have the opportunity to restructure their operations. With a consumer-centred approach and the right data, with the right competence development strategy, a business and a company itself may move forward. Instead of building up a training content, innovative staff training leaders should now create conditions for self-learning, better integrate self-learning into the workflow and occupational activities. The up-skilling would become a regular practice in this case. Professional andragogues might assist or work in teams and establish consistent self-learning practices, provide better tools to support such practices (Jatkauskienė, Trakšelys, 2015). A more diverse self-learning ecosystem (a complex of appropriate tools, content, professionals, and information) makes it easier for employees to integrate learning into their daily activities and enables them to acquire the competences they need in the way that works best for them.

Assessment becomes a major factor of professionalisation and professional incentives. Staff training teams can offer assessment methods and approaches that help employees understand gaps in knowledge or skills by playing important professional roles and involving effectively in the professionalisation process (Gauthier, 2020). This allows employees to keep up with progress and to achieve their personal or corporate strategic goals, because an individual assessment procedure and comparison of competences are followed by alignment of the need for employees' competences with broader business objectives.

Research Methodology

Scope of the research. There was criterion sampling applied in the study. Questionnaires were only sent to organisations with a number of employees from 100 to 149, as they usually have staff training teams or designated employees in charge of staff training. According to Lithuanian official statistics (Official Statistics Portal, 2020), there were 495 enterprises operating in the Republic of Lithuania, with 100 to 149 employees at the beginning of 2020. The number of companies in Lithuania with this indicator is the largest one

compared to other companies with 100 to 1000 employees. There were 400 questionnaires emailed to various companies by asking them to distribute the survey to their staff. In total, 1322 persons from 324 different companies responded to the questionnaires. There were more women (64%) rather than men (36%) engaged in the study. By age, 46-60 years old respondents made the smallest share (16%), and 30-45 years old respondents – the largest share (53%). By education, the majority of employees had higher (46%) or vocational education (47%), the rest (7%) – graduated from secondary or primary schools.

The research tool (survey) was developed according to scientific publications and previous studies in the databases (EBSCO, etc.). The following keywords were used: employee development, staff training, work-based learning, competence development. The questionnaire consists of questions that are grouped into several separate blocks: 1, 2, 3, 4 (Table 1).

Table 1 Structural Blocks of Survey Questions

Question block	Block 1 Demographics	Block 2 Acquisition of competences, training and learning	Block 3 Effectiveness of tools of staff training, competence development activities, and learning	Block 4 Application of new principles of employee training and competence development
Content of question blocks	Respondents' age, gender, length of service in the company	Respondents' opinion on the acquisition of competences, the importance of learning and training, the needs of future competences	Respondents' opinion on the effectiveness of tools of staff training, competence development activities, and learning, on factors that constrain training and competences, etc.	Respondents' opinion on the principles of employee training and competence development, application thereof
Questions	1-3	3-5	6-12	13-18

As the table demonstrates, titles of question blocks correspond to the main survey questions, and more detailed questions of each block help to delve into the main problematic questions of the research.

Data collection methods: a quantitative research strategy (anonymous questionnaire) was chosen.

Data analysis methods. SPSS (Statistical Package for Social Sciences) version 21.0 for Windows and Microsoft Excel were used for statistical data analysis. The Pearson chi-square (χ^2) criterion was used to assess the correlation between the categorical variables analysed. The Spearman's correlation coefficient of $0.2 < r < 0.5$ weak correlation, $0.5 < r < 0.7$ moderate, and $0.7 < r < 1$ strong correlation was used to examine the relationship among rank data. The variance was considered statistically significant at $p < 0.05$. The difference in results was considered statistically significant at $p \leq 0.05$.

Research constraints. The following samples were not included in the survey: (a) companies/groups with less than 100 employees, as they usually do not have teams or individuals in charge of staff training or competence development; (b) non-full-time employees, as they may not be aware of how staff training and skills development takes place in large businesses; (c) public sector enterprises, as, for example, civil servants usually undergo training and competence development under specific and state-approved programmes; (d) providers of training services or curators thereof, as their knowledge of staff training and competence development might have some impact on results of the study.

There were ethical principles followed during the study.

Research Results

Acquisition of competences, staff training, and self-learning. To make sure that staff training strategies and investments in employee training transform into specific results, those in charge of staff training (usually, their teams) and forward-thinking people are beginning to separate staff training from the acquisition of competences.

The study raises the question whether training for employees, self-learning, and the acquisition of competences are identical phenomena.

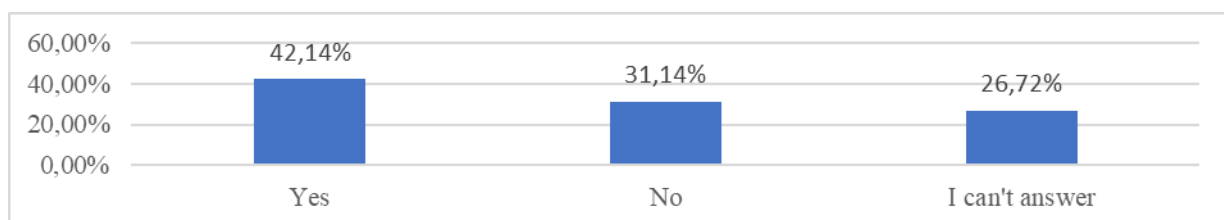


Figure 1 Equation of Competence Acquisition, Training and Self-learning Phenomena (Percentage)

As many as 42.14 percent of study participants believe that training, self-learning, and competence acquisition are identical. The acquisition of competences, training and learning are rather equated by older respondents (68.34%) belonging to the age group of 45 to 60 than of 30 to 45 years old respondents ($\chi^2= 47.71$, $df=4$, $p < 0.001$). A statistically significant difference ($p=0.000 < 0.05$) and a statistically significant direct, weak correlation ($r=0.292$, $p=0.00 < 0.05$) were found between the education background and a failure to answer the question. Based on the above, it can be stated that the higher the education, the fewer (only 9.32%) responses 'I can't answer' are. No statistically significant differences were found when analysing the data by

gender ($p=0.970 > 0.05$). The gap between the competences to be acquired or required for employees and the training of employees makes a certain impact. For example, some managers, which are leaders at the same time, want to achieve a measurable result in their competences through innovative staff training strategies, though in practice we can often see that many other managers still seek for training in knowledge transfer, memorisation, surveys for the evaluation of training content, and assessment of acquired knowledge. Effective staff training is argued to involve three different approaches: 1) competence development, 2) transfer of knowledge conveyed during the training to professional activities, and 3) construction and mastery of practical situations (Fournier, 2004). And then only we can talk about the enforcement of effective staff training strategies.

According to the majority of survey participants, it is possible (36.17%) or partially possible (45.24%) to solve any professional or personal problems through training.

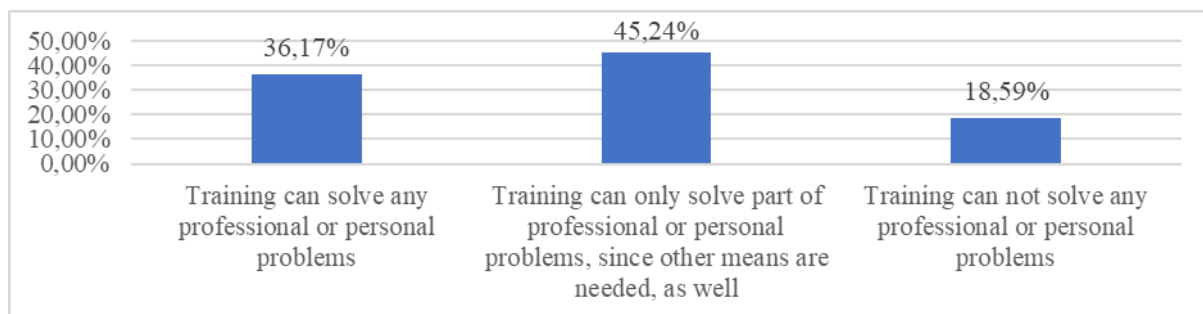


Figure 2 *Training-Provided Opportunity to Solve Arising Problems (Percentage)*

A statistically significant difference was found between all age groups (1- $p=0.002$; 2- $p=0.006$; 3- $p=0.011$; 4- $p=0.001$). For this reason, we assume that the increasing age of the subjects and the training-provided opportunity to solve the arising problems are related to the perception of older people that training cannot solve all the encountered problems. Yet, when comparing the available data by education, there were no significant differences ($p=0.379 > 0.05$). Such an attitude can negatively affect the development of employees in acquiring and improving professional competences. The training, which is limited to the transmission of knowledge and learning activities, without putting knowledge into practice, usually fails to solve any specific professional or personal problem.

According to the study participants, future (in 5 years) professional activities and personal life will demand different competences (43.21%). No statistically significant difference was found between women and men ($p=0.574 > 0.05$).

Effectiveness of tools for staff training, competence development activities, and learning. In total, 59.54 percent of respondents stated that there was a person in the company in charge of staff training. The availability of staff training teams was, however, indicated only by 19.32 percent of study participants.

The study found that the average performance evaluation score of those in charge of staff training was only 3.06 out of 10 possible. There was a statistically significant, weak correlation ($r=0.324$, $p=0.000 < 0.05$) among individuals with different education background. Based on the above, an individual's education background can be argued to influence the average evaluation score, that is, respondents with higher education rated the performance of persons in charge of staff training with a higher degree (4.2) than respondents with secondary (1.8) or vocational education (3.2).

Only one in five employees (34.4%) approves their corporate staff training plan; almost half (48.63%) criticise it:

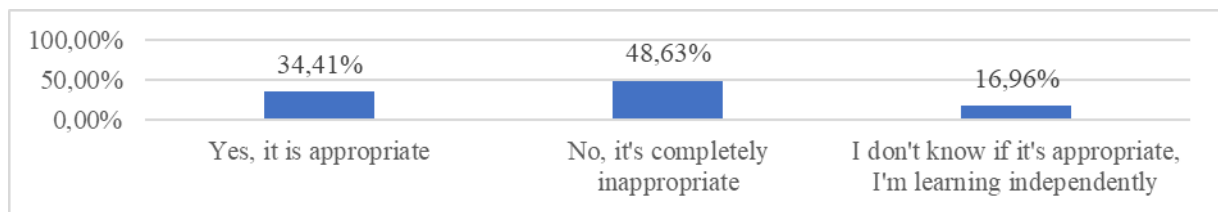


Figure 3 Respondents' Attitudes toward a Corporate Staff Training Plan (Percentage)

In this study, low estimates of a staff training plan indicate that respondents are either unaware of learning opportunities in their organisation or are simply not offered any appropriate opportunities or tools. Therefore, 16.96 percent of respondents anticipate their learning and competence development activities to fill the gaps. There were statistically significant differences among respondents with different education background ($p=0.004 < 0.05$), as well as statistically significant correlation, though, weak one ($r=0.234$, $p=0.000 < 0.05$). Therefore, it can be assumed that respondents with a higher degree are more in favour of their staff training plan.

The study participants indicated that, while properly performing their job duties, the following is essential for them:

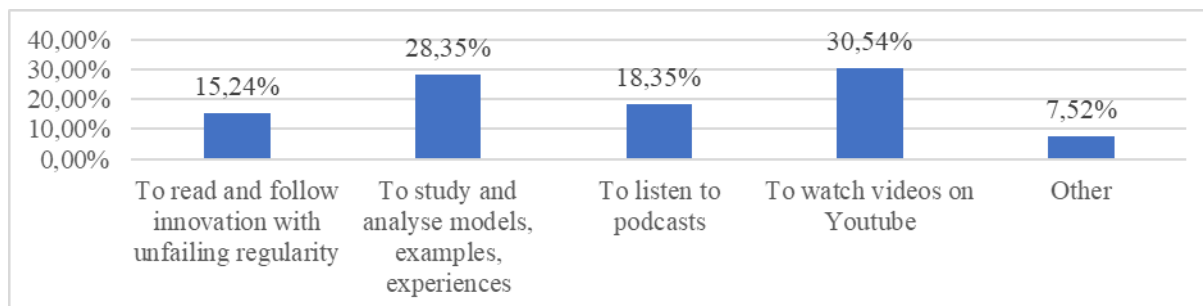


Figure 4 Forms of Self-learning From the Respondents' Point of View (Percentage)

The above data suggest that employees tend to choose different forms of self-learning. Self-learning based on digital literacy is dominating. Analysis of data among age groups shows a statistically significant difference ($p=0.000 < 0.05$) and a statistically significant, negative, and weak correlation ($r=-0.259, p=0.000 < 0.05$). Therefore, it can be argued that the diversity of forms of independent learning decreases with age. Older respondents are less likely to choose contemporary forms of learning (podcasts, Youtube). However, <...combination of different forms of self-development> is particularly important for the professionalisation of employees (Roquet, 2014).

There are many ways to better respond to the needs of employees and provide everyone with the right opportunities for improvement. One of them is strategic changes to staff training. The study identified which major strategic changes to staff training should be of most concern to an organisation:

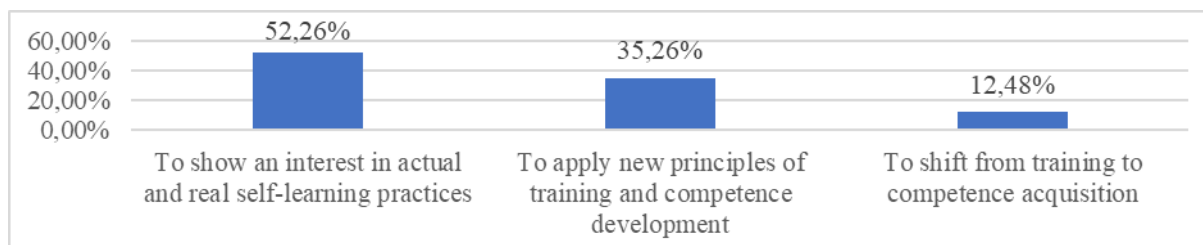


Figure 5 Percentage of Attitudes toward Major Strategic Changes to Staff Training

The majority of survey participants (52.26%) were in favour of *showing an interest in actual and real self-learning practices of employees*. This means that employees want to draw attention of those responsible for staff development to what is really going on and to the fact that learning takes place independently through various forms of self-learning, and not just through involvement in training. This attitude of research participants is basically associated with another strategic change to staff training: *to apply new principles of staff training and competence development*, which was supported by 35.26 percent of all respondents. As just a small part of the research participants distinguished

among self-learning, training, and competence development, it was not surprising that only 12.48% of study participants supported the strategic change in education: *the shift from training to competence acquisition*. Analysis of the data shows no statistically significant difference between the respondents' genders and education background ($Z=-0.623$, $p=0.533 > 0.05$); the changes were evaluated similarly. However, a statistically significant difference was found by age ($p < 0.05$), i.e., younger people were more active in supporting the shift from training to the acquisition of competences.

The study shows which self-learning tools are most often used by respondents:

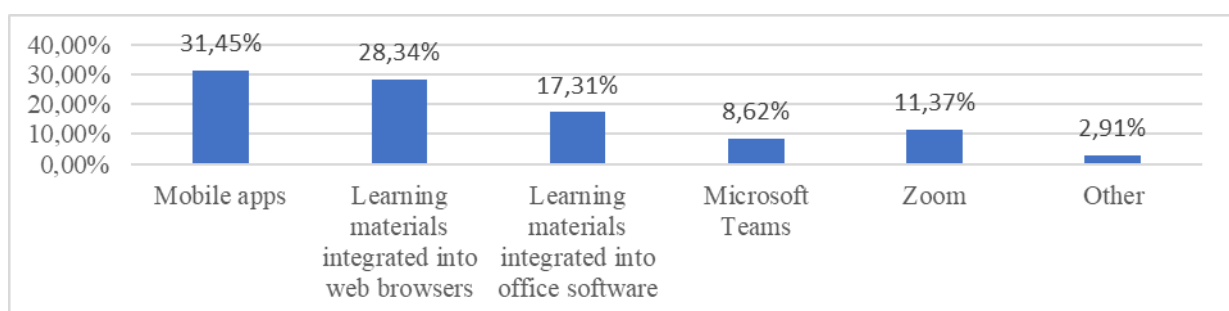


Figure 6 Percentage of Attitudes toward Self-learning Tools Used

It is very important to have and use the right tools when learning independently. Learning is possible anywhere, not only in a dedicated space. The study, however, reveals that some tools (especially, certain mobile apps) are more conducive to learning than others (31.45%). Employees want learning materials to be integrated into web browsers (28.34 percent) or office software (17.31 percent). Collaboration tools like Microsoft Teams or Zoom web conferencing are actually less interesting for them. As for older people, there was a statistically significant in choosing mobile apps as learning tools ($p=0.000 < 0.05$), with quite fewer older respondents choosing them. Therefore, the age can be assumed to determine a choice of self-learning tools.

Tools, used for employee self-learning, can be supportive, though, require free and unrestricted access to recommended learning resources in a workplace. Besides, an individual needs to know how to use software (such as Google, Word, Excel, PowerPoint, Messenger, Facebook, etc.) for work and learning. The survey found that the majority (42.44%) of respondents had free and unrestricted access to information sources, as well as the skills of using software. But still, a sufficient number of employees (32.1%) say they do not need any free and unrestricted access to information sources because they do not know how to use popular applications. This tendency is observed in persons of over 60 years of age and with lower education background (statistically

significant difference ($p=0.010<0.05$) and statistically significant correlation). Therefore, without a proper analysis of the situation, it would be difficult to talk about the effectiveness of staff training, competence development activities or learning tools.

Strategic changes to the principles of staff training and competence development. Participants were asked to indicate obstacles to work-based learning. Their responses were distributed as follows:

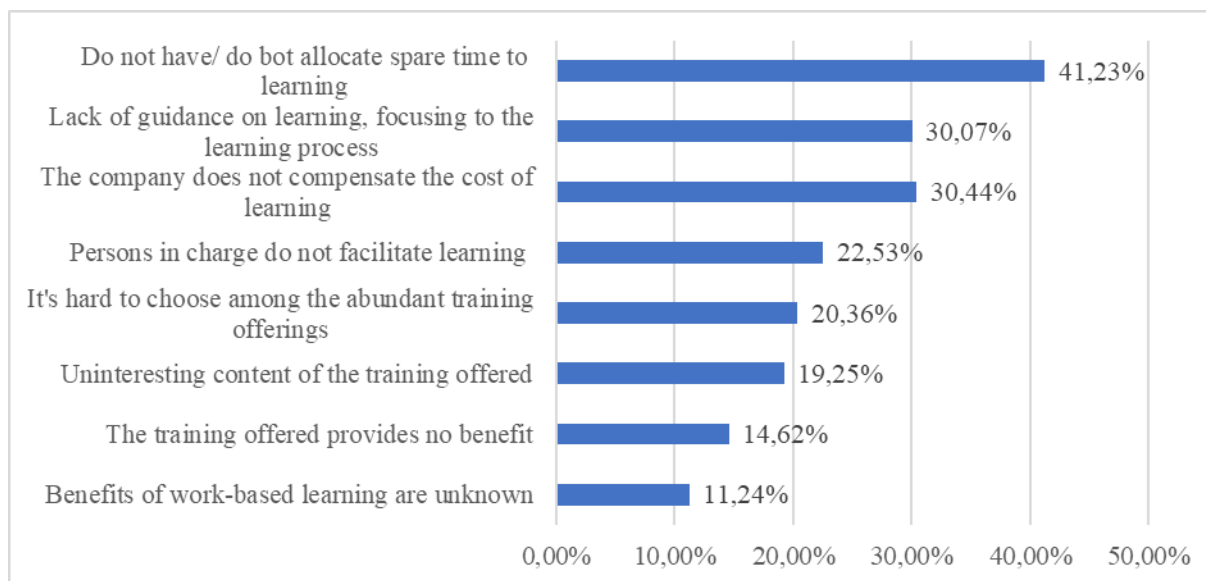


Figure 7 Percentage of Respondents' Attitudes toward the Most Common Obstacles to Work-based Learning

As the results of the study show, there are plenty of learning obstacles. The study found that the biggest obstacle to learning was lack of time (41.23%). Analysis of demographics identifies a statistically significant correlation between younger people and the lack of time for learning in the workplace: the correlation was very weak ($r=-0.180$, $p=0.005$). Therefore, we can assume that the high employment of younger people and the lack of professional experience may influence the evaluation of this obstacle. Most of the obstacles could be overcome if staff training teams or those in charge of the field addressed them more closely and discussed them with staff. Some need encouragement, others need advice, counselling, or guidance. So, it can be assumed that teams lack professional andragogues, as in Lithuania, persons in charge of staff training usually do not have any degree in andragogy (Jatkauskienė, 2013).

Analysis of the respondents' attitude to the application of the principle of *Shifting from employee training management to competence development incentives* allows observing that 27.7 percent of respondents are not satisfied with their organisation's approach to the above principle in employee training.

They criticise the lack of clear priorities (9.25%), low investment in staff training (10.24%), limited and inconsistent learning opportunities (8.21%). Nevertheless, younger and more educated advocates of the approach (66.37%) support staff training strategies in their companies ($\chi^2=5,284$ $df=1$, $p=0.022$). They indicate smarter planning of a staff training content (23.43%) and more relevant and diverse learning opportunities (25.32%). How can this difference be explained? Apparently, for those who do not support the application of the principle of staff training activities, staff training is a closed, vertically managed field, where a training content is planned and developed by persons in charge of employee training. For those who are positive about staff training, it is an open field that provides tools for progress in learning and competence development.

During the survey, it was asked whether the application of the principle of *Shifting from the formation of staff training content to the creation of learning environment* is observable in a company. The answers of respondents distributed as follows:

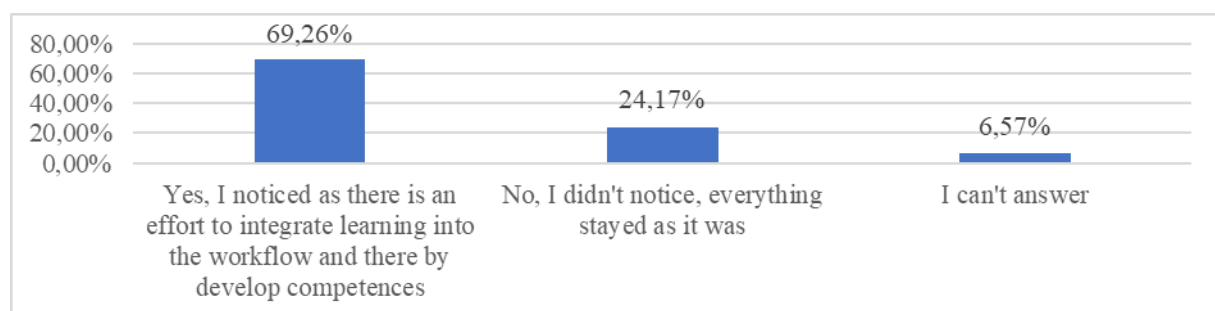


Figure 8 Percentage of Attitudes toward the Application of the Principle of “Shifting from the Formation of Staff Training Content to the Creation of Learning Environment”

Most respondents (69.26%) observe the application of the new principle of *Shifting from the formation of staff training content to the creation of learning environment* in corporate staff training. The majority of those with higher education background (81.5 percent) responded to this question positively, compared to those with secondary education (63.4%) ($\chi^2=15.649$ $df=1$, $p <0.001$). The other part (24.17%), which is almost identical to the respondents who spoke negatively regarding the first principle, did not observe any changes in staff training. It is worth noting that in the past, staff training teams used to develop training content for an audience. Today, however, it is not the creation or development of training content that is becoming more relevant, but rather the creation of conditions for learning in the workplace, “... the possibility to self-assess one's own learning through reliable means” (Cosnefroy, Fenouillet, & Heutte, 2020, p. 257).

Employees who see that their employer is investing more in their development are more satisfied with the performance of a staff training team. Therefore, respondents were asked whether the application of the principle of *Shifting to an integrated learning ecosystem* is perceptible in their organisation. There were 32.25% of those who noticed that employers invested more in staff training and 30.17% of those who saw the possibility to choose how and where to study without harming themselves and the company. A smaller proportion of older people (over 60 years old) were found not to feel like shifting to an integrated learning ecosystem (22.8%) compared to younger people (30-45 years old) (38.3%) ($\chi^2=4.256$, $df=1$, $p=0.039$). Such findings are associated with the transition to an integrated learning ecosystem. However, a portion (19.28% and 14.43%) of respondents did not observe any transition to the aforementioned learning ecosystem. One possible solution to put the principle into practice would apparently be to increase the provision of counselling and information resources (not only financial) to employees and “...tolerance of certain errors in their activities” (Lauzier, & Mercier, 2018, p. 59).

Businesses have procedures in place to assess employee performance and competences. The study was aimed to find out whether those responsible for staff training in an organisation provided the necessary support/assistance in the following assessment situations:

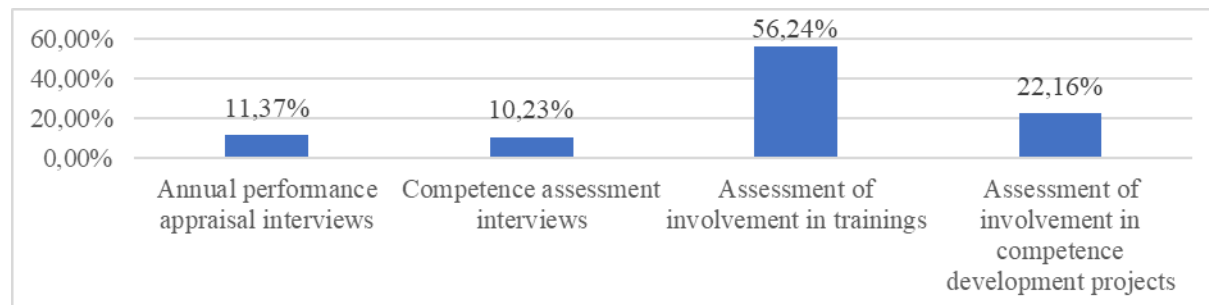


Figure 9 Percentage of Attitudes toward the Assessment of Employees' Performance, Competences, and the Support/Assistance Received During It

As the above survey data show, companies are running various assessment procedures. However, from the respondents' point of view, assistance from those in charge of staff training in annual performance appraisal interviews (11.37%) or competence and knowledge assessment interviews (10.32%) is provided at a minimum. More assistance is provided in assessing employee participation in training programmes (56.24%) and competence development projects (22.16%). There was no statistically significant difference between the study data by age groups and education ($p=0.826>0.05$). Therefore, we can assume that the attitude toward the assessment procedures and the support/ assistance received

does not depend on age or education. Assistance is received rather in simpler issues, where it is easy to see the level of knowledge or intensity of involvement of an employee. Meanwhile, the level of competences and assessment thereof is subject to the assessors' attitude, the methodology chosen, and the consensus on the object to be assessed (Le Boterf, 2018).

During the study, it was asked which of the available proposals for the development of competences would best meet objectives of employees' self-learning and career aspirations. Answers of the respondents were distributed as follows:

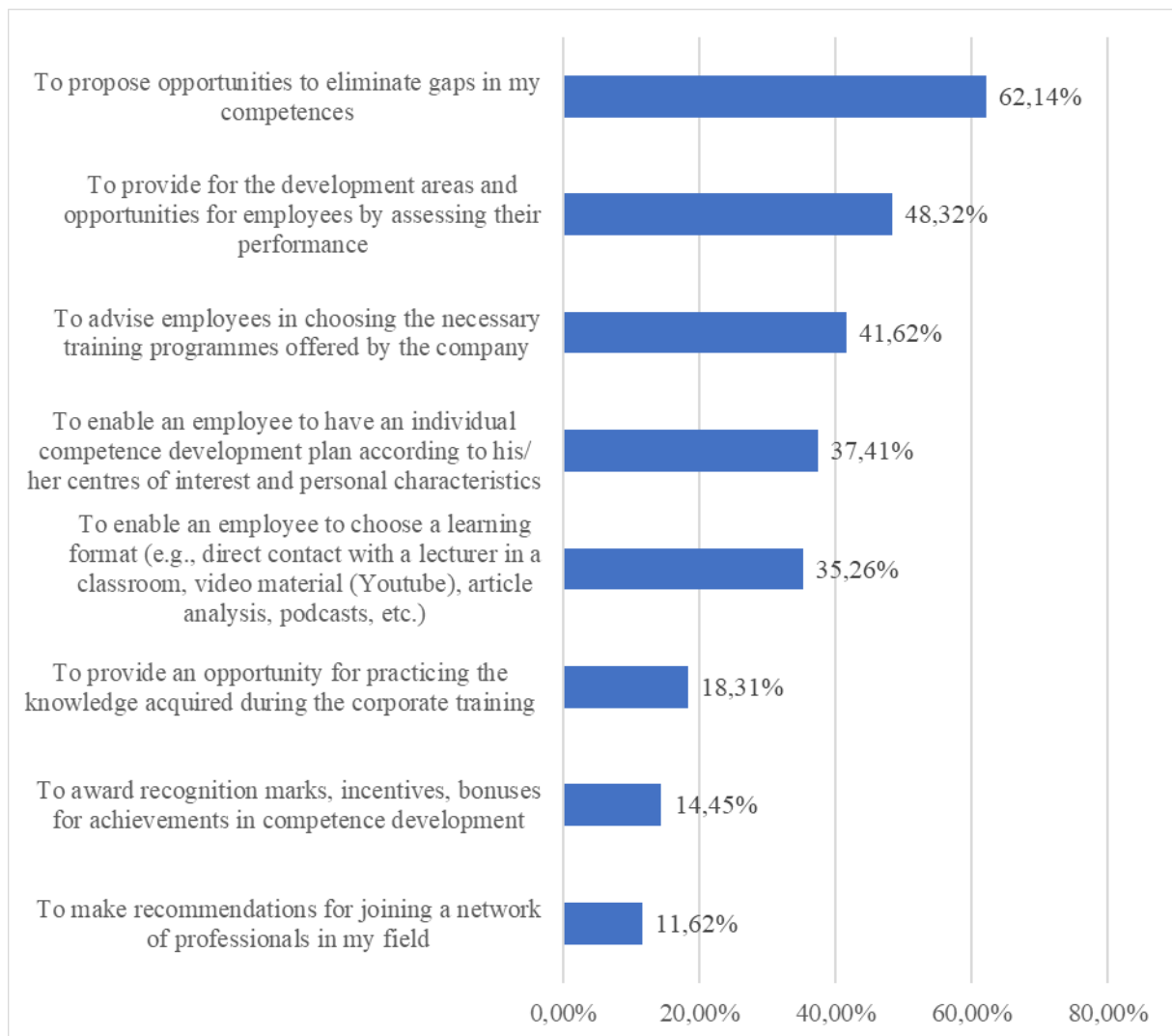


Figure 10 Percentage of Attitudes toward Competence Development Opportunities

The research data demonstrate that the statement “*To propose opportunities for eliminating gaps in my competences*” is dominating, i.e., 62.14 percent. There is a statistically significant difference ($p=0.001 < 0.05$) in the age group

(45-60 years of age). So, it can be argued that fewer older people support the above statement (43.25%) because they have more experience and, possibly, see no competence gaps. In this case, we need to be especially clear: what motivates employees to learn is the benefit they get from learning. This motivation is one of the most powerful factors in employee involvement in learning activities and competence development (Tremblay, Chênevert, & Hébert, 2012). The proposal *“To provide for the development areas and opportunities for employees by assessing their performance”* received a little less support (48.32 percent), since only this assessment allows a learner to surpass himself or herself (Laveault, 2019). Respondents were quite active in supporting the proposal *“To advise employees in choosing the necessary training programmes offered by the company”* (41.62 percent). Even the most self-sufficient employees need support and advice (Pennaforte, 2015). Our research shows a lack of encouragement, recognition, and advice. Improvement of management practices is a great opportunity for staff training teams or those in charge thereof to pursue more effective performance. An annual performance review is not enough. Employees are happy when their supervisor recommends training programmes, offers opportunities for improvement, and approves the right competence acquisition goals.

Conclusions

The empirical study suggests that its hypothesis is validated. The study has found that although the acquisition of competences, trainings held, and employees' self-learning are not identical phenomena, almost half of the study participants do not distinguish among them. Accordingly, the abovementioned part of respondents is not aware that training covers the transmission of information and knowledge, while learning – perception and memorisation thereof, and that this does not necessarily mean putting knowledge into practice, competence development, or a positive effect on professional activities.

Most of the research participants believe that training makes it possible or partially possible to solve any problems of a professional or personal nature. This attitude should be treated as a negative factor in staff training strategies in the acquisition and development of professional competences.

The research participants believe that they will need different competences in the future, therefore, the revision and upgrading of staff training strategies is the matter of topical interest.

According to more than half of the survey participants, their organisations have persons in charge of staff training, however, their staff training and competence development activities, as well as the effectiveness of the measures taken were rated as low on average. So, only one in five respondents approves

their organisation's staff training plan, which can be attributed to the ineffectiveness of existing employee training measures.

The study has revealed that employees learn independently through a variety of channels and formats. The practice of those responsible for employee training would receive greater recognition if they integrated various learning opportunities, such as analysis of experiences, examples, videos, podcasts, etc. into the professional activities of employees. Just as well the respondents consider self-learning to be dominated by multimedia tools, smartphones, tablets, software applications, professional networks, and so on. Such self-learning activities might be attributed to a company's efforts to train its employees. However, there is a lack of insight into the competences acquired by employees through self-learning. With incomplete data on employee self-learning and learning objectives, those in charge of staff training are only able to provide standardised and fundamentally ineffective staff training strategies. Therefore, the employee self-learning datasets, currently used by many innovative companies, should be enlarged.

The study highlights the main preferred strategic changes to staff training so as to use the opportunities for self-learning and competence development offered by a workplace. More than half of the survey participants are in favour of showing more interest in actual and real self-learning practice of employees. More than a third of all respondents support new principles for employee training and competence development, which enable the integration of self-learning into professional activities as a place for self-improvement and competence development. More than half of the survey participants are in favour of shifting from training to the acquisition of competences, by adapting the competence assessment to the elimination of the identified gaps.

More than half of the survey participants observe the application of new, strategically important principles of staff training in a company. The rest of respondents, however, are sceptical and do not see any change. For those who speak positively about the application of the strategic principles for staff training in a company, training means an open area that provides greater opportunities for progress in independent learning and competence development. On the contrary, for those who are against staff training – it is a closed, vertically managed field, where a content, tools, and resources are planned and developed by persons in charge of employee training, thus, constraining human curiosity, creativity, free choice, and initiative.

It is suggested for corporations: to be open to employees' wills and seek to implement strategic changes to employee development by integrating self-learning into daily independent activities; to show interest in actual and real self-learning practice of employees; to apply new principles of staff training, by shifting from employee training management to competence development

incentives, from the formation of staff training content to the creation of learning environment and an integrated learning ecosystem; to move from training to the acquisition of competences, by adapting competence assessment to the elimination of identified gaps.

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GRĀMATVEŽA PROFESIONĀLĀS KOMPETENCES VEIDOŠANĀS DARBA VIDĒ TEORĒTISKIE ASPEKTI

Theoretical Aspects of the Formation of Accountant's Professional Competence in Working Environment

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Abstract. *The last few years have seen significant changes in the world economy and by extension in accounting. Modern accountants have an important role in global entrepreneurship. As a result, the majority of employers prefer candidates with advanced accounting or auditing experience, knowledge of IT, including accounting and internal audit software, and good foreign language skills. The article contains an analysis of the content and components of the professional competence of accountants working in Latvia. The theoretical review is based on the information gathered and analysed from open sources and scientific databases.*

Keywords: *Accountant, knowledge, skills, professional competence.*

Ievads

Introduction

Strauji attīstoties pasaules ekonomikai, pieaug pieprasījums pēc finanšu vadības profesionāļiem. Tikai nepārtraukti mācoties un iegūstot progresīvas finanšu zināšanas un profesionālās prasmes, viņi var sekot līdz laika attīstībai.

Nenoteiktība pasaules ekonomikā ir krasi pārveidojusi grāmatvedības un finanšu profesionāļu lomu un ieguldījumu. Strauji mainīgos apstākļos tiek būtiski koriģēta uzņēmējdarbības vide un līdz ar to tiem mainīta arī grāmatvedības profesija un grāmatveža loma. Lai neatpaliktu no mainīgās uzņēmējdarbības vides un tehnoloģiju attīstības, ir jāanalizē grāmatvežiem nepieciešamās jaunās kompetences un jāievieš izmaiņas grāmatvežu kompetenču uzlabošanā.

Mūsdienu strauji mainīgajos apstākļos Latvijā likumdevēji bieži veic izmaiņas vai ievieš korekcijas normatīvajos aktos, kas ietekmē uzņēmumu

darbību. Grāmatvedim ir ne tikai pastāvīgi jāseko jaunākajām normām, bet arī jāprot tās pielietot.

Nepārtraukta grāmatvežu izglītība ir profesionālās pilnveides darbība, kuras pamatā ir nepārtrauktas mācības, kā arī augsti kvalificētu ekspertu sagatavošanas un sertificēšanas apstākļu radīšana, ar mērķi ir uzlabot viņu izglītību.

Raksta mērķis ir teorētiski izpētīt grāmatveža profesionālās kompetences struktūru un veidošanās iespējas darba vidē. Teorētiskais pētījums balstīts uz datu bāzu un atvērto resursu apkopojumu un analīzi.

Grāmatveža kompetences strauji mainīgajos apstākļos *Competences of an Accountant in Rapidly Changing Circumstances*

Lai arī pēdējā laikā interese par profesionālās kompetences veidošanās procesu ir pieaugusi, tautsaimniecības nozares speciālistu profesionālā kompetence joprojām ir nepietiekami attīstīts un teorētiski vāji pētīts aspekts (Telovata, 2019). Arī grāmatveža profesionālās kompetences veidošanās problēmai netiek pievērsta pietiekama uzmanība, neskatoties uz to, ka tā ir viena no nepieciešamākajām profesijām mūsdienu pasaulē.

Šī pētījuma kontekstā kompetences ir definētas kā zināšanu un prasmju apkopojums, kas darbiniekam ļauj efektīvi rīkoties savā darbā dažādās situācijās. Zināšanas ir tas, ko cilvēks zina, bet prasmes - ko var darīt (Stone et al., 1996). Grāmatvedības akadēmiķi un organizācijas atzīst, ka ir būtiski nošķirt šos divus terminus, īpaši ar grāmatvedību saistītās zināšanas un prasmes (Stone et al., 1996; Deppe et al., 1991). Savukārt Ahmeds (2003) "zināšanas" iedala divās galvenajās kategorijās - "knowing-that" un "knowing-how". Saskaņā ar šo pieeju, ir iespējams, ka darbinieks zina, kas viņam jādara, bet nevar zināt, kā to paveikt. Ahmeda izveidotā zināšanu kategorija "knowing-how" ir sinonīms terminam "prasmes", savukārt "knowing-that" zināšanas, kuras iegūst mācoties. (Damasiotis et al., 2015)

Mūsdienās kompetence tiek definēta kā spēja veikt atbilstošus uzdevumus līdz noteiktam prasmju līmenim strauji mainīgos apstākļos. Tā prasa efektīvu attiecīgo prasmju un īpašo īpašību pielietošanu, kas parasti ir iespējama tikai pēc īpašas praktiskas pieredzes iegūšanas (Borgonovo, Friedrich, & Wells, 2019).

Grāmatvedības kontekstā profesionālā kompetence ir spēja pietiekamā prasmes līmenī pierādīt nepieciešamās tehniskās un profesionālās prasmes, vērtības, ētiku un attieksmi, lai veiktu profesionāla grāmatveža lomu tādā veidā, kas atbilst darba devēju vajadzībām un vēlmēm, klientiem, vienaudžiem un sabiedrībai. Tehniskās zināšanas ir nepieciešamas, bet nepietiekamas grāmatveža lomai - profesionāli grāmatveži sabiedrībai rada vērtību ne tikai

zinot, kā uzskaitīt darījumus vai noteikt nodokļu atbilstību, bet vēl svarīgāk, izmantojot profesionālu vērtējumu, piemēram:

- Palīdzība novērtēt risku
- Uzraudzība un finanšu pārskatu kvalitātes un pārredzamības nodrošināšana
- Līderības nodrošināšana ētisku lēmumu pieņemšanā
- Sarežģītu darījumu un jaunu problēmu novērtēšana, lai nodrošinātu finansiālu
- Ziņošana joprojām ir aktuāla un noderīga lietotājiem
- Attiecīgo standartu un noteikumu interpretācija un piemērošana
- Pieeja informācijai ar kritisku un apšaubāmu domāšanu
- Piedalīšanās stratēģiskajā plānošanā (Borgonovo, Friedrich, & Wells, 2019).

Profesionāli grāmatveži, izmantojot profesionālu vērtējumu un kompetenci, atbalsta uzņēmējdarbības lēmumu pieņemšanu, līdz ar to veicinot sabiedrības uzticību, ekonomisko stabilitāti un izaugsmi.

Grāmatveža profesionālās kompetence starptautiskajos standartos un teorijās

Professional Competences of an Accountant within International Standards and Theories

Darba devēji meklē profesionālus grāmatvežus, kuriem ir tehniskas zināšanas un prasmes, īpaši tagad, kad biznesa darījumi kļūst sarežģīti, tāpēc profesionālo grāmatvežu loma ir ļoti svarīga.

Levochko (2008) norada, ka spēju veikt jebkādu profesionālo darbību definē termins “profesionālā kompetence”, kas tiek saprasts kā indivīda sarežģīta integrēta kvalitāte, kas nav individuālu zināšanu, prasmju vai atsevišķu darbību kopums, bet gan spējas un prasmes, kas ļauj veikt darbību kopumā.

Starptautiskā grāmatvežu federācijas (IFAC) Starptautisko izglītības standartu padomē (IAESB) ir apstiprināti starptautiskie grāmatveža izglītības standarti (IES), kur redzamas grāmatvežu izglītības attīstības vadlīnijas. Tajās ir noteiktas trīs pamata kompetences: (1) tehniskā kompetence; (2) profesionālās prasmes un (3) profesionālās vērtības, ētika un attieksme (Abbasi, 2014).

2018. gada decembrī IAESB pieņēma pārskatīto IES N.7 “Profesionālās pilnveides turpināšana”, kurā precizēti principi un prasības, kā profesionālās grāmatvedības organizācijas mēra, uzrauga un īsteno savas profesionālās pilnveides sistēmas. IES 7 (Pārskatīts) skaidri norādīts, ka visiem profesionālajiem grāmatvežiem kvalitatīvai savas lomas izpildei ir jāattīsta un

jāuztur profesionālā kompetence, kas sastāv no tehniskajām prasmēm, profesionālajām iemaņām, profesionālās ētikas, vērtībām un attieksmēm un praktiskās darba pieredzes. Profesionālā kompetence mūsdienu izpratnē pārsniedz principu, standartu, jēdzienu, faktu un procedūru pārzināšanu; tā ir tehniskās kompetences, profesionālo prasmju un profesionālo vērtību, ētikas un attieksmes integrēšana un piemērošana.

2019. gada jūnija sanāsmē IAESB apstiprināja 2., 3., 4. un 8. starptautiskos grāmatveža izglītības standartu, kuros tiek uzsvērtas jomas, balstītas uz informācijas un komunikācijas tehnoloģiju (IKT) prasmju un profesionālā skepticisma mācīšanās rezultātiem. Tiek uzsvērts, ka mūsdienās šīs prasmes ir iekļaujamas grāmatveža profesionālās kompetences struktūrā.

Savukārt ASV sertificēto valsts grāmatvežu institūta (AICPA) arī izstrādātajā pamatkompetenču sistēmā, kas nepieciešamas visiem grāmatvedības profesijas studentiem, noteiktas trīs galvenās kompetences: (1) funkcionālās vai tehniskās kompetences, (2) personīgās kompetences; (3) plašas uzņēmējdarbības perspektīvas kompetences (Rufino, Payabyab, & Lim, 2018).

Latvijā 2018. gada 7. februārī Profesionālās izglītības un nodarbinātības trīspusējās sadarbības apakšpadomē tika saskaņots Grāmatveža profesijas standarts, kas atbilst ceturtajam Latvijas kvalifikāciju ietvarstruktūras līmenim (LDDK, 2018). Profesijas standartā, kas ir Profesiju klasifikatora daļa, ir noteikti profesijai atbilstošie profesionālās darbības pamatuzdevumi un pienākumi, profesionālās kvalifikācijas pamatprasības, kā arī nepieciešamās zināšanas, prasmes un attieksmes. Apgūstot grāmatvedību profesionālajās studijās, pašreiz iespējams piešķirt tikai 3. vai 4. kvalifikācijas līmeni, jo nav izstrādāts 5. kvalifikācijas līmenis grāmatvežu profesionālai izglītībai. Grāmatveža profesionālais standarts nosaka trīs svarīgas jomas profesijai: (1) profesionālās darbības pamatuzdevumu un pienākumu kopsavilkumu; (2) profesionālās darbības pamatuzdevumu un pienākumu izpildei nepieciešamās prasmes un attieksmes, profesionālās zināšanas un kompetences; (3) profesionālās darbības pamatuzdevumu un pienākumu izpildei nepieciešamās prasmes un attieksmes, vispārējās zināšanas un kompetences.

Rufino (2016) norāda, ka kompetences pamatsastāvu veido “zināšanas”, “prasmes” un “vērtības”. Šādas kompetences ir nepieciešamas arī profesionāliem grāmatvežiem, lai viņi būtu kvalificēti darbam savā profesijā un veiksmīgi tiktu galā ar mūsdienu mainīgās vides un profesijas nākotnes izaicinājumiem. Savukārt, Klii un Oussii (2013) pētījums atklāj, ka grāmatvedības karjeras panākumiem ir nepieciešamas personīgās prasmes, savstarpējās saskarsmes prasmes, intelektuālās prasmes un IT prasmes, jo tās novērtē un pieprasa darba devēji.

Rufino, Payabyab un Lim (2018) pētījumā norāda, ka profesionāla grāmatveža kompetence sastāv no zināšanām un izpratnes, prasmēm un vērtībām (skat. 1.tab.).

1.tabula. *Grāmatveža pamatprasmes (Rufino, Payabyab, & Lim, 2018)*

Table 1 *Core Competency Requirements for Accountants (Rufino, Payabyab, & Lim, 2018)*

Zināšanas un izpratne	
Grāmatvedības zināšanas un izpratne	par finanšu pārskatu sagatavošanu, profesijas būtību, pamatprincipiem un uzlabotiem revīzijas standartiem, izmaksu pārvaldību un vadības grāmatvedību, nodokļu likumiem un uzņēmējdarbības un komerclikumiem, korporatīvo finanšu un kapitāla tirgiem, uzlabotu finanšu pārskatu sniegšanu
Organizatoriskās un uzņēmējdarbības zināšanas	zināšanas par to, kā identificēt uzņēmējdarbības problēmas un novērtēt iespējamus risinājumus un alternatīvas, izmantojot uzņēmuma, klienta datus.
Informācijas tehnoloģijas (IT)	zināšanas un izpratne par uzņēmējdarbības sistēmu jaunāko IT praksi, iekšējo kontroļu noteikšanu un novērtēšanu datorizētās sistēmās, standartu izstrādi IT pielāgošanai, ieviešanai un lietošanai un uzņēmuma IT drošības pasākumu pārvaldību.
Prasmes	
Starppersonu attiecību prasmes	prasme strādāt un labi reaģēt uz darba spiedienu; prasmes uzklaut, novērtēt un noskaidrot problēmas, cienīt un reaģēt ar iespējam un alternatīvām darbā ar klientiem, līdzstrādniekiem, patērētājiem, sabiedrību un citām ieinteresētajām personām; prasme radīt vidi, kur atzīst, atbalsta, ciena un atzinīgi vērtē darbinieku, kolēģu un klientu dažādību; un spēja veikt lielu uzdevumu un projektu apjomu, neapdraudot stingrus termiņus.
Komunikācijas prasmes	Grāmatvedim ir jāprot mutiski un rakstiski izskaidrot ziņojumus, finanšu un revīzijas rezultātus līmenī, kas piemērots viņa auditorijai, vadībai vai klientiem. Prasme uzdot skaidrus, kodolīgus un atbilstošus jautājumus, lai iegūtu vēlamu informāciju uzdevuma veikšanai, un prasmes uzstāties ar jaudīgām prezentācijām, pārliecināt vai pārliecināt citus cilvēkus un efektīvi vest sarunas attiecīgajām pusēm.
Intelektuālās prasmes	Profesionāli grāmatveži prot sasaistīt datus, zināšanas un ieskatu no dažādiem avotiem un disciplīnām un saistīt potenciālās iespējas un draudus ar uzņēmuma vai klienta, ar kuru viņi strādā, vīziju, stratēģiju, mērķiem un kultūru kopumā, pieņemot apzinātu lēmumu.
Vērtības	
Profesionālā ētika un morāle	Konfidencialitātes ievērošana, uzcītība un piesardzīgums, profesionālo pienākumu veikšana, pašdisciplīna, likumu un noteikumu prasību ievērošana, rūpes par to personu interesēm, kurām šie pakalpojumi ir paredzēti.

Rufino, Payabyab un Lim (2018) norāda, ka profesionāli grāmatveži savā darbā:

- pielieto profesionālo godīgumu, objektivitāti un neatkarību, izvairās no faktiskiem vai šķietamiem interešu konfliktiem;
- ir godīgi un objektīvi, paziņojot gan nelabvēlīgu, gan labvēlīgu finansiālu un nefinansiālu informāciju,
- izsaka objektīvu profesionālu vērtējumu un viedokli visām iesaistītajām pusēm un atturas no jebkādas darbības, kas kaitētu spējai ētiski pildīt pienākumus vai diskreditētu profesiju.

Grāmatveža profesionālās kompetences attīstīšanas iespējas darba vidē *Development Opportunities of an Accountant's Professional Competences in Working Environment*

Grāmatvežu profesionālās kompetences attīstība pamatā tiek aplūkota no grāmatvedības zinātnes attīstības viedokļa, kas tikai daļēji aptver visas tās zināšanas, prasmes un vērtības, ko pieprasa darba devēji un mūsdienu strauji mainīgie apstākļi. Nepārtraukta grāmatvežu izglītība ir profesionālās pilnveides darbība, kuras pamatā ir nepārtrauktas mācības, kā arī augsti kvalificētu ekspertu sagatavošanas un sertificēšanas apstākļu radīšana, ar mērķi ir uzlabot viņu izglītību.

Grāmatveža darba saturs pastāvīgi mainās, dažas viņa funkcijas tiek integrētas dažādās uzņēmuma vadības apakšsistēmās, kā rezultātā grāmatvedis kļūst par uzņēmuma "līdzpārvaldnieku" un viņa lomas šajā procesā pastāvīgi palielinās (Alaverdova, 2012, Getman, 2010, Zhyvets, 2018).

Pašreizējos apstākļos raksturo fakts, ka grāmatvedības izglītības sistēmā un profesionālajā grāmatvedības izglītībā, notiek radikālas izmaiņas. Šajos apstākļos neatrisinātie jautājumi ir šādi:

- Sadarbība ar grāmatvedības izglītībā iesaistītajām galvenajām aģentūrām, to koordinēšana un saskaņotība (piemēram, ar Izglītības un zinātnes ministriju), lai programmas tiktu pielāgotas mūsdienu izaicinājumiem;
- programmu pilnveidošana augstākās izglītības un profesionālās izglītības iestādēs, kā arī neformālās izglītības iestādēs ar mērķi apmierināt jaunākās starptautiskās tendences un izaicinājumus.

Joprojām pastāv jautājumi par IT prasmju un zināšanu līmeni, kas nepieciešams uzņēmējdarbībai un kas jāsniedz grāmatvežiem (Maisurah et al., 2012; Ahmed, 2003). Atbildot uz to, daudzas starptautiskas grāmatvedības organizācijas atzīst šo vajadzību un ir ierosinājušas dažādus IT kompetenču ceļvežus dažādām mūsdienu grāmatvedības lomām. Šīs kompetences var iegūt

gan grāmatvedības izglītības posmā, gan profesionālās kompetences attīstīšanas posmā, izmantojot formālās un neformālās izglītības programmas (Damasiotis, et al., 2015, Rufino et al., 2018).

Mūsdienās grāmatveža profesionālās kompetences izpēte tiek veikta, izmantojot holistisku pieeju, ņemot vērā līderības, uzvedības un vadības aspektus (Trivellas & Reklitis, 2014; Damasiotis, et al., 2015), kā arī emocionālo inteliģenci, stresu darbā, darba motivāciju, kultūru un kvalitātes vadību (Trivellas & Santouridis, 2009; Damasiotis, et al., 2015).

Pārmaiņas ir raksturīgas videi, kurā strādā profesionāli grāmatveži, kas viņiem liek attīstīt un uzturēt savu profesionālo kompetenci visā karjeras laikā. Pārmaiņas tiek ieviestas daudzās jomās un sniedz ietekmi uz grāmatveža profesionālo kompetenci darba vidē no daudziem avotiem, piemēram sabiedrības cerības, globalizācija, tehnoloģiju attīstība, uzņēmējdarbības sarežģītība, izmaiņas sabiedrībā, likumdošanas regulēšana un uzraudzība. Tā rezultātā nepārtraukta mācīšanās ir neatņemama grāmatveža profesionālās kompetences attīstības sastāvdaļa darba vidē, jo grāmatvežiem jāiegūst mūsdienām atbilstošas zināšanas un prasmes, kas viņiem nepieciešamas, lai paredzētu un pielāgotos izmaiņām procesos, tehnoloģijās, profesionālajos standartos, normatīvajās prasībās, darba devēja prasībās un citās jomās.

Secinājumi **Conclusions**

Grāmatveža profesionālā kompetence ietver intelektuālās, starppersonu, komunikācijas, personiskās un organizatoriskās prasmes, bet neaprobežojas ar līderību, personību, komandas darbu, komunikācijas prasmēm, uzraudzību un vadību. Šī kompetence ietver zināšanas un izpratni, prasmes un vērtību veidošanos profesionālajā praksē piemērojamo standartu ietvaros, bet neaprobežojas, piemēram, ar nodokļu, revīzijas standartu vai likumu un noteikumu analīzi.

Grāmatvežu pamatkompetence - zināšanas, prasmes un vērtības - tiek realizēta profesionāla grāmatveža ikdienas darbā, neatkarīgi no uzņēmējdarbības formas, nozares, nostrādāto gadu skaita un amata līmeņa.

Grāmatvedības izglītībai ir izšķiroša nozīme, lai realizētu to, ko no grāmatveža sagaida ne darba devēji, bet arī grāmatvedības profesijas saglabāšana. Grāmatvedības izglītības procesā jāveicina ne tikai zināšanas, prasmes un vērtības, bet arī jāattīsta un jāuzlabo grāmatvežu savstarpējās saskarsmes prasmes. Mācību metodikā jāietver darbības, kas veicina komandas darbu, līderību un to, kā tikt galā ar laika spiedienu un darbu apjomu.

Grāmatvedis ikdienas darbā savas profesionālās kompetences ietvaros atšķir to, kas morāli ir pareizs vai nepareizs. Profesionāls grāmatvedis ir objektīvs, neatkarīgs un ievēro profesionālo kompetenci, lai efektīvi veiktu savu darbu. Tāpat grāmatveža profesionālā kompetence nosaka strādāt sabiedrības, studentu, klientu, vadības un citu ieinteresēto personu interesēs, kuriem tiek sniegti pakalpojumi, stingri ievērot konfidencialitāti un profesionālo ētiku.

Summary

Professional competence of an accountant includes intellectual, interpersonal, communication, personal and organizational skills, but it is not limited to leadership, team working, communication skills, supervision and management. This competence includes knowledge and comprehension, skills and value formation within the framework of standards applicable in professional practice, but it is not limited, for instance, to the analysis of tax, auditing standards or laws and regulations.

The key competence of an accountant – knowledge, skills and values – is implemented during daily work of an accountant, regardless of form, sphere of entrepreneurship, length of service and level of position.

Accountancy education has a crucial role in order to implement everything what is expected of accountants by employers and in order to preserve the accountancy profession. The accountancy education process shall promote not only knowledge, skills and values, but it shall also develop and improve communication skills among accountants. Teaching methodologies should include activities, promoting team work, leadership and advices on how to cope with deadlines and amount of work.

During his/her daily activities within the framework of professional competencies an accountant has to distinguish between morally correct or incorrect things. A professional accountant is impartial, independent and he/she respects his/her professional competence in order to perform one's work well. Furthermore, the accountant's professional competence imposes to work for the interests of society, students, clients, managers and other stakeholders, who receive services, to strictly protect confidentiality and professional ethics.

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SOCIAL ENTERPRISE FOR EMPOWERMENT OF WOMEN FROM ETHNIC MINORITY: CHALLENGES AND POSSIBILITIES

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Abstract. *The empowerment of women and the improvement of their political, social, economic and health status is a highly important and is one of the Global Sustainable Goals. Gender Equality index 2020 of EU-28 is 67.9, slowly increasing (European Institute for Gender Equality, 2021). Although there are some researches related to women empowerment and economic development (Siba, 2019, Hemalatha, 2020, Doss, Malapit, & Comstock, 2020, etc.) or social entrepreneurship (Biggeri, Testi, Bellucci, Daring, & Persson, 2018; Briar-Lawson, Miesing, & Ram, 2020, etc.), combining these two fields and especially adding women from ethnic minority is very rare in scientific researches.*

The aim of the paper is to highlight challenges and possibilities of social entrepreneurship for empowerment of women from ethnic minority.

This paper is based on Erasmus+ project “Empowering Women from Ethnic Minorities Through Social Enterprises” (abbrev. EMwoSE) analysis of both quantitative and qualitative data retrieved in Ireland, United Kingdom, Germany, Greece, Italy, Lithuania and Turkey. International data gives to the paper additional value in picturing the bigger picture of the situation in European countries.

However, women starting a social enterprise is itself contributing to women’s empowerment, assuming that social enterprise can be culturally more acceptable for women from ethnic minorities.

Keywords: *empowerment, entrepreneurship, ethnic minority, social enterprise, women.*

Introduction

The empowerment of women and the improvement of their political, social, economic and health status is a highly important and is one of the Global Sustainable Goals (United Nations, 2015). Gender Equality index 2020 of EU-28 is 67.9, slowly increasing (European Institute for Gender Equality, 2021).

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both quantitative and qualitative data retrieved in Ireland, United Kingdom, Germany, Greece, Italy, Lithuania and Turkey. International data gives to the paper additional value in picturing the bigger picture of the situation in European countries.

Social Entrepreneurship as Tool for Empowerment of Women from Ethnic Minority: Theoretical Background

Empowerment is the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes (Petesch, Smulovitz, & Walton, 2005). Mandal (2013) distinguishes five types of empowerment: social, educational, economic, political and psychological.

Referring to European Commission (2021), work is the best way to empower women economically. Unfortunately, women still remain underrepresented in the labour market. 67% of women are currently in employment, whereas men's employment stands at 79%. Gender employment gap is 12%. Moreover, the burden of private and care responsibilities, the unpaid work, still rests largely on women's backs.

Women constitute only 34.4 % of the self-employed in the EU and 30 % of start-up entrepreneurs (European Parliament, 2020). Social entrepreneurship has been key in promoting women empowerment. Although there are some researches related to women empowerment and economic development (Siba, 2019, Hemalatha, 2020; Doss, Malapit, & Comstock, 2020, etc.) or social entrepreneurship (Biggeri, Testi, Bellucci, During, & Persson, 2018; Briar-Lawson, Miesing, & Ram, 2020, etc.), combining these two fields and especially adding women from ethnic minority is very rare in scientific researches.

However, women starting a social enterprise is itself contributing to women's empowerment, assuming that social enterprise can be culturally more acceptable for women from ethnic minorities.

Europe hosts the largest number of international migrants (82 million), followed by Northern America (59 million) and Northern Africa and Western Asia (49 million). Moreover, women represented 51.4% of migrants in Europe (United Nations, 2019).

Therefore, women from ethnic minorities is large enough part in Europe, therefore, the scientists should pay more attention to these women issues in order to provide recommendations for practitioners in order to ensure more effective ways to overcome the problems.

Beside this, while focusing on the lack of scientific researches combining fields such as women empowerment and economic development, social

entrepreneurship as well ethnic minorities, the paper is based on empirical research in order to fill these gaps.

Methodology of the Research

As lack of the scientific researches was determined while analysing previous findings, empirical research was made in the framework of two-year Erasmus+ project EMwoSE. The research provides both quantitative and qualitative data by women from ethnic minorities and experts in the field (providing education and training, business consulting, supporting immigrant women refugees, legal support, etc.). The research was aimed to reveal challenges and possibilities of social entrepreneurship for empowerment of women from ethnic minority.

Research sample. The survey results from 105 women from ethnic minorities working in social enterprises and survey results from 79 expert agencies or organisations that support women in social enterprises have been collected. The survey results are from seven European countries (Ireland, UK, Germany, Greece, Italy, Lithuania, and Turkey).

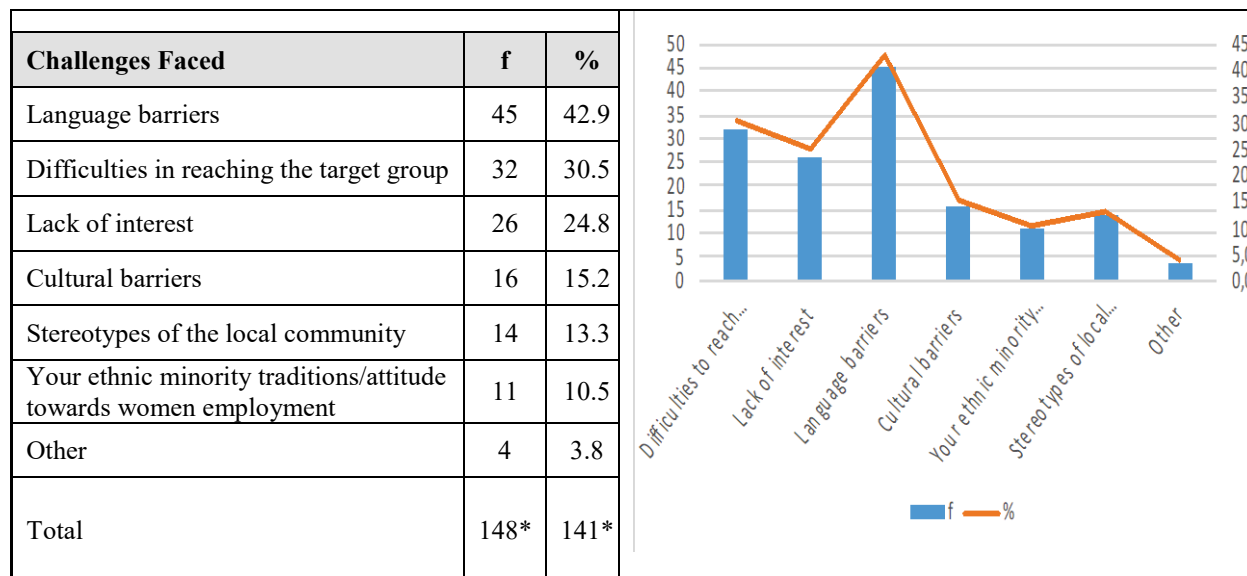
Research instrument and procedure. A questionnaire “Empowering Women from Ethnic Minorities Through Social Enterprise” was designed and developed by partners of the project EMwoSE. The questionnaire mainly focused on understanding of women from ethnic minorities, regarding the existing knowledge, practical skills that they needed, challenges and obstacles in order to get engaged to the social enterprise world. Here, in the paper, only part of the received data will be analysed.

Data analysis. The quantitative data was analysed through descriptive statistical analysis techniques. The frequencies, percentages, and average/mean scores are calculated and presented in figures.

Findings of the Research

Revealing challenges. The participants were asked to describe the challenges women from ethnic minorities face working in their business. The results are presented in Figure 1 below.

According to findings in Figure 1, the biggest part of women has faced language barriers throughout their business life, following by difficulties reaching the target groups, and lack of interest. The number of women facing cultural barriers, stereotypes of the local community, their own ethnic minority traditions/attitude towards women employment.



*: Participants was able to respond with multiple answers. Hence total frequency (148) is more than the number of participants (105). Thus, the total response is more than 100%.

Figure 1 The Challenges Women from Ethnic Minorities Face Working in their Business (EMWOSE, 2020)

Table 1 To What Extent Women Agree with the Challenges They Face in Their Organization (EMWOSE, 2020)

Barriers and Obstacles	Disagree Strongly f (%)	Disagree f (%)	Indifferent f (%)	Agree f (%)	Agree Strongly f (%)	Total f (%)
Social (low public awareness, social integration etc.)	10(10.8%)	10(10.8%)	21(22.6%)	31(33.3%)	21(22.6%)	93(100%)
Financial (business plan/model, financial literacy etc.)	7(7.7%)	12(13.2%)	15(16.5%)	35(38.5%)	22(24.2%)	91(100%)
Cultural (market attitudes, beliefs and expectations etc.)	10(11.1%)	9(10%)	20(22.2%)	31(34.4%)	20(22.2%)	90(100%)
Psychological (Lack of self-confidence, lack of self-esteem etc.)	11(12.4%)	16(18%)	11(12.4%)	22(24.7%)	29(32.6%)	89(100%)
Entry into the business sector	11(12.5%)	15(17%)	7(8%)	33(37.5%)	22(25%)	88(100%)
Institutional (lack of personnel with commercial acumen)	11(12.9%)	15(17.6%)	17(20%)	28(32.9%)	14(16.5%)	85(100%)

The individuals who took part in the survey were mostly either agreed or strongly agreed, that the above-mentioned challenges are truly faced by the women from ethnic minorities. Among the listed challenges, social (low public awareness, social integration etc.) 93%, financial (business plan/model, financial literacy etc.) 91%, and cultural (market attitudes, beliefs and expectations etc.) 90% found to be the mostly frequent by the women form ethnic minorities.

The survey has revealed that most of women do not feel any barriers regarding the fact they belong to ethnic minority, but others feel to be discriminated comparing with locals, have language barrier. So, communication problems/language barriers, financial issues, childcare provision, cultural barriers and housing issues are on the top of issues faced by women from ethnic minority (Table 2).

Table 2 To What Extent Women Agree with the Issues They Face When Working in Business (EMWOSE, 2020)

Issues and Challenges	Disagree Strongly		Disagree		Indifferent		Agree		Agree Strongly		Total	Avg.
	f	%	f	%	f	%	f	%	f	%		
Communication problems / Language barriers	15	17	11	12.5	9	10.2	25	28.4	28	31.8	88 (%100)	3.45
Financial issues	15	15	10	10.4	17	17.7	25	26	29	30.2	96 (%100)	3.44
Childcare provision	17	17	18	18	15	15	23	23	24	24	97 (%100)	3.19
Cultural barriers	15	15	17	17	13	13	37	37	18	18	100 (%100)	3.16
Housing issues	17	17.5	11	11.3	24	24.7	30	30.9	15	15.5	97 (%100)	3.15

As can be seen from Table 2 above, together with the “Communication Problems / Language Barrier (avg.=3.45)” and the “Financial issues (avg.=3.44)” found to be the more challenging issues for the women from ethnic minorities in SEs. Moreover, the majority of the women agreed that they have faced challenges and barriers in all areas in the given list.

While entering the market, women form ethnic minorities have faced such problems and challenges as lack of financial resources (f=38; 57.6 %), human resources (f=17; 25.8 %), lack of contacts/networking (f=17; 25.8%), etc. (Figure 2).

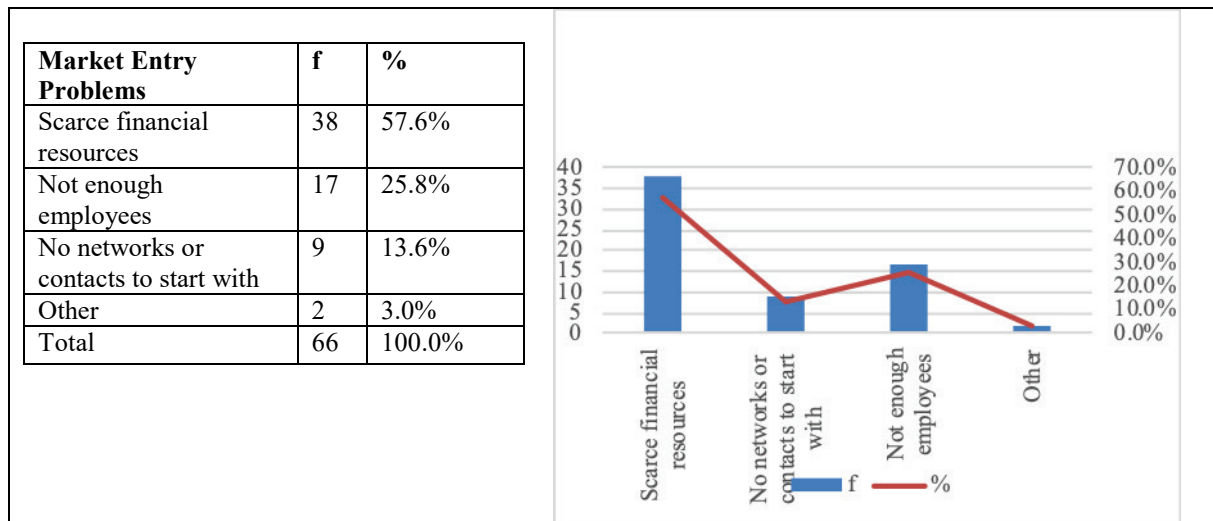
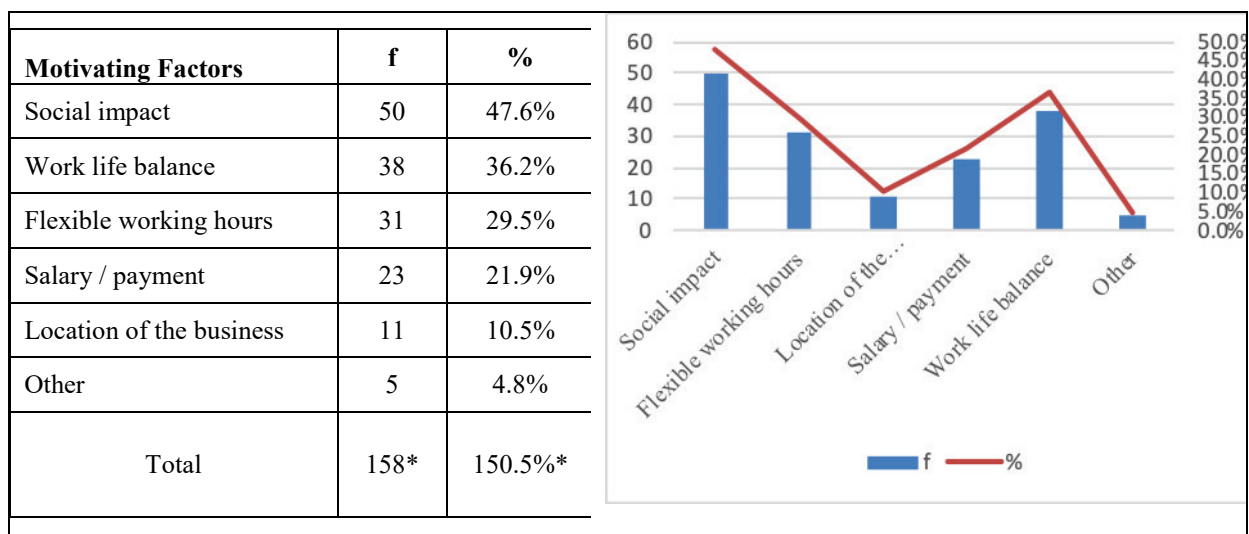


Figure 2 *The Problems and Challenges Faced by Women from Ethnic Minorities When Entering the Market (EMWOSE, 2020)*

However, the survey showed that the biggest challenge for women from ethnic minorities is language of the country they live. And it could influence other challenges as communication problems, problems of socialisation with locals, lack of contacts/networking.



*: Participants can respond with multiple answers. Hence total frequency (158) is more than the number of participants (105). Thus, the total response is more than 100%.

Figure 3 *The Motivating Factors for You to Start or to Work in Social Business (EMWOSE, 2020)*

Finding opportunities. The research has identified motivation as a factor to overcome the challenges and problems. The most frequent factor of motivation to work in social enterprise is social impact by 47.6%. The following factor is

work-life- balance by 36.2%. The next one is flexible working hours by 29.5%, which also can be related to work-life balance. Salary/payment, location of the business, and the others are the least motivational factors (Figure 3).

The participants were also asked whether they have been offered any supports/guidance by intuitions regarding funding their business. 27 (26.7%) of the participants marked “yes”, while, 47 participants (44.8%) marked “no”.

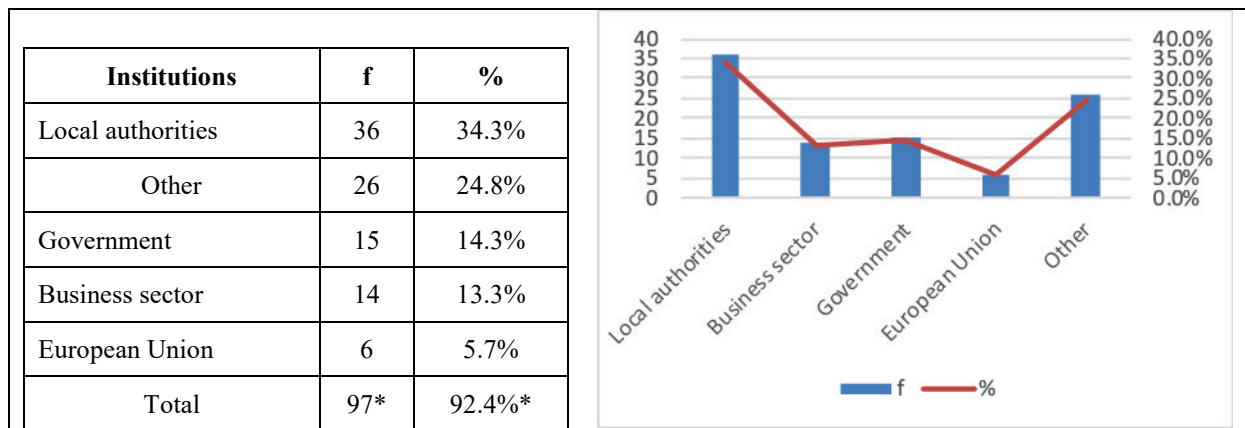


Figure 4 Institutions Have Offered Support to Women from Ethnic Minorities in Founding Business (EMWOSE, 2020)

The respondents mentioned that almost the one-third (1/3) of them (36 participants) answered that local authorities helped them. They also got help from the government (f=15), the business sector (f=14), and European Union (f=6). Some participants (f=26) also received help from other institutions (Figure 4).

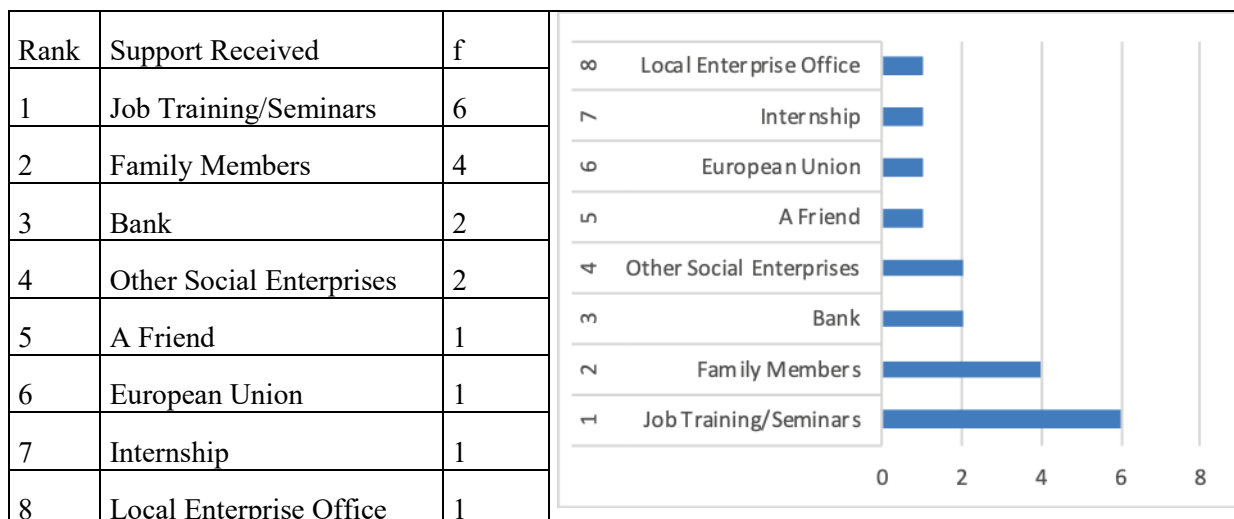


Figure 5 Support Has Got by Women from Ethnic Minorities (EMWOSE, 2020)

When looked at the type of the support institutions offered to the women from ethnic minorities: 42.9 % (f=45) financial support, and 39% (f=41) mentoring and coaching; 39% (f=41) training, 23.8% (f=25) have received other type of support. The supports offered are several, but the most offered one is job training/seminars. The next one is by family members. It is followed by banks and other social enterprises.

In the survey, the experts were also asked the advice they would offer to other women who want to return to the workplace/ to start their own business/ to get a job.

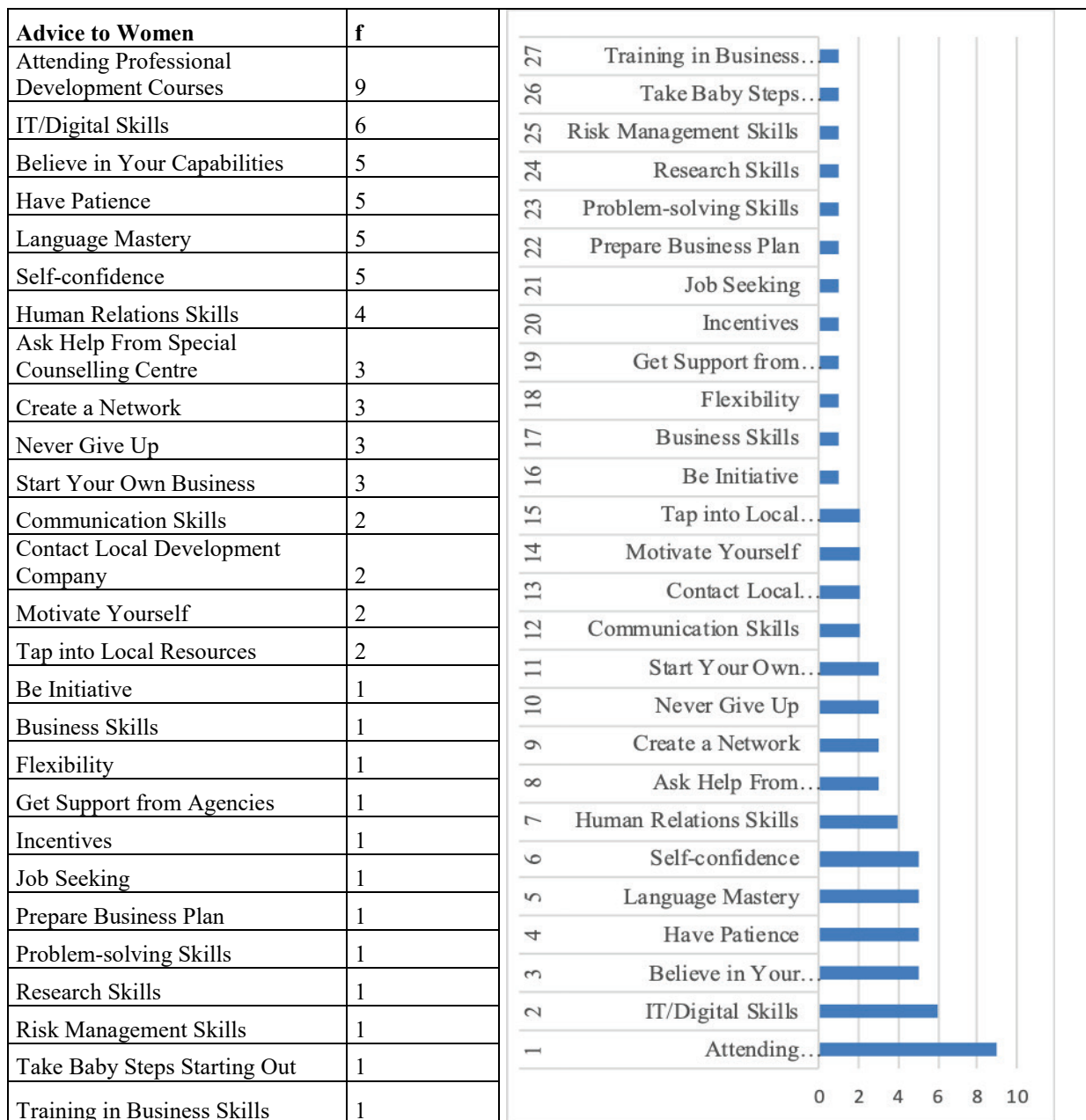


Figure 6 Experts' Advises to Women from Ethnic Minorities Who Want to Return to the Workplace/ to Start Their Own Business/ to Get a Job (EMWOSE, 2020)

The most popular advice given was attending professional development courses. It was also advised to have developed IT/digital skills. Believing in one's capabilities, having patience, mastering language, and self-confidence follows them. The next one is human relations skills which also does not share the same number of advisers with other suggestions (Figure 6).

The research showed that women from ethnic minorities are not alone with challenges of business, they can get support either from local authorities or government. The most frequent answer to overcome issues was provided as educational offer to develop necessary competencies.

Conclusions

Work is considered the best way to empower women economically. Analysis of scientific literature highlighted that social entrepreneurship has been key in promoting women empowerment.

Survey results of quantitative and qualitative data revealed challenges that women from ethnic minorities have faced and what opportunities they have while working in social enterprise.

Referring to survey results, more than 50% of women from ethnic minorities faced communication problems/language barriers (avg. 3.45) while developing social business. Moreover, it may be assumed that it also influences other challenges as communication problems, problems of socialisation with locals, lack of contacts/networking.

The results of the study revealed that almost 60% of women from ethnic minorities complain about the lack of financial resources while entering the market of social business. After summarising the results of the survey results, lack of human resources (more than 25%) could be also considered as a reason of the lacking financial resources.

After analysis of the obtained results, it was found that women from ethnic minorities are able to overcome these challenges with the help of their motivation (social impact: almost 50%, work life balance: almost 40%, flexible working hours: almost 30%, which also can be related to work-life balance) and support of others: mostly by local authorities (more than 30%). The survey has especially highlighted the need to develop lacking competencies by women from ethnic minorities in order to run social business.

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СОПРОВОЖДЕНИЕ ПРОФЕССИОНАЛЬНОЙ КАРЬЕРЫ ПЕДАГОГА-ПСИХОЛОГА

Professional Career Support Teacher-psychologist

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Abstract. *The article deals with the problem of professional development of a psychologist's career in education. The authors of the article clarify the concept of «professional career»; identify the necessary and sufficient organizational and managerial conditions for supporting the professional career of a teacher-psychologist; conclude that the development of auto psychological competence in teachers-psychologists at the stage of professional adaptation is relevant.*

Analysis of the results of the study showed that young educational psychologists are focused on professional self-development, but they need competent support for their professional career. The authors describe the experience of practical implementation of organizational and managerial conditions for supporting the professional career of a teacher-psychologist, and note the positive dynamics of the participants' readiness to build a professional career. The article is intended for public reading, as well as for those who are interested in psychological and pedagogical research.

Keywords: *readiness, environmental picture, preschool age.*

Введение **Introduction**

Профессиональная деятельность занимает значительную часть жизни современного человека, поэтому особую актуальность в настоящее время приобретает проблема профессионального становления личности, построения человеком профессиональной карьеры. Данной проблеме посвящен целый ряд разноаспектных исследований в области психологии, социологии, менеджмента, в которых отражено значение профессионального роста для развития личности (Super, 1953; Super, 1957; Gottfredson, 1981; Vudkok & Frensis, 1991; Lent, Brown, & Hackett, 1994;

Markova, 1996; Borges & Savickas, 2002; Derkach, 2004; Charovalov, 2005; Lotova, 2008). Так, основоположник «психологии карьеры» Д.Е. Сьюпер (Super, 1957), трактуя понятие «карьера» как последовательность и комбинацию ролей, выполняемых человеком в течение жизни, подчеркивает первостепенное значение профессиональной карьеры для развития общей «Я-концепции» человека. По мнению А.К. Марковой (Markova, 1996), карьера есть не столько овладение профессией, сколько образ жизни, влияющий на становление личности. М. Вудкок и Д. Френсис (Vudkok & Frensis, 1991), говоря о роли профессиональной карьеры, приходят к выводу о необходимости обучения человека самоменеджменту.

Профессия педагога-психолога становится все более значимой для образовательной практики, о чем свидетельствует, в частности, утверждение в Российской Федерации профессионального стандарта «Педагог-психолог (психолог в сфере образования)» (Professional'nyj standart «Pedagog-psiholog (psiholog v sfere obrazovaniya)», 2015). Руководители образовательных организаций заинтересованы в высококвалифицированных педагогах-психологах, а успешность молодого специалиста уже в начале карьеры - это возможность относительно быстро достичь высокого уровня профессионального мастерства. Т.В. Заморская (Zamorskaya, 2004) выявляет специфику становления профессионализма педагога-психолога в условиях института повышения квалификации. Однако, на наш взгляд, педагогу-психологу, особенно молодому, самостоятельно, вне освоения дополнительных профессиональных программ строить профессиональную карьеру достаточно сложно.

Существующее противоречие между потребностью в профессиональной карьере и недостаточной разработанностью путей профессионального роста обусловило поиск оптимальных условий сопровождения профессиональной карьеры педагога-психолога. Результаты этого поиска отражены в данной статье, целью которой является обоснование организационно-управленческих условий сопровождения профессиональной карьеры педагога-психолога. Достижение цели осуществлялось с помощью теоретического (анализ литературы), эмпирического (эксперимент), а также количественных методов исследования.

Теоретический анализ основных понятий *The Theoretical Analysis of Basic Concepts*

Понятие «карьера» стало предметом научного исследования в первой половине прошлого столетия. Основы для изучения профессионального поведения человека, связанного с профессиональным развитием, заложил

Ф. Парсонс (Parson, 1909). В настоящее время исследования, посвященные карьере, можно разделить на две группы: социологические, трактующие карьеру как изменение общественного положения человека, в том числе связанное с должностным ростом (Gysbers & Moore, 2012; McCall & Hollenbeck, 2013; Poole, Langan-Fox, & Omoder, 2013; Rigotti, Korek, & Otto, 2014); психологические, рассматривающие карьеру с точки зрения развития личности, самореализации в профессии (Super, 1957; Vudkok & Frensis, 1991; Markova, 1996; Klimov, 1998; Pryazhnikov, 2012). В связи с этим различают узкое и широкое понимание карьеры. В узком понимании карьера - это должностное продвижение. В широком смысле карьера предполагает профессиональное продвижение как профессиональный рост. В широком понимании термин «карьера» имеет глубокое психологическое наполнение, обусловленное наличием внутренних мотивов профессиональной деятельности и высокой степенью самоактуализации человека как профессионала.

Психологическая составляющая карьеры отражена в целом ряде определений. Д.Е. Сьюпер (Super, 1953; Super 1957) рассматривает карьеру как совокупность взаимосвязанных событий, комбинацию социальных ролей, которые вместе с интересами, способностями формируют направленность личности на профессиональное развитие. Сущность карьеры, с точки зрения М. Савикаса (Borges & Savickas, 2002), состоит в развитии и реализации «Я-концепции» в профессиональных ролях. Н.С. Пряжников (Pryazhnikov, 2012) соотносит карьеру с профессиональным самоопределением, имеющим в качестве основы «Я-концепцию» личности и представляющий собой череду выборов в процессе взросления человека. Для Е.А. Климова (Klimov, 1998) карьера — это профессиональный жизненный путь. Успешная карьера, по мнению автора, во многом связана с осмысленным профессиональным самоопределением, являющимся новообразованием старшего подросткового возраста или ранней юности (15-18 лет). В.А. Чикер (Chiker, 2004), говоря об успешной карьере, выделяет ее критерии: объективный, подразумевающий социальный успех, и субъективный, связанный с удовлетворенностью жизненной ситуацией. Таким образом, независимо от широты понимания профессиональной карьеры, все трактовки данного понятия указывают на его существенную характеристику - успешность человека в профессии и, как следствие, успешность в жизни.

В последнее время в науке особую актуальность приобретают проблемы психологического сопровождения карьеры (Fonarev, 2005), прогнозирования ее успешности и разработки программ выбора карьеры (Lotova, 2008; Eliseeva, 2020), профессиональной идентичности, карьерной ориентации, карьерной установки (Shejn, 2002). Во всех исследованиях так

или иначе поднимаются вопросы карьерной компетентности, под которой Е.А. Могилевкин (Mogilyovkin, 2005) понимает совокупность мета-умений, позволяющих свободно оперировать инструментарием для реализации карьерных целей.

Если для многих видов профессиональной деятельности можно четко разграничить сферу «профессиональных» и «личностных» компетенций специалиста, то, как отмечает А.А. Бодалев (Bodalev, 2008), в работе педагога, педагога-психолога эти два рода качеств тесно взаимосвязаны между собой. Отсюда, формирование всех компонентов карьерной компетентности педагога-психолога базируется на интеграции профессиональных и личностных качеств, в том числе сформированности навыков принятия решений, гибкости мышления, лидерских способностях, аутопсихологической компетентности и др.

От индивидуальных особенностей и направленности личности зависит выбор вида карьеры. В своем исследовании мы, в первую очередь, ориентируем педагогов-психологов на построение стабильной карьеры, предполагающей профессиональный рост в определенном роде деятельности. Однако сегодня, в динамично изменяющихся условиях жизни, важно быть готовым к построению комбинированной карьеры, связанной с цикличностью периодов стабильной профессиональной деятельности и вынужденной смены профессии, профессиональной переподготовки.

Организация эмпирического исследования и его результаты *Organization of Empirical Research and Its Results*

С целью эмпирического доказательства организационно-управленческих условий сопровождения профессиональной карьеры педагога-психолога нами было проведено экспериментальное исследование, включающее в себя три этапа: констатирующий, формирующий, контрольный. В опытно-экспериментальной работе приняли участие 15 педагогов-психологов образовательных организаций г. Пскова (Россия) и г. Ташкента (Узбекистан). Причина немногочисленности выборки - ее специфика: начинающих карьеру в образовательной организации педагогов-психологов в целом немного. Положительным моментом является то, что небольшое количество участников эксперимента дало возможность экспериментаторам организовать индивидуальную работу с каждым испытуемым.

На констатирующем и контрольном этапах эксперимента нами были применены следующие диагностические методики: опросник «Мотивация карьеры» А. Ноэ, Р. Ноэ, Д. Бахубера в адаптации Е.А. Могилевкина

(Mogilyovkin, 2007); опросник «Профессиональная готовность» А.П. Чернявской (Chernyavskaya, 2001); тест «Якоря карьеры» Э. Шейна в адаптации В.А. Чикер (Chiker, 2004). С помощью данных методик нами выявлялась готовность педагогов-психологов к построению профессиональной карьеры. На основании полученных данных с помощью метода прямого ранжирования все участники эксперимента были отнесены к одному из четырех рангов: первый ранг (I) - высокая степень готовности к построению профессиональной карьеры; второй (II) - степень готовности выше средней; третий (III) - средняя степень готовности; четвертый (IV) - степень готовности ниже средней.

На формирующем этапе эксперимента мы практически реализовывали организационно-управленческие условия сопровождения профессиональной карьеры педагога-психолога. Отметим, что данные условия рассматривались не изолированно, а как компонент сконструированной нами модели сопровождения профессиональной карьеры педагога-психолога (таблица 1).

Таблица 1. Модель сопровождения профессиональной карьеры педагога-психолога
Table 1 Model of Professional Career Support for a Teacher-psychologist

Цель	Подготовить педагога-психолога к самостоятельному построению профессиональной карьеры
Ценности	Личность; профессиональная деятельность; индивидуальные потребности; свобода; стабильность
Принципы	Принцип индивидуальности; принцип целостности; принцип успешности и эффективности; принцип гуманизации; принцип целесообразности
Организационно-управленческие условия сопровождения профессиональной карьеры педагога-психолога	<ul style="list-style-type: none"> - использование совокупности структурированных информационно-практических занятий, предполагающих применение современных форм взаимодействия (онлайн-конференция, онлайн-лекция, «почтовый ящик», онлайн-тренинг, онлайн-опрос, онлайн-диагностика); - формирование положительной установки на построение стабильной карьеры; - реализация индивидуального подхода в процессе сопровождения карьерного роста педагога-психолога посредством тьюторства
Результат	<i>Прямой</i> - готовность педагога-психолога к самостоятельному построению профессиональной карьеры; <i>косвенный</i> - готовность педагога-психолога к сопровождению профессиональной карьеры педагогов, начинающих профессиональную деятельность в образовательной организации

Как видно из таблицы 1, целью работы по сопровождению профессиональной карьеры педагога-психолога является подготовка к самостоятельному построению профессиональной карьеры, связанная с углублением теоретических знаний и совершенствованием практических умений в области профессионального саморазвития. Такие знания и умения помогут педагогу-психологу самостоятельно, без сопровождения тьютора (наставника) строить профессиональную карьеру. Тьютор необходим в первые годы профессиональной деятельности, так как профессиональная адаптация связана с освоением новой (трудовой) ситуации. Прямым результатом всей работы мы видим готовность педагога-психолога к самостоятельному построению профессиональной карьеры. Однако нами предполагается и достижение косвенного результата - формирование готовности педагога-психолога к сопровождению профессиональной карьеры педагогов, начинающих профессиональную деятельность в образовательной организации.

Организационно-управленческие условия представляют собой комплекс обстоятельств, от которых зависит успешность организации и управления деятельностью человека. Сформулированные нами условия сопровождения профессиональной карьеры педагога-психолога можно отнести к категории организационно-управленческих, так как с помощью представленной модели педагога-психолога смогут подготовиться к самостоятельному целеполаганию, планированию своего карьерного роста и управлению им, к самоорганизации профессиональной деятельности, то есть к самоменеджменту.

Каким образом мы эмпирически доказывали организационно-управленческие условия сопровождения профессиональной карьеры педагога-психолога?

Первое условие предполагало разработку и практическую реализацию структурированных информационно-практических занятий, предполагающих применение современных форм взаимодействия (онлайн-конференция, онлайн-лекция, форма «почтовый ящик», онлайн-тренинг, онлайн-опрос, онлайн-диагностика). Мы сконструировали 9 информационно-практических модулей, в рамках которых осуществлялось взаимодействие с участниками эксперимента (таблица 2).

Таблица 2. Цикл информационно–практических занятий «Путь к успеху»
 Table 2 Cycle of Information and Practical Training «The Path to Success»

№	Модуль	Цель	Формы
1.	«Движение вверх»	Актуализировать и углубить теоретические знания педагогов-психологов в области психологии карьеры, профессиональной акмеологии	Онлайн-лекция с элементами беседы; онлайн-опрос; онлайн-диагностика
2.	«Планирование карьеры»	Познакомить педагогов-психологов с основными видами карьеры, понятием «планирование карьеры», смыслами карьерных перемещений	Онлайн-лекция; групповая работа на платформе Zoom
3.	«Выбор карьеры»	Помочь осуществить самоанализ понимания социальных и личностных функций своей профессиональной деятельности, рефлексию готовности к реализации этих функций	Онлайн-лекция с элементами беседы; онлайн-тренинг; онлайн-опрос; «почтовый ящик»
4.	«Мотивационные рычаги»	Обеспечить положительную мотивацию построения «горизонтальной» и «вертикальной» профессиональной карьеры	Онлайн-лекция; «почтовый ящик»; онлайн-тренинг; онлайн-диагностика
5.	«Управление временем как фактор карьерного роста»	Познакомить с основами управления временем как важнейшей частью стратегического построения карьерного пути	Онлайн-лекция; онлайн-тренинг; «почтовый ящик»
6.	«Жизненные ценности и приоритеты»	Способствовать развитию умений расставлять приоритеты на основе жизненных ценностей	Онлайн-лекция; онлайн-тренинг; онлайн-диагностика
7.	«Навыки самоорганизации. Карьерные цели»	Способствовать развитию инициативности, умений целеполагания и принятия решений в области профессиональной карьеры	Онлайн-лекция; онлайн-тренинг; «почтовый ящик»; групповая работа на платформе Zoom
8.	«Профессиональное самопознание»	Способствовать развитию положительной профессиональной и общей «Я-концепции»	Онлайн-тренинг; «почтовый ящик»; онлайн-диагностика
9.	«Нет предела совершенствованию»	Помочь проанализировать аутопсихологическую компетентность в вопросах карьеры, наметить возможные пути профессионального саморазвития	Онлайн-конференция; онлайн-диагностика; «почтовый ящик»

Специфика цикла занятий состоит в:

- опоре на знания разных отраслей психологии, в частности, знаний психологии профессиональной деятельности;
- наличию разноплановости тематики и тематической логики;
- интеграции теоретических знаний и практических действий;
- дистанционном режиме, предполагающем экономию времени и учет индивидуальных возможностей специалиста;
- направленности на развитие аутопсихологической компетентности у педагогов-психологов.

В процессе реализации второго условия сопровождения профессиональной карьеры педагога-психолога мы ориентировались на формирование положительной установки молодых специалистов в отношении карьерного роста и профессиональной самореализации. Например, преодолевали установку «У меня ничего не получится» (явление «сопротивление изменениям»). Ее основные причины - страх взять на себя ответственность, боязнь профессиональной оплошности (ошибки), боязнь не соответствовать ожиданиям других. Выход из зоны комфорта всегда преследуется стрессом, боязнью чего-то нового, неизученного. Как выйти из ситуации? Во-первых, осознать свои страхи, что позволит подчинить эмоциональную составляющую рациональной и, как следствие, постепенно избавиться от страха при построении профессиональной карьеры. Во-вторых, вспомнить ситуацию успеха в какой-либо деятельности, что позволит укрепить веру в свои возможности. В-третьих, четко определить для себя, в чем именно возникают сомнения и пошагово работать над негативными установками.

Таблица 3. Результаты ранжирования испытуемых на констатирующем и контрольном этапах эксперимента

Table 3 Results of Ranking of Subjects at the Ascertaining and Control Stages of the Experiment

Ранг	Количество испытуемых (в %)	
	констатирующий этап	контрольный этап
I	6,7	20,1
II	33,3	59,8
III	33,3	20,1
IV	26,7	0

В процессе моделирования третьего условия мы выступали в роли тьютора, который координирует работу педагога-психолога в процессе построения карьеры с помощью индивидуального консультирования (личные онлайн-беседы с использованием программного обеспечения

Skype, обсуждение личных достижений участников эксперимента в форме «почтовый ящик») и групповой работы (онлайн-лекции с элементами беседы, онлайн-тренинг, онлайн-конференция).

Представим сравнительные результаты исходной и итоговой диагностики участников эксперимента (таблица 3).

Для оценки достоверности сдвига в значениях под влиянием экспериментальных воздействий нами использовался G-критерий знаков (Sidorenko, 2000). Выяснили, что количество нулевых реакций - 4, количество отрицательных сдвигов - 0 (G-эмпирическое), типичный сдвиг - положительный. Определили критическое значение критерия знаков G (при уровне значимости $p \leq 0,01$) - 1. G-эмпирическое меньше, чем G-критическое, следовательно, сдвиг является достоверным.

Таким образом, анализ результатов эксперимента позволил нам обнаружить положительную динамику в развитии у педагогов-психологов готовности к построению профессиональной карьеры.

Заключение *Conclusions*

Положительная динамика в развитии у педагогов-психологов готовности к построению профессиональной карьеры обнаружилась в значительном скачке в отношении направленности на построение стабильной профессиональной карьеры; в становлении автономности в принятии решений, планировании карьеры; в проявлении позитивных эмоций, сопровождающих действия планирования и построения карьеры в образовательной организации. Педагоги-психологи стали более ориентированы на саморазвитие: значимой стала не столько вертикальная карьера, сколько горизонтальная, позволяющая удовлетворить потребность в профессиональной самоактуализации.

Итак, эффективность сопровождения профессиональной карьеры педагога-психолога образовательной организации обеспечивается комплексом следующих организационно-управленческих условий: использованием совокупности структурированных информационно-практических занятий, предполагающих применение современных форм взаимодействия (онлайн-конференция, онлайн-лекция, «почтовый ящик», онлайн-тренинг, онлайн-опрос, онлайн-диагностика); формированием положительной установки на построение стабильной карьеры; реализацией индивидуального подхода в процессе сопровождения карьерного роста педагога-психолога посредством тьюторства.

Summary

The problem of professional development of the individual currently does not lose its relevance. The phenomenon of «professional career» is the subject of many fundamental and applied scientific research, the authors agree that the concept of «career» identical to the concept of «success» and professional careers has a positive effect on the development of general «self-concept» personality.

The profession of a teacher-psychologist is in demand in educational practice, which is experiencing an ongoing need for specialists who are ready for self-development and self-improvement, building a stable professional career and, as a result, improving the quality of their work. The analysis of interaction with teachers-psychologists during the experiment showed that the main reasons that do not allow achieving a high degree of readiness to build a professional career are the lack of knowledge in the field of career psychology, insufficient development of auto psychological competence, as well as the lack of tutor support at the stage of professional adaptation.

Our research allowed us to prove the effectiveness of organizational and managerial conditions for supporting the professional career of a teacher-psychologist. The system of actions to support the professional career of a teacher-psychologist is a kind of meta-activity, that is, an activity to manage other activities. Only with this approach, the teacher-psychologist becomes an active subject of activity for the construction of a proper professional program.

Summing up the results of the research, it is important to focus on at least two points. Firstly, in the process of supporting a professional career, it is necessary to help teachers-psychologists to realize the importance of professional growth for the development of a common «self-concept», that is, to form an attitude that building a career is not an end in itself, but a tool of personal development. Secondly, it is necessary to constantly improve the methods of professional training of teachers-psychologists, the search for new forms of professional development, especially in the context of digitalization of education.

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MUZICĒŠANA ĢIMENĒ – MĀJMĀCĪBAS TRADĪCIJAS UN IZAICINĀJUMI MŪŽIZGLĪTĪBAI

Music-Making in a Family – the Lifelong Learning Traditions and Challenges of Home-Learning

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Abstract. *The aim of the present study is to compare the training of folk musical instrument play within families until 1960s in the traditional cultural environment of Latvia's countryside to the opportunities of the same training in the early 21st century – outside the formal education but within the context of life-long learning.*

Data for the research were acquired in field study, questionnaires in the virtual environment, and also the information from the Internet on the offer of music schools and institutions of non-formal education in the field of musical instrument play was used.

Until 1950s and '60s the basics of the musical instrument play were acquired by children within their respective families, with the musicians of the elderly generation being their tutors. The aspirations to become a musician were sparked by family traditions, the high esteem of a musician as a personality by the local community, as well as the child's own willingness and perseverance in acquisition of an instrument's technique. The field-study interviews show musicians always referring to past experience and family tradition, namely, some member of the family already was a musician – granddad, dad, uncle – while granny or mother have been good singers. In the cultural environment of 1960s' countryside the two traditions – singing and music-making – are separated. The tradition of singing (both everyday and church) and its functioning in the local community was mainly sustained by the women, while playing the instruments was the part of the men.

The children started to acquire the technique of a musical instrument roughly at the age of 6–10 years, while the full status of a musician within a community could be acquired by the aspiring player as early as at the age of 16, after having played for several times at some community events (an open-air dance “zaļumballe” or an evening get-together „večerinka” in Latgale). During that period the playing skills were acquired without the ability to read score, based on musical memory.

At the end of the 20th century and the early 21st most frequently the playing skills of an instrument (like violin, clarinet or accordion) are acquired attending some institution of music education, while both children and adults have an opportunity to learn the technique of some folk instrument (zither, harmonica, little drum, etc.) within some non-formal education setting or that of an amateur group.

The present study analysis the factors either helping or hindering the continuation of the folk music-making tradition in the cultural environment of the 21st century, based on the

opportunities for learning the techniques within the home-learning and life-long learning contexts.

Keywords: *home-learning, life-long learning, folk music, music-making in family.*

Ievads **Introduction**

Mūzikas instrumentu spēle individuāli vai mūzikas grupā, dejošana deju kolektīvā, dziedāšana korī vai folkloras kopā, vai dalība jebkurā citā interešu izglītības kolektīvā daudzās pasaules valstīs ir pašsaprotama nodarbošanās dažāda vecuma cilvēkiem. Baltijas valstīs, t.sk. Latvijā, interešu izglītības programmu saturs bieži vien tiek veidots, pamatojoties uz vietējo (valsts, reģiona, novada utt.) kultūras mantojumu, kura pamats ir tradīcija gan pārmantotā no paaudzes uz paaudzi, gan jaunradītā (dažreiz izdomātā, pielāgotā vai aizgūtā) tradīcija. Savukārt cilvēkam uzdodot jautājumu par kāda specifiska amata prasmēm, svētku svinēšanu u.c., bieži vien saņemam atbildi, ka tā ir darījuši ģimenē vairākās paaudzēs. Ģimenē iegūtā pieredze un zināšanas ir pamats visai turpmākajai cilvēka dzīvei.

Pamatoti rodas jautājums vai mūziku un mūzikas instrumentu spēles prasmi 21. gadsimta sabiedrībā arī iespējams apgūt ģimenē un kādi apstākļi to sekmē vai bremsē? Līdz ar šo jautājumu tiek izvirzīts pētījuma mērķis - salīdzināt tautas mūzikas instrumentu spēles apmācību ģimenē līdz 20. gadsimta 60. gadiem tradicionālajā Latvijas lauku kultūrvidē un tautas mūzikas instrumentu spēles apmācības iespējas 21. gadsimta sākumā ārpus formālās izglītības mūzizglītības kontekstā, kad muzicēšanas tradīcija ir transformējusies vai dažādu apstākļu ietekmē zudusi. Pamatojoties uz tautas muzicēšanas tradīciju raksturojošajiem komponentiem, pētījumā tiek raksturotas mājniecības (mācīšanās ģimenē) metode, salīdzinājumā ar mūzikas apgūšanu izglītības iestādēs, kā arī tiek meklēta atbilde uz jautājumu, vai muzicēšanas tradīcija ģimenē sekmē mūzikas izglītības iegūšanu profesionālās ievirzes izglītības iestādēs (mūzikas skolās) un ārpus izglītības iestādēm.

Datu ieguvei tiek izmantota lauka pētījuma metode, anketēšanas metode digitālajā vidē un interneta vidē iegūstamā informācija par mūzikas skolu un citu interešu izglītības iestāžu piedāvājumu mūzikas instrumenta spēles apgūšanai. Pētījuma tiek analizēti faktori, kas veicina vai traucē tautas muzicēšanas tradīcijas dzīvotspēju 21. gadsimta kultūrvidē, pamatojoties uz muzicēšanas apguves iespējām mājniecībā un mūzizglītības kontekstā.

Pētījuma metodes un teorētiskais pamats ***Research Methods and Theoretical Basis***

Pētījuma pamatā ir izmantots lauka pētījums. Tautas muzicēšanas tradīciju autore pēta kopš 2001. gada, individuāli tiekoties ar muzikantiem lauku kultūrvidē un veicot paplašinātās vai strukturētās intervijas. Kopš 2001. gada ir veiktas 180 intervijas, kur katrā no intervijām ir uzdoti iepriekš nosauktie jautājumi.

Pētījuma uzsākšanai, raksta autore 2001. gadā organizē publisku pasākumu – Tautas muzikantu svētki Barkavas kultūras namā. Uz pasākumu tiek aicināti muzikanti, kuri muzicēšanas prasmes apguvuši ģimenē, pašmācībā. Kritēriji muzicēšanas prasmes apguvuši ģimenē, un instrumenta spēles prasmes apguvis pašmācības ceļā, noteica vecākā gadagājuma (dzimuši 20. gadsimta 20. - 30. gados) muzikantu dalību svētkos, kas ir tiešie mantotās tradīcijas nesēji. Minētais pasākums ir uzskatāms par lauka pētījuma uzsākšanu, jo tiek veiktas pirmās strukturētās intervijas. Periodā (2001-2019) katru gadu tiek organizēts pasākums tautas muzikantiem, kura laikā tiek veiktas intervijas un notiek citu materiālu dokumentēšana. Paralēli tiek organizēts izpētes darbs dažādās Latvijas vietās, intervējot teicējus muzikantus vai citus teicējus, kas var sniegt liecības par ģimenes (tautas) muzicēšanas tradīciju.

Tēmas par mūzikas mācīšanos ģimenē izpētei, nozīmīgi interviju jautājumi ir sekojoši: cik gadu vecumā iemācījās spēlēt ģimenē esošo mūzikas instrumentu, vai mācījās patstāvīgi vai palīdzēja kāds no ģimenes locekļiem, kāds bija pirmais mūzikas instruments muzicēšanas apgūšanai?

Datu iegūšanai par mūzikas izglītības iegūšanas nepieciešamību muzicēšanas ģimenē tradīcijas kontekstā, tiek pētīta izmantojot anketēšanas metodi interneta vietnes google.com veidlapu. Anketēšana tiek veikta 2021. gada janvāra mēnesī un sastāv no 10 jautājumiem par personīgajām mūzikas instrumenta spēles prasmēm, mūzikas instrumenta spēles prasmēm ģimenē vai iepriekšējās paaudzēs, paaudzēs mantotajiem mūzikas instrumentiem, kā arī anketā iekļauta demogrāfiskā sadaļa: dzimums, vecums, nodarbošanās, dzīvesvieta (lauku reģions, pilsētvide, Rīga, Pierīga), līdz ar to anketu rezultātus var analizēt dažādos šķērsgriezumos.

Pirms jautājumiem anketā tiek skaidrots vārda ‘mūziķis’ un ‘muzikants’ lietojums atbilžu variantos, kur ar vārdu mūziķis tiek saprasts – mūziķis, kuram ir muzikālā izglītība, spēlē vienu vai vairākus mūzikas instrumentus, to spēli apguvis mūzikas izglītības iestādē (piem., spēlē akordeonu, saksofonu, vijoli, ģitāru, trompeti, klavieres utt.). Ar vārdu muzikants tiek saprasts – muzikants, kas instrumenta/-tu spēli apguvis pats, vai no kāda cita muzikanta, nemaz vai minimāli pazīst notis, spēlē pēc dzirdes (piem., spēlē akordeonu, ermoņikas,

vijoli, cītaru utt.). Anketas jautājumi ir ar atbilžu variantiem un iespēju ierakstīt citu atbildi. Anketēšanas mērķauditorijas grupa tiek izvēlēta nejauši, uz e-pasta adresēm aizsūtīt saiti ar anketas jautājumiem, kā arī atļaujot anketas saiti pārsūtīt citiem interesentiem. Visas anketas ir anonīmas un to rezultāti tiek analizēti apkopotā veidā. Kopumā iesūtītas 48 anketas.

Informācijas iegūšanai par mūzikas izglītības iegūšanas iespējām profesionālās ievirzes izglītības iestādēs, interešu izglītībā un citos veidos, tiek apkopota iegūstamā informācija izglītības iestāžu, kultūras iestāžu, biedrību un citu institūciju mājaslapās.

Pētījumu par muzicēšanu ģimenē kā mājmācības tradīciju Latvijā praktiski nav, taču raksta autore pieļauj, ka tas ir tāpēc, ka mūzikas mācīšanās ģimenē nav neviens pētnieks pielīdzinājis mājmācībai, taču pētot tautas muzicēšanas tradīciju un līdz ar to tautas mūzikas instrumentu spēles apgūšanu ģimenē, to var traktēt kā mājmācību.

Mājmācība kā izglītības ieguves iespēja Latvijā tiek traktēta dažādos veidos un tiek šķirta no mājamācības. Mācīšanās mājās jeb mājmācību nodrošina ģimene un Latvijā šāds mācīšanās veids ir atļauts ar likumu. Bērns mājmācībā izglītoties var sākt no pirmsskolas un līdz 6. klasei (Izglītības likums). Latvijā ir samērā maz ģimeņu, kas izglītību bērniem var nodrošināt mājās, bet, lai veicinātu mājmācības attīstību, ir dažādas vecāku, ģimeņu apvienības, kas izglīto ģimenes, skaidrojot mājmācības būtību un pielietojamību. Viena no aktīvākajām nevalstiskajām organizācijām ir „Ģimeņu skolu apvienība”, kas ir definējusi mājmācības būtību, norādot, ka „mājmācības kustības pamatā ir uzskats, ka sabiedrības pamatsūniņa ir ģimene. Tai veselīgi augot, dzīvojot, mācoties un attīstoties, attīstās arī visa sabiedrība kopumā. Šis izglītošanās veids ir dzīves mākslas skola, kurā mācās visi, ne tikai bērns. Audzināšana notiek jebkurā darbībā - mācoties, strādājot vai atpūšoties. Tiek kultivētas ģimeniskas vērtības, pašdisciplīna, mācīšanās notiek drošā un mīlestības pilnā vidē, samazināta stresa apstākļos. ... Tomēr pats galvenais ieguvums ir iespēja bērnam nodot tās vērtības, kuras par pareizām atzīst nevis tā brīža izglītības sistēma, bet konkrētā ģimene” (Kas ir ģimeņu skolas, s.a.).

Masu mediju publikācijās ir pausti dažādi pretrunīgi viedokļi par mājmācības modeli izglītības iegūšanai. Viens no Ģimenes skolu apvienības dibinātājiem Dainis Stikuts, atbalstot mājmācības modeli, uzsver, ka „atšķirība starp abiem izglītošanās modeļiem ir tā, ka ģimenes skolā stundu saraksts nav tik strikts. Proti, ja šodien bērni vēlas rakstīt, tad var rakstīt kaut līdz diviem dienā, nevis no zvana līdz zvanam. Bērns var pabeigt iesāktos darbus vai izpētes procesus, neuztraucoties par to, ka stunda tūlīt beigsies. Protams, apgūti tiek visi priekšmeti, tikai citā ritmā” (Savādāks viedoklis: Mājmācība – alternatīva tradicionālajam izglītības modelim, 2016). Savukārt, attiecībā uz mūzikas mācīšanu Dainis Stikuts norāda, ka mūzika tiek apgūta vietējā mūzikas skolā,

kas liecina, ka mūzikas apgūšana ģimenē jeb mājniecībā netiek nodrošināta. To var izskaidrot ar tautas muzicēšanas tradīcijas transformēšanos vai zudumu 20. gadsimta beigās un 21. gadsimta sākumā, jo tā vairs nepārmantojas tradicionāli ģimenēs no paaudzes uz paaudzi. Latvijas izglītības sistēmā tiek šķirta mūzikas izglītības iegūšana no ģimenes muzicēšanas, kas līdz 20. gadsimta 60. gadiem ir tipiska lauku kultūrvides tradīcija un to raksturo „pieci kritēriji: dzīvā muzicēšana pēc dzirdes, muzikantu vecums, kur par muzikantu kļūst 6-14 gadu vecumā, tautas mūzikas instrumentu lietojums, lokālai kultūrvidei atbilstošas muzicēšanas situācijas, muzikanta individuālais repertuārs, kas var būt mantots vai personīgi dzīves laikā izveidots. Minētie kritēriji ne tikai raksturo individuālo pieredzi, bet lokālo tautas muzicēšanas kultūru kopumā jebkurā laika posmā” (Dukaļska, 2014, 113).

Mūzikas apgūšana ģimenē, instrumentu spēles prasmju apgūšana ir nozīmīgs faktors bērna attīstībai. Mūzikas pedagoģe Lada Matvejeva (*Lada Matveeva*) monogrāfijā „Bērna mūzikas izglītības ģimenē teorija un prakse” (Teorija i praktika muzykal'nogo obrazovaniya rebenka v sem'e) (Matvejeva, 2015) norāda, ka bērna audzināšana ģimenē struktūra iekļauj arī mūzikas izglītības komponenti, kas sastāv no trīs faktoriem: 1) attieksmju kopuma attiecībā uz paaudžu garīgās un morālās pieredzes nodošanu no pieaugušā uz bērnu, izmantojot mūzikas mākslu, 2) noteikumiem, kas reglamentē pieaugušo un bērnu iesaistīšanos sabiedrības muzikālajā dzīvē, 3) prasībām attiecībā uz mūzikas zināšanu, prasmju un iemaņu līmeni, kādam ir jābūt pieaugušajam un bērnam dažādos attīstības posmos. L. Matvejeva, atsaucoties uz sociologa Sergeja Goloda (*Sergej Golod*) pētījumu par ģimenes tipiem, attiecībā uz mūzikas mācīšanu, apgūšanu ģimenē Cariskajā Krievijā izdala divus modeļus: Tautas modelis (*narodnaja model'*) un Muižniecības ģimenes modelis (*dvorjanskaja model'*) (Matvejeva, 2015).

Tautas modelis mūzikas apgūšanai ģimenē Krievijā bija aktuāls līdz pat 20. gadsimta 20. gadiem un tā pirmsākumi meklējami ļoti senā zemniecības pareizticīgo kristīgajā tradīcijā. Tautas modelis muzikālajā audzināšanā bija neatņemama sastāvdaļa visā bērna audzināšanas un socializācijas procesā, kam raksturīgs bija augsts garīgs un morāls pedagoģiskais potenciāls mūzikas mākslā, mūzikas pamatprasmju apgūšanā dabīgā kultūrvidē un to iekļaušanu mūzikas lietojumā kopā ar pieaugušajiem. Saplūstot kopā pareizticīgo kristīgajām tradīcijām ar tautas tradīcijām, tautas mūzika un muzicēšana ģimenē kā ģimenes vērtība tika nodota mutvārdu ceļā no paaudzes uz paaudzi.

Savukārt Muižniecības modelis mūzikas mācīšanai ģimenē sāka veidoties un pastāvēja 17. -18. gadsimtā. Tā apstiprināšana un uzplaukums saistījās ar pārmaiņām un inovācijām Eiropas vērtību sistēmā. Muižniecības modeļa dzīvotspēja vēsturiskajā skatījumā bija samērā neilga, bet rezultatīva un

intensīva. Muižniecības modelim bija izteikta izglītojoša ievirze, pateicoties valdošās klases pārstāvju augstajiem statusa uzdevumiem, kā arī nepieciešamībai apgūt sarežģītu normatīvo rituālismu, kas atšķiras no dabiskajām tradīcijām un prasīja bērnam mērķtiecīgi iesaistīties izglītības procesā. Bērna muzikālā izglītība Muižniecības ģimenes izglītības modelī bija neatņemama vispārējās normatīvās mājas izglītības un audzināšanas sistēmas elements. Mācēt profesionāli spēlēt klavieres bija prestiži un tāpēc muižniecības ģimenes bieži vien bērna izglītošanai instrumenta spēlē ņēma privātstundas pie sabiedrībā atzītiem klavierspēles skolotājiem (Matvejeva, 2015).

Zinātniskā raksta autore pieļauj, ka pamatojoties uz Latvijas teritorijas vēsturisko piederību līdz pat 1918. gadam, iespējams, ka minētie mācīšanās ģimenē modeļi darbojās arī Latvijas teritorijā, īpaši Vitebskas guberņā (Latgales teritorijā).

Serbijas zinātnes un mākslas akadēmijas pētnieces Maja Calic (*Maja Čalić*) un Miomira Djurdjanovic (*Miomira Đurđanović*) pētījumā par ģimenes lomu tradicionālās tautas mūzikas apgūšanā pirmsskolas vecumā 21. gadsimtā, apkopo Serbijas zinātnieku pētījumu atziņas un projekta ietvaros pēta ģimenes un skolas sadarbības modeļus tautas mūzikas apgūšanai bērniem.

Raksturojot ģimenes kultūrvides nozīmi tradicionālās tautas mūzikas apgūšanai, zinātnieces atsaucas uz Nadas Ivanovičas (*Nada Ivanović*) pētījumu un tajā akcentētajiem kritērijiem, kā bērns var apgūt mūzikas tradīciju, norādot, ka „ir daudz veidu kā bērnu var iepazīstināt ar ģimenes mūzikas tradīcijām: nodibinot sadarbību starp ģimeni un skolu un apmainoties ar mūzikas tradīciju pieredzi, tradicionālās mūzikas klausīšanās paraduma audzināšana ģimenē, tradicionālās mūzikas izmantošana reliģisko svētku laikā un ģimenes svētkos (Ziemassvētkos, Lieldienās, ģimenes godos utt.), mudinot bērnus apmeklēt izvēles mācību programmas un ārpusstundu pasākumus, kas godina tradicionālās vērtības, bērnu iesaistīšana izklaidējošās aktivitātēs (folkloras kopas, etnogrāfijas darbnīcas utt.), kuras popularizē tradicionālo mūziku, tradicionālās mūzikas koncertu un tamlīdzīgu pasākumu apmeklēšana, etnogrāfisko muzeju, bibliotēku (mantojuma nodaļu), etnociemu un citu institūciju, kuru mērķis ir saglabāt nacionālo kultūras mantojumu, apmeklēšana. Ģimenes galvenā loma ir tautas tradīcijas elementu veidošana, kas vēlāk tiks uzlaboti skolas dažādos mācību priekšmetos. Skolas un ģimenes sadarbība palīdz bērnu iepazīstināt ar mūzikas tradīcijām” (Calic & Djurdjanovic, 2020, 105).

Tautas muzicēšanas prasmju apgūšana ģimenē *Acquisition of Folk Music Skills in the Family*

Mūzika, muzicēšana ģimenē, mūzikas izglītība dažādos laikmetos ir bijis svarīgs cilvēka personību veidojošs faktors. Mūzika spēj apvienot dažādu paaudžu, nacionalitāšu, raksturu cilvēkus un tās funkcijas sabiedrībā ir gan estētiskas, gan sociālas. Pirmās sajūtas un iespaidus par mūziku bērns iegūst ģimenē caur šūpuļdziesmām, vēlāk caur ģimenē klausāmām, dziedamām dziesmām vai atskaņotās mūzikas gaumi, un tikai pēc tam bērns pats dzīves laikā (skolā, sabiedrībā, masu medijos utt.) izkopj savu mūzikas gaumi, izpratni par mūzikas nozīmi, vērtību, tās pielietojamību.

21. gadsimta kultūrvidē tiek lietoti divi nosaukumi personai, kas prot spēlēt mūzikas instrumentus: mūziķis un muzikants, ar to saprotot, ka mūziķis ir persona ar mūzikas izglītību, kas apgūta izglītības iestādē un muzikants (tautas muzikants) (Dukaļska, 2001-2021), kas instrumentu spēli apguvis pašmācības ceļā ģimenē, var teikt arī māj mācībā. Līdz ar to māj mācības process visbiežāk var tikt attiecināms uz tautas muzicēšanas tradīciju, jau 2007. gadā raksta autore ir uzsvērusi, ka „tautas muzicēšanas tradīcija nevar izzust tajā vidē, kur ir tās pirmavots, kas galvenokārt ir ģimene. Pēc veiktajiem pētījumiem var secināt, ka tautas muzicēšanas tradīcija ir saglabājusies apmēram trešajā un ceturtajā paaudzē un tai kādreiz bijusi svarīga nozīme kultūras norisēs” (Dukaļska, 2007, 28).

Tautas mūzikas instrumentu (cītaras, ermoņiku, mazo bundziņu, mutes ermoņiku u.c.) spēles pamatprasmes līdz 20. gadsimta 60. gadiem bērni apgūst ģimenē, galvenokārt no vecākās paaudzes muzikantiem. Vēlmi kļūt par muzikantu veicina vietējās kopienas augstais muzikanta kā personības vērtējums, kā arī paša bērna griba un neatlaidība apgūt kāda instrumenta spēles tehniku. Līdz pat 20. gadsimta 50. gadiem visbiežāk mūzikas instrumenti tika izgatavoti vietējā kopienā un tos izgatavot prata paši tautas muzikanti vai galdnieki. Tas nozīmē, ka bērns bija iesaistīts instrumenta tapšanas procesā un tas veicināja arī vēlmi iemācīties instrumenta spēli. Minētajā laika periodā lauku kultūrvidē tiek šķirtas divas mūzikas tradīcijas, uz ko var attiecināt māj mācības procesu: dziedāšana un muzicēšana. Dziedāšanu (gan sadzīves, gan reliģisko) un tās funkcionēšanu vietējā kopienā nodrošināja pārsvarā sievietes, bet muzicēšanu – vīrieši. Tas nozīmē, ka instrumentu spēles prasmi pārsvarā apguva zēni no vīriešu kārtas muzikantiem (tēva, vectēva, vecākā brāļa, krusttēva), taču arī meitenes ģimenē varēja iemācīties mūzikas instrumenta spēli, bet atbilstoši pieņemtajiem tradīcijas pārmantošanas noteikumiem, sievietes kā muzikantes ļoti reti piedalījās sabiedrības sociālajās norisēs: muzicēšanā zaļumballēs, ģimenes godos.

Mūzikas instrumenta spēli bērni sākuši apgūt apmēram 6–10 gadu vecumā. Muzikanta statusu vietējā kopienā jaunais muzikants varējis iegūt jau 16 gadu vecumā, kad bija vairākas reizes muzicējis kopienas rīkotajos atpūtas pasākumos (zaļumballē vai večerinkā Latgalē). Minētajā laika posmā muzicēšanas prasmes tika apgūtas bez nošu pieraksta, pamatojoties uz muzikālo un redzes atmiņu. Agrākais vecums instrumenta spēles apgūšanai ir bijis četri gadi, vēlākais bērna - pusaudža vecums – 14 gadi. Lauka pētījuma intervijās muzikanti, parasti, apraksta instrumenta spēles iemācīšanās tehniku, kas pirmkārt, balstās uz vērošanu, kā instrumentu lieto vecākās paaudzes muzikants (instrumenta novietošanas pozīcija, instrumenta tehnisko parametru ievērošana u.c.), otrkārt, iemācīšanās balstās uz atdarināšanu, mēģinot atkārtot redzēto, un treškārt – uz praktisko treniņu – muzicēšanas mēģināšanu. Pirmās iemaņas instrumenta lietošanā un pirmo mūzikas gabalu bērns spēja iemācīties divu nedēļu laikā. Mūzikas instrumenta vērtība bija augsta gan to izgatavojot, gan nopērkot no meistara, vai vēlākā laika posmā nopērkot mūzikas instrumentu veikalā, tāpēc ģimenē esošos instrumentus bērns mājniecībai pilntiesīgi drīkstēja izmantot tikai pēc pirmo apgūto instrumenta spēles prasmju demonstrēšanas ģimenes locekļiem. Līdz minētajam brīdim instrumenta spēle tika apgūta slepus ārpus dzīvojamās telpas – šķūnī, kūtī, pirtī (Dukaļska, 2001-2021).

Tautas muzicēšanas prasmju apgūšana interešu izglītībā *Acquisition of Folk Music Skills in Interest Education*

Uz jautājumu vai mūziku var apgūt ģimenē, 21. gadsimta sākumā noteikti tiks saņemtas divas atbildes: viena, ka noteikti var apgūt mūziku ģimenē, otra, kas būs populārāka atbilde, ka nevar apgūt mūziku ģimenē. Šim jautājumam nepieciešams konkrētāks formulējums – kādu mūziku. Ja runājam par tautas mūziku un muzicēšanu, tad noteikti to var apgūt ģimenē gan pašmācībā, gan mājniecībā, bet, ja runājam par klasisko mūzikas izglītību, tad noteikti izglītību būs nepieciešams iegūt izglītības iestādē.

Pēc Latvijas Nacionālā kultūras centra datiem uz 2020. gada 1. decembri Latvijā bija 161 mūzikas un mākslas skola, mūzikas skola vai mūzikas vidusskola (Profesionālās ievirzes un profesionālās vidējās mūzikas, mākslas un dejas izglītības iestāžu kontaktinformācija, 2020). Minētā izglītības virziena iestādes praktiski ir katrā novadā. Pētījuma autore izlases veidā, aptverot Latvijas četrus etniskos novadus (Vidzeme, Latgale, Kurzeme, Zemgale) un Rīga, izpētīja minēto izglītības iestāžu piedāvātās programmas. Piemēram, Pārdaugavas Mūzikas un mākslas skolā ir iespēja apmeklēt gan interešu izglītības nodarbības bērniem, gan mūžizglītības nodarbības pieaugušajiem. Piedāvājums mākslā: sagatavošanas klase vizuāli plastiskajā mākslā, mākslas studija pieaugušajiem, papīra liešanas studija bērniem, papīra liešana

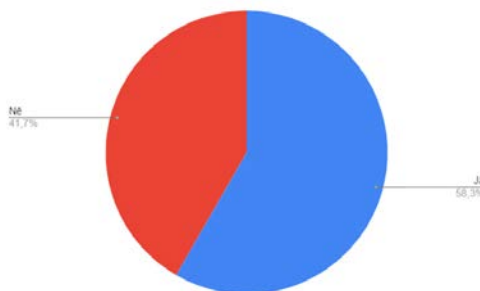
pieaugušajiem. Piedāvājums mūzikā: sagatavošanas klase mūzikas programmās, individuālas nodarbības instrumenta spēlē (vecums neierobežots) (Pārdaugavas Mūzikas un mākslas skola). Priekules Mūzikas un mākslas skola piedāvā apgūt taustiņinstrumentu, stīgu instrumentu, pūšaminstrumentu, sitaminstrumentu spēli un vokālo mūziku (Priekules mūzikas un mākslas skola). Analogas izglītības programmas piedāvā praktiski visas profesionālās ievirzes izglītības iestādes. Nevienā no minētajām izglītības iestādēm nevar apgūt tautas mūzikas instrumentu spēles prasmes. Tas nozīmē, ka tautas mūziku un muzicēšanu Latvijā var apgūt tikai ģimenē vai interešu izglītībā – folkloras kopās, vasaras nometnēs, radošajās darbnīcās u.c.

Raksta autore pieļauj, ka, ja 20. gadsimta beigās – 21. gadsimta sākumā bērns neapmeklēja mūzikas skolu, tad noteikti apmeklēja interešu izglītības nodarbības. Veicot anketēšanu, mērķis bija noskaidrot, vai mūzika mūsdienu ģimenēs ir svarīgs izglītības komponents un, vai to nosaka mūziķa vai tautas muzikanta esamība ģimenē.

Anketā ar nosaukumu „Mūzikas instrumentu spēle ģimenē” tika noformulēti 10 jautājumi, uz kuriem tika iesūtītas 48 atbildes. Anketēšanā aktīvāk piedalījās sievietes – 79,2%, respondentu vecums no 20 līdz 63 gadiem, pārsvarā anketēšanā piedalījušies valsts pārvaldes darbinieki, visvairāk – pedagogi un personas no Rīgas un lauku reģiona.

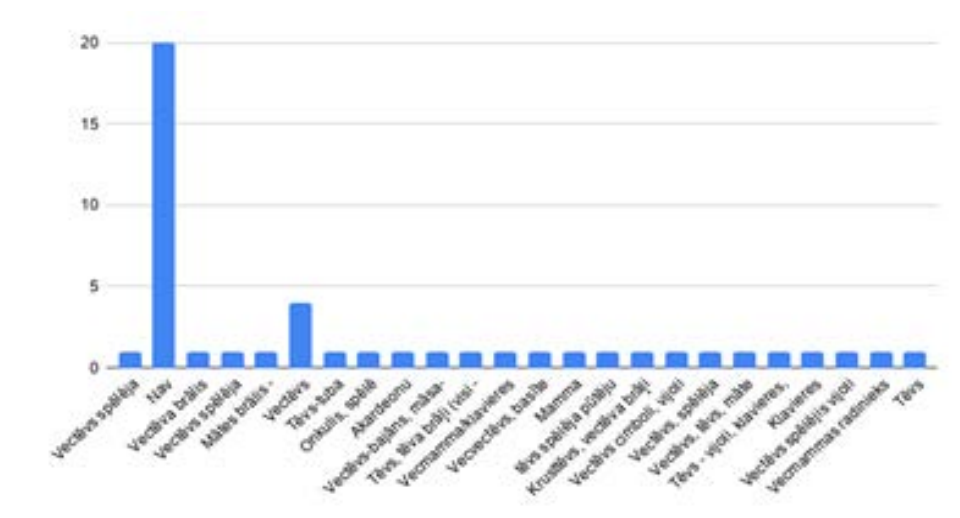
Uz jautājumu, vai respondents spēlē kādu no mūzikas instrumentiem, saņemtas sekojošas atbildes: 8,3% ir mūzikas izglītība, 16,7% mūzikas instrumenta spēli ir apguvuši pašmācības ceļā, tik pat daudzi nespēlē mūzikas instrumentu, 6,3% ir cita izglītība, bet sevi definē kā muzikantu. 45,8% no respondentu ģimenes locekļiem ir pabeigta bērnu mūzikas skola, 4,2% ir augstākā mūzikas izglītība, 2,1% mūziku ir mācījušies vispārizglītojošās skolas mūzikas novirziena klasē, interešu izglītība u.c.

Uz jautājumu, vai Jūsu ģimenē ir bijis mūziķis vai muzikants iepriekšējās paaudzēs (dzimtā) (skat. 1. attēls), 58,3% respondentu atbild apstiprinoši.



1. attēls. Muzikanta esamība ģimenē, dzimtā
Figure 1 Musician in a Family

Visbiežāk tiek norādīts, ka iepriekšējās paaudzēs muzikants ir bijis vecvectēvs, vectēvs, visi vectēva brāļi, tēvs, krusttēvs (skat. 2. attēls).



2. attēls. Kurš ģimenē ir bijis muzikants?
Figure 2 Who Has Been a Musician in the Family?

Visbiežāk dzimtā spēlētie mūzikas instrumenti ir bijuši: mandolīna, cītara, vijole, cimbole, akordeons. 66,7% ģimenēs no iepriekšējām paaudzēm mūzikas instrumenti nav mantoti, bet 4,2% ir mantots akordeons, 2,1% - vijole, ermoņikas un klavieres.

Pamatojoties uz anketēšanas datiem, nākas secināt, ka cilvēka muzikalitāte un vēlme apgūt mūziku nāk no ģimenes, visbiežāk muzikalitāte tiek nodota no paaudzes uz paaudzi. Mūzikas izglītības ģimenē pamats ir tautas mūzika un muzicēšana, kas līdz 20. gadsimta 60. gadiem tika apgūta mājniecībā, bet 20. gadsimta beigās – 21. gadsimta sākumā interešu izglītības iestādēs (Dukaļska, 2001- 2021).

Secinājumi Conclusions

Mūzikas apgūšana (īpaši tautas mūzikas instrumentu spēles pamatprasmju apgūšana) sakņojas ģimenes tradīcijā, kas tika pārmantota no paaudzes uz paaudzi. Līdz 20. gadsimta 60. gadiem bērni pārsvarā instrumentu spēles pamatprasmes apguva pašmācības ceļā no ģimenē vecākā muzikanta – vectēva, tēva, vecākā brāļa.

21. gadsimtā ģimenes muzicēšanas tradīcija daļēji ir transformējusies vai zudusi, jo ir pārtrūcis tiešais pārmantošanas process un līdz ar to muzicēšanas apgūšana pašmācībā. Veiktās anketēšanas rezultāti pierāda mūzikas apgūšanas nepieciešamību tajās ģimenēs, kur vairākās paaudzēs ir bijuši mūziķi vai tautas

muzikanti. Mūzikas izglītības process tiek nodrošināts profesionālās ievirzes izglītības iestādēs jeb mūzikas skolas, bet tautas muzicēšanas prasmes tiek apgūtas ārpus minētajām izglītības iestādēm, pārsvarā interešu izglītības nodarbībās.

Mūzikas apgūšana mājniecībā var tikt sekmīgi nodrošināta tad, kad tautas muzicēšana kā viens no mūzikas apgūšanas veidiem tiks iekļauta mūzikas izglītības iestāžu programmās vai arī vecāki spēs paši nodrošināt bērniem instrumentu spēles apgūšanu.

Summary

Learning music (and this is especially true regarding the basics of the folk instrument play) is based in the family tradition, that was inherited from generation to generation. Until 1960s children learned the basics of instrument play mostly from some elder member of the family – granddad, father, or just elder brother – who was a musician. In the 21st century the family music-making tradition is partially transformed or even lost, as the direct inheritance process has ceased to exist, and with it - the self-learning to play. The results gathered in the process of a survey (using questionnaires) show that a need to learn music within the family is felt in those ones where there in several generations have been either classical or folk musicians. Music education process now is maintained by institutions of professional education – music schools, while the skills of folk music-making are acquired outside the said institutions, mainly as part of non-formal education. Learning music at home can be successfully done when the folk music-making as one of music types will be included in the curricula of music education institutions or parents themselves will be able to provide their children with sufficient opportunities of learning a musical instrument.

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DEVELOPMENT OF EMOTIONAL INTELLIGENCE IN THE ASPECT OF PERSONALITY DEVELOPMENT IN THE CONTEXT OF A LEARNING ORGANIZATION

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Abstract. *Today's schools coexist with an environment that is constantly changing and shifting that is why modern schools should be open to new experiences, possibilities, become learning organizations. Also, educational institutions face the need for competencies in the formulation and implementation of competition policy, which in itself requires managerial knowledge based on an innovative approach. Moreover, the development of emotional intelligence integrated with the school curricula should be considered as one of the criteria for a school to become a learning school. Although some robust knowledge already exists about the positive impact of emotional intelligence development in educational settings. There is little to no research and theoretical data about the means to successfully integrate emotional intelligence development in schools as a context of learning organizations. Moreover, there is not any strong theoretical framework that links several ideas and theories on which they need for emotional intelligence development in learning schools could be based upon. Regarding this knowledge gap, this article aims to reveal the attitude of school staff about the development of emotional intelligence in the context of a school-learning organization. To achieve this goal, methods were used: scientific analysis of literature and documents and theoretical interpretations. Research results: peculiarities of emotional intelligence development in the context of personality development in the context of learning organization: how emotional intelligence is developed, its meaning and importance, possible perspectives, benefits for personality and organization-school in the context of learning organization (L. Vygotsky theoretical aspect). This justifies the need to organize personnel management and professional development processes in the development of emotional intelligence.*

Keywords: *school, emotional intelligence, learning organization, development.*

Introduction

Nowadays when a traditional instructive and convictive method-based teaching does not always prove to be effective and efficient in various and constantly changing dynamic situations a new approach in regards to teaching

throughout the organizational culture requires development (Lau, Lee, & Chung, 2018). Today's schools and other educational organizations coexist with an environment that is constantly changing, shifting, and evolving (Kvedaraite, 2009). This change led to a natural need for new competencies, resources, and teaching strategies (Kudokiene & Juodaityte, 2005). In regards to these statements, modern schools should be able to meet modern educational requirements by becoming a learning organization and constantly apply various teaching strategies and methods. In our view, the development of emotional intelligence in modern schools, as learning organizations, should be integrated.

Emotional intelligence is a relatively new construct, but nowadays it is well known that people constantly experience a wide variety of emotions in their daily lives and that these emotions are one of the main factors that influence one's behavior, decision making, thinking patterns, has a positive impact in various fields including education, etc (Dunn, 2016; Rafaila, 2015). Scholars with higher emotional intelligence tend to be more active and effective learners, have better relationships with peers and teachers, are less likely prone to antisocial behavior, perform better academically, etc. It is worth mentioning that emotional intelligence can be effectively developed through various social interactions, thus making modern schools the ideal setting for its development. In other words, the development of emotional intelligence in schools should benefit them as learning organizations. Furthermore, emotional intelligence development is in a tie with the development of cognitive abilities which were thought to be the main priorities of schools.

Considering the newly found significance of emotions in an educational setting we imply that the development of emotional intelligence should be integrated into learning schools as a new teaching method or strategy. We found little to no research or theoretical data about how to (and based on what) effectively use and integrate this new teaching method or strategy. We aim to set a theoretical framework as a base for effective integration of the development of emotional intelligence as a new teaching method or strategy in a learning school context.

That is why *the main goal of this article* is to reveal the attitude of school staff about the development of emotional intelligence in the context of a school-learning organization. To achieve this goal several research methods were used: scientific analysis of literature and documents, theoretical interpretations. By establishing the links and ties between the aspects of a learning organization (Palujanskiene & Svagzdiene, 2020; Senge, 1990; Valuckiene, Balciunas, Katiliutė, Simonaitiene & Stanikuniene, 2015), trait emotional intelligence structure and functions, (Petrides & Furnham, 2001) and Vygotsky's (1982) main ideas of his cognitive development theory we believe new ideas about the

effective integration and development of emotional intelligence in learning schools as learning organizations can be ascertained.

The work is based on the methods of integrated scientific literature analysis, general and logical analysis, analogy, complex generalization, and comparison.

The Context of Schools as Learning Organizations

There are several different characteristics of the content of learning organizations (Hester van Breda-Verduijn & Heijboer, 2016; Örtenblad, 2018; Svagzdiene, 2010). One of the most profound contents of learning organizations is presented by P. Senge (1990), who is considered the pioneer of establishing learning organizations as a context. According to P. Senge (1990), the wholesome quality is determined not on the separate function effectiveness of learning organizations, but the compatibility and relativeness between those functions. These statements suggest that for schools to be considered learning organizations several functions that include the effectiveness of teaching and learning, various organizational areas of action should be interconnected and greatly compatible.

The analysis of scientific literature has revealed that it is crucial to determine separate attributes that should coexist to define the organization as a learning organization in different fields (Senge, 1990; Valuckiene et al., 2015). Schools however and their educational settings in a context of a learning organization should harmonize attributes both of the organizational structure action areas and the long-term learning cycle (Figure 1).

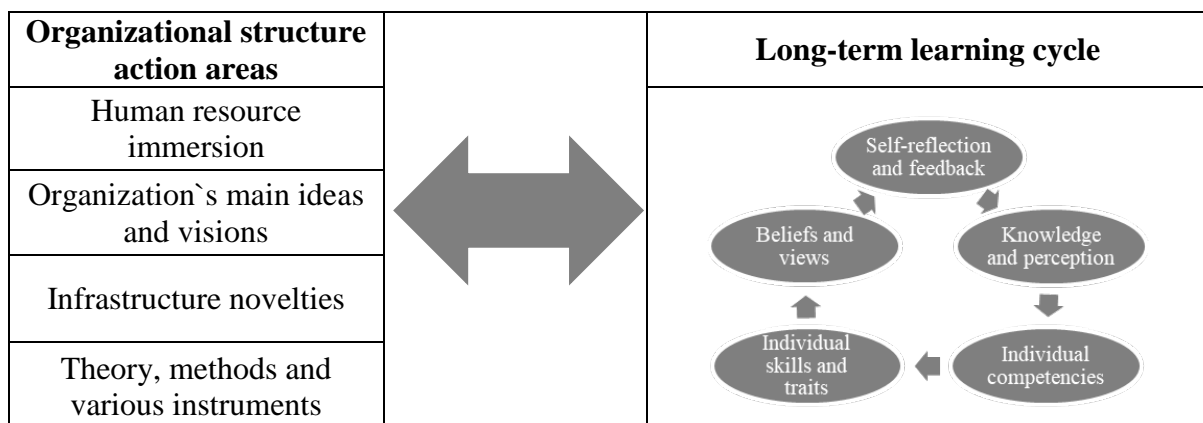


Figure 1 Systemical Representation of a Learning School Attributes (adapted by authors from Palujanskiene & Svagzdiene, 2020; Senge, 1990; Valuckiene et al., 2015)

The connection presented in Figure 1 implicates how newly acquired experiences benefit one's individual and professional competencies. The possible result of this connection is not only the improvement of solitary skills but also the positive impact for the relationship between the individual and the organization, both way learning motivation, perception about the importance of working together, etc. This type of connection should greatly benefit students, empower them to learn, use various possibilities in/with the school and help the school itself to learn and constantly improve.

According to P. Juceviciene, a true learning organization is developed over a long time (Juceviciene, 2007). That is why long-term goals of potentially learning organizations become more like learning strategies and not singular goals or ideas. These strategies do not develop on their own. They are generated by the staff and the community of the organization, which means it is very important to focus not only on the infrastructure novelties but also on the search for new action, teaching-learning methods, human resources, and their use possibilities (Valuckiene et al., 2015).

In conclusion, we can state that learning organizations and their content can be perceived and is constructed differently by different authors. One of the most profound structures or attributes of learning organizations is presented by P. Senge (1990). This structure in correlation with a long-term learning cycle could be implied for schools to become learning organizations or learning schools. The analysis of scientific literature has revealed that for a school to become a learning school the most important aspect is not to improve solitary individual and organizational attributes, but to ensure the most significant and effective correlation, harmony between those attributes. A learning school then implies various learning methods, strategies that are beneficial to students in various ways. Such schools should be able to integrate the development of emotional intelligence for students. Such development may lead to a positive impact on student academic results, relationship quality, life quality in general and even prove useful for the schools as a learning organization's attributes. That is why it is important to identify the theoretical framework for the successful integration of such development.

Emotional Intelligence as a Learning School Indicator

During the past two millennia emotions were thought to be of insignificant importance, "irrelevant" for proper decision making, and that the intelligence quotient is the main factor determining cognitive abilities (Dhani & Sharma, 2016). Nowadays it is well known that people constantly experience a wide variety of emotions in their daily lives and that these emotions are one of the main factors that influence one's behavior, decision making, thinking patterns,

has a positive impact in various fields, including educational (Dunn, 2016; Rafaila, 2015).

As emotions gained more significant importance throughout the previous few decades the concept of emotional intelligence has caught the attention of various field researchers and academics. Nowadays four main theories submit a different definition of emotional intelligence and its structure (Bar-On, 1997; Goleman, 1995; Petrides & Furnham, 2001; Salovey & Mayer, 1990). In scientific literature, a decent number of differences between these theories are singled out, but in a broad sense, emotional intelligence can be defined as the ability to perceive emotional powers and to effectively dispose of them in everyday life.

A scientific literature analysis has revealed that this concept and its development has positive feedback for people in clinical, health, social and interpersonal, educational and vocational, organizational, and childhood fields (Petrides, Mikolajczak, Mavroveli, Sanchez-Ruiz, Furnham & Pérez-González, 2016). In regards to the scope of the goal of this article, data about trait emotional intelligence and its development in organizational, educational, and vocational fields have been collected. We believe that the analysis trait emotional intelligence is most suited to reach the goal of this research. Trait emotional intelligence has a solid theoretical and empirical framework, which implies, that emotional intelligence is directly linked to personality traits (Petrides & Furnham, 2001) and is defined as a constellation of emotional self-perceptions located at the lower levels of personality hierarchies and integrates the affective aspects of personality (Petrides, Pita, & Kokkinaki, 2007). Trait emotional intelligence has various benefits not only for scholars as individuals but also for schools as learning organizations.

Studies have shown that trait emotional intelligence positively correlates with academic performance and behavior. In an educational or learning school context scholars with higher emotional intelligence are less likely to engage in maladaptive behavior patterns, drop out of school, and are more positively rated by their peers, teachers (Mavroveli, Petrides, Sangareau, & Furnham, 2009). Furthermore, scholars with higher emotional intelligence can perform mildly better academically (Perera & DiGiacomo, 2013; Siegling, Vesely, Petrides & Saklofske, 2015). These statements suggest that scholars with higher emotional intelligence can be beneficial not only on the intrapersonal level but also on an organizational level. Such students should be more likely to engage in various new learning methods, be resourceful in achieving organizational learning strategies. Schools should consider these benefits and learn how to successfully integrate and carry out the development of emotional intelligence in constellation with the attributes of learning schools which were mentioned earlier.

There are several studies conducted to determine whether or not trait emotional can be developed. Most of these studies suggest that trait emotional can be developed with long-lasting results for scholars in educational settings by various SEL programs, physical, social activities, etc. (Kaliska, 2019; Li & Xu, 2019). Similar beneficial results can be achieved by trait emotional training in organizational settings. Such training empowers the staff to more effectively use their emotional powers in regards to their job requirements (Petrides, et. al., 2016). Teachers with higher emotional intelligence are potentially more effective in succeeding not only with their daily job tasks but in helping to develop trait emotional intelligence for their students.

In conclusion, we can state that emotional intelligence is a relatively new construct, but already gained major importance in various fields these past few decades. Emotional intelligence nowadays can be described and perceived differently, but in a broad sense, it can be defined as the ability to perceive and use one`s emotional powers. The development of trait emotional intelligence has been proven to be significant in various fields. In an educational field, the development of trait emotional intelligence is beneficial not only for scholars but for schools as learning organizations also. Since scholars with a higher emotional intelligence proven to be more academically and socially efficient. As in an organizational field, the importance of the development of trait emotional intelligence is vice-versa significant. This means that by developing teacher trait emotional intelligence not only they will be more efficient in carrying out the learning schools learning strategies, they will also have better abilities and perceptions on how to develop their student`s trait emotional intelligence. Although there are several emotional intelligence training programs both in educational and organizational fields for them to succeed a wide variety of social interactions is required. In our view to successfully integrate and carry out the development of trait emotional intelligence in learning schools a robust understanding of social interactions and socialization is required.

Connections between the Social Development of Emotional Intelligence in a Context of a Learning School

As we mentioned earlier, we believe, that for a school to successfully become a learning school it should be able to constantly apply new teaching methods or strategies. We defined the development of emotions as one of such strategies hence its significance in educational and organizational fields. To successfully integrate and carry out such development a solid theoretical framework is in need. This framework should include the attributes of learning organizations (schools), the functions of trait emotional intelligence and its development possibilities through social interactions, and the main ideas of

L. Vygotsky`s sociocultural theory since we find this theory closely related to the previous two criteria.

L. Vygotsky (Vygotsky, 1982) widely researched personality development and perception aspects which in most cases represented the importance of social and cultural environment, pedagogical help, mediation, mentorship for child development (Kereviciene, 2014; Pea & Cole, 2019).

L. Vygotsky (1982) also proposed to research the social environment as the basis of personality development and developed these major ideas: 1) cognitive development is determined by social interactions and experiences; 2) children need constructive landmarks to learn and improve; 3) the rate of cognitive development depends on culture and time aspects; 4) children can learn independent of time if the ZPD is significant. This means that children while socially interact with adults are copying them by example, thus opening themselves for a deeper self-perception, learning and psychological development (Kereviciene, 2014). According to these statements and ideas, some robust theoretical links between learning schools, emotional intelligence development, and L. Vygotsky`s sociocultural theory ideas can be defined (Table 1).

Table 1 Theoretical Links between Learning Schools, L. Vygotsky`s Sociocultural Theory Ideas, Trait Emotional Intelligence (adapted by authors from from Dunn, 2016; Kaliska, 2019; Kerevičienė, 2014; Li & Xu, 2019; Palujanskiene & Svagzdiene, 2020; Pea & Cole, 2019; Petrides et. al., 2016; Senge, 1990; Rafaila, 2015; Valuckienė et. al. 2015; Vygotsky, 1982)

Learning school attributes	L. Vygotsky`s sociocultural ideas	Trait emotional intelligence functions
Human resource immersion	Teachers and staff in learning schools should be provided with abilities to acquire skills and instruments to effectively socially interact with scholars	More effective social interactions may teach scholars emotional self-awareness, help them to adapt, build self-esteem and motivation
Organization`s main ideas and visions	Learning schools should include personal development methods and strategies	Personal development strategies are ideal for trait emotional intelligence development hence it correlates with personality traits
Infrastructure novelties	Learning schools should include infrastructure novelties for personal scholar development	Infrastructure novelties such as focus rooms, board games, smart devices provide the possibilities for scholars to use emotional intelligence development programs, apps and games

Theory, methods and various instruments	Learning organizations should construct and coordinate their visions based on scientific social theories	Organization`s actions based on social theories empower the staff and scholars for personal, interpersonal emotional development through socialization
Self-reflection and feedback	Learning schools should focus not only on academic performance feedback and self-reflection, but on social also	Social feedback is important for scholars to understand their own, other people emotional perspective after various social situations
Knowledge and perception	Learning schools should understand that cognitive perception and knowledge is dependent on social factors as well	Knowledge and perception about emotions acquired during social interactions may lead to a better regulation of them in the future, influencing cognitive performance
Individual competencies	Learnings schools should not only focus on competencies that are most significant for academic achievement, but for social competencies also	Highly developed social skills and competencies may lead to more complex interactions. Complex social interactions may provide more opportunities learn how to control one`s emotional potential
Individual skills and traits	Learning schools should provide the possibilities to improve cognitive, psychological, social skills in cohesion	Individual skills and traits improved through holistic teaching may help create peer relations, low impulsivity, etc
Beliefs and views	Learning schools should include holistic, brave and long-term views	Long-term, holistic views regarding education may include emotional intelligence training aspects both for scholars and staff

In Table 1 we mentioned only a few possible outcomes of successful integration of trait emotional intelligence development plan. We presented a chain of links between separate attributes of learning schools, sociocultural theory ideas, emotional intelligence functions, and how these links could coexist with traditional education goals, enriching schools and providing them the means to become learning schools in a field of trait emotional intelligence development.

Discussion

In our beliefs and views, most schools that operate nowadays only partly can be considered as learning organizations and there are several reasons for that. In our analysis, we mentioned that schools have some attributes to cover to be theoretically considered learning schools or a learning organization. In an educational context, these attributes cover both organizational and educational

aspects. The majority of modern schools operate solely on academic achievements hence GPA, exam results, dropout rates, etc. are considered the ultimate factors determining the quality of the school. It is because of these factors a huge number of modern schools still focus on academic achievement. Schools base their vision, ideas, and actions to become more academically efficient thus neglecting social and emotional development factors. This may be due to insufficient knowledge about the co-benefits between academic achievements and other personal skills and traits. This lack of knowledge may be one of the reasons why a huge number of modern schools are yet to reach the status of a learning organization.

We are not surprised that the integration of emotional intelligence development in modern schools nowadays is considered highly important. It is a relatively new context and schools are often not ready for such integration to take place since older processes and beliefs are still present. Of course, there has been a notice that in recent years SEL programs, social, emotional competencies gained significant attention and importance for overall scholar development including academic achievements, yet we failed to find any theoretical framework about the effective integration of emotional intelligence development in schools. Most of the current research data and scientific literature describes the possible results and impact of various aspects of emotional intelligence development programs for scholars. Considering that emotional intelligence is becoming more and more relevant it is natural that more and more emotional development programs are being developed. Considering the wide variety of these programs we raised a question how do schools choose which program will be effective or the most effective hence they fail to meet the most criteria for learning schools and focus solely on academic achievements? As expected, there was no concrete answer and we fail that this integration is yet to be successful as it could be. There is little to no discussion that an emotional intelligence development program will be beneficial in some way, but without robust knowledge about how to harmonize learning school's attributes with its vision, actions, emotional intelligence development methods these benefits can't be considered significant.

The theoretical framework that we presented in this article covers attributes of learning schools, social requirements for successful integration of trait emotional intelligence development. Please note, that this framework is subjective to our knowledge and perception about the areas we covered. Several other links and ties can be presented and generated, but we chose those, which we believe are most relevant for our goal. Based on our scientific literature analysis we were able to generate these main recommendations for schools to become learning organizations while successfully integrating the development

of trait emotional intelligence:

1. It is recommended for schools to develop long-term visions and action plans that focus on holistic scholar development. Nowadays it is well known that cognitive abilities are not solely responsible for academic achievements and that emotional intelligence is significantly beneficial.
2. It is recommended for schools while generating new visions and action plans target most possible of the learning school`s criteria to achieve. During the learning process, other criteria might well be met along the process.
3. These visions and action plans should be based on and cover clear, single theories and/or models. There are several different social development theories, emotional intelligence theories, and models. It is recommended for schools to choose these theories or models which are most relevant to their visions and action plans. Mixing theories and models will lead to partial, less significant results.
4. It is recommended for schools to create a wide variety of possibilities for their staff to develop personally, not professionally. More personally developed staff should be more competent during various social interactions and acquire some skills for a more effective scholar emotional intelligence development.
5. Constantly apply new teaching methods and strategies considering emotional intelligence and generate as much feedback and results as possible. According to these results, emotional intelligence development programs can be changed, modified. The same can be done with the learning school`s visions, action plans, etc.

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Valuckiene, J., Balciunas, S., Katiliute, E., Simonaitiene, B., & Stanikuniene, B. (2015). *Lyderyste mokymuisi: teorija ir praktika mokyklos kaitai*. Monografija. Siauliai: Siauliu universitetas.

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KNOWLEDGE, ATTITUDES AND COVID-19-RELATED BEHAVIOR AMONG INDIVIDUALS AGED 50 AND OLDER IN LATVIA

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Abstract. *The coronavirus disease 2019 (COVID-19) was declared a pandemic by the WHO on March 11, 2020, due to its high infection rate, which caused thousands of deaths worldwide and expanding. The evolving outbreak of COVID-19 requires health-protective behavior that can alleviate the severity of an epidemic. Therefore, recognizing the underlying drivers of health-protective behavior against COVID-19 is urgently needed to form policy responses. The purpose of this study was to investigate the individual-level underlying drivers affecting the formation of knowledge, attitudes, and COVID-19-related health-protective behavior among individuals aged 50 and older who are more vulnerable to complications of infection because of their age. The factors making individuals more vulnerable are also associated with the ability to access and understand information, make well-informed decisions, and take health-protective and promoting actions, especially when information itself is not timely, trusted, consistent, or actionable. The researchers used data from a representative population sample consisting of 50-80-year-old individuals, obtained from in-depth, semi-structured telephone interviews during July – August 2020, between the first and second waves of COVID-19. For conducting qualitative data analyses, the Grounded Theory (GT) approach for developing code structure was used.*

Keywords: *Attitudes, COVID-19, Grounded Theory Approach, health literacy, health-protective behavior, knowledge.*

Introduction

COVID-19 was announced by the World Health Organization as a global pandemic on March 11, 2020. On March 12, 2020, an emergency situation was declared in Latvia, and related restrictions to reduce the prevalence of infection were introduced.

The evolving outbreak of COVID-19 requires health-protective behavior that can help to alleviate the severity of an epidemic. Therefore, recognizing the underlying drivers of health-protective behavior against COVID-19 on individual level is urgently needed to form policy responses in the future.

The existing literature indicates that the knowledge and attitudes of the people toward COVID-19 are critical for promoting effective infection restrictive measures adopted in a country. It is noted that knowledge is the most significant driver for attitude formation that results in health-protective behavior. However, health-protective behavior itself is strongly shaped by socioeconomic status gradients. Socioeconomic status (SES) usually is assessed by determining education, income, and occupation, and/or a combination of these determinants. In health studies, the interrelation between these SES measures was the most substantial and most consistent for health-protective behavior. However, SES determinants as single measures are not always sufficient (Bish & Michie, 2010; Pampel, Krueger & Denney, 2010; Dupas, 2011; Chavarría et al., 2020).

The purpose of this study was to investigate the individual-level underlying drivers affecting the formation of knowledge, attitudes, and COVID-19-related health-protective behavior among individuals aged 50 and older who are more vulnerable to complications of infection because of their age.

The researchers used data from a representative population sample consisting of 50-80-year-old individuals, obtained from in-depth telephone interviews during July – August 2020 between the first and second waves of COVID-19.

For conducting and evaluating analyses of qualitative data applicable for the aim of this research, the Grounded Theory Approach was used.

Literature Review

The existing literature indicates that knowledge and attitude significantly correlated with risk perception regarding infectious diseases and health-protective behavior. Both the prevention and control of spread of infectious diseases can be positively affected by health-protective behavior of the general population as well as of people in risk groups. (Brewer et al., 2007; Zwart et al., 2009; Savadori & Lauriola, 2021).

Epidemics are usually followed by fear. Health-protective behavior toward infectious diseases is often associated with substantial fear and anxiety in the general population or specific communities, especially when morbidity and mortality rates are relatively high. The pressure caused by physical distancing resulting in lack of contact with family or friends, in fear of going out, the compulsive need to hoard food and essentials or medical supplies, and stigma toward people with symptoms of coronavirus infection are the possible experiences of people during a pandemic (Tognotti, 2013; Riva, Benedetti & Cesana, 2014; Savadori et al., 2021).

However, the use of fear-creating tactics in public health messages about pandemics to promote the formation of health-protective behavior among the population is widely discussed. This interrelation could be summarized into two opposite by nature perspectives: 1) fear among the people could further complicate the measures taken to prevent the spread of the disease; 2) threatening health messages about infectious diseases producing fear among the population could be effective to prevent the spread of the disease. It is noted that social media have high power to produce misinformation in emergency communication during times of crisis to manage public outreach. This can confuse individuals and they may become more doubtful with regard to any type of information they access. Fear makes individuals more vulnerable and is also associated with reduced ability to access and understand information, make well-informed decisions and choices for the construction of health-protective behavior, as well as to take health-promoting actions (Person et al., 2004; Simpson, 2017; Fairchild et al., 2018; Ornell, Schuch, Sordi & Kessler, 2020; Zarocostas, 2020). This is a set of skills commonly called health literacy.

Health literacy concerns the knowledge, skills, and attitudes of persons to obtain, process, understand information, make well-informed choices and decisions to develop health-protective behavior. Although the importance of health literacy in the population is increasingly recognized, there is no consensus on the definition of this term and its conceptual dimensions. Therefore, the possibilities of measurements and comparisons are limited. Since the emergence of the COVID-19 pandemic and related public health dilemmas, like health-protective behavior, the issue of health literacy was little discussed. Health literacy was reported to be underestimated in the COVID-19 crisis. Health literacy among the population - knowledge, skills, and attitudes - is essential for the prevention of the disease, as well as dealing with situations requiring a rapid reaction (Sorensen et al., 2012; Sorensen et al., 2015; Abdel-Latif, 2020; Abel & McQueen, 2020; Paakkari & Okan, 2020). Older people are a group which most likely possess lower health literacy than population in general and at some point

they need help in navigating, understanding, or acting according to sometimes quite complex and contradictory information.

Methodology

To gain a more detailed and profound understanding of the topic of this study, the in-depth semi-structured interview was developed with the aim to understand true meanings that individuals assign to the complexity of their attitudes, behaviors, and experiences.

The in-depth semi-structured interview consisted of 6 sections: 1) personal experience with Covid-19; 2) use of health and social care services; 3) emotional well-being during the pandemic; 4) use of information and communications technology tools during the pandemic; 5) assessment of government action and attitudes towards repatriation issues during the pandemic; 6) notion about COVID-19. The sociodemographic variables included age, gender, level of education, residential location, and occupation.

In the context of the raised research question, qualitative data from the questions included in the thematic blocks 4 and 6 were analyzed.

There were five (5) items in Section 4: questions about whether and how the habits of using information and communication tools and channels changed during the pandemic and questions about the sources of information related to COVID-19.

There were eight (8) items in Section 6: questions concerning respondents knowledge and attitudes towards COVID-19 (sources of infection, fear of disease, population groups at risk of infection, danger and origin of the virus, effectiveness and barriers to the introduced restrictive measures, attitudes towards information provided by the government and public authorities concerning COVID-19), the losses and benefits of the pandemic, the effectiveness of reducing the spread of the virus by using masks and observing physical distancing, the reliability of the information, and sources of information they rely on.

The Grounded Theory approach was used in the data analysis offering a systematic process of qualitative data coding. In this approach, coding of one data element (statement), continuous comparison, and opposition to all other (similar or different) elements (statements) was done to develop a theoretical substantiation for a possible relationship between different data elements. To emphasize an integrated view of the data and their specific contexts, the researchers used both Grounded Theory approach of data analysis, inductive and deductive, by employing predetermined codes to guide data analysis and

interpretation. In the initial stage of coding, the researchers conceptualized fragments (statements) of the data obtained in the interviews, from which the categories describing the research topics were distinguished, and the theoretical links between the categories were determined (Charmaz, 2006; Corbin & Strauss, 2011; Chamberlain-Salaun, Mills & Usher, 2013).

Age diversity, gender diversity, geographical diversity was observed when selecting the respondents.

Sixteen (16) respondents participated in the interview, 10 of them with higher education. Among respondents, there were both men and women from various cities of Latvia, including small-town residents and rural residents. Respondents represented 50-80-year-old individuals.

The respondents were fully informed about the purpose, methods, and possible uses of the research, as well as what their participation involves. Involvement of the research participants was voluntary. All the research participants were given information explaining the purpose of the research, the process of record-keeping, and how the data will be used. For the interviewees, precise information on the purpose of the study was repeated verbally at the time of the interview. Consent was recorded.

Research Results

Information and communications technologies are used on a daily basis by all respondents, regardless of their age, education, employment status, and place of residence (urban or rural), both for communication and obtaining information. Smart devices are not used by respondents due to visual impairments and technological limitations (e.g., they do not have a smartphone).

A large proportion of the respondents consider that the highest risk of becoming infected with Covid-19 is associated with people coming from abroad. Examples of their statements:

- *“...well, just from what I’ve heard on TV that when contacting with people who have been abroad recently...”*;

- *“...if we so look at the news now, then all these patients, they have infected just when the virus is brought from somewhere. This is exactly that people come in, especially on planes, that there are people from all over the world, sitting in a plane, then someone gets infected, they will infect each other...”*.

Respondents believe that there is also a high risk of infection in public places and from strangers. However, none of the respondents indicate possible infection from people they know or from their family members. Examples of their statements:

- "...indoors, at an event, and where you don't know where all the people are from...";

- "...less risk at private events...At a normal party, we all know where we all come from...".

Several respondents pointed out that the mass media purposefully cultivates fear among the population, which can lead to stress amplification and thus has a negative effect on immunity and increases the risk of infection. In their view, the information provided by the media and government officials is disproportionate to the seriousness of the situation and tends to intimidate people. Examples of their statements:

- "...the highest risk, I think, is by watching our media. This is the greatest risk of infection...And, by the way, what is done with us today is intimidation with this disease. And the more scared a person is, the more is the possibility of the disease, much greater...";

- "...it is not normal, a person must be afraid all the time...a person gets sick just because he has to be afraid of his ailments all the time...".

When comparing and opposing the data obtained during the interviews on whether the respondents are afraid of getting sick with COVID-19, it was found that those respondents who believe that the media purposefully intimidate people are not scared of getting sick. Examples of their statements:

- "...I don't think I should be so afraid of it all, because if I start to get scared, then maybe it will infect me. It is usually said that if you are not afraid, then it doesn't infect, that the disease is afraid of those who are not afraid...";

- "...I have no fear at all...The risk of getting sick, if you think about the illness, you will definitely get sick...".

In addition, those who believe that the media purposefully intimidate people think that... (examples of their statements):

- "...with the test, the virus can be put inside you to get sick. Also, with the help of 5G radiation, at which point to turn on and isolate you...";

- "...if a vaccine is administered to you, then virus runs inside you...".

Respondents who do not identify themselves in the risk group are not afraid to get sick. Examples of their statements:

- "...higher risk of illness...for riders around the world, travelers...";

- "...for doctors, salespersons and cleaners, all service personnel...";

- "...seems to be dangerous for the elderly...";

- "...for those who have some problems, some already chronic ailments, well, they are at risk...";

- "...those who toss around, well, who wander everywhere, who pile up, so to speak...Well, retirees, though, don't organize any parties...".

Also, respondents who believe that COVID-19 is not dangerous are not afraid of getting sick. Examples of their statements:

- *“...no, I don't, ...this covid, though, does not correspond to any pandemic or epidemic...there is some kind of flu... covid analyses have been collected from me five times...and it is not, it is not, it is not here. It is not coming...”*.

Significantly, those who identify themselves at risk and who are at higher risk of developing the disease, are not afraid of falling ill. Examples of their statements:

- *“...I had no fear and neither do I now, because, as I said, I am 77, I have lived a good life, I have two good daughters and four grandchildren and, after all, why should I be afraid, if it is destined, then it will be destined, if not, then no...”*;

- *“...at my age, there is nothing to be afraid of. It is already lived...”*.

Respondents point out that the physical distancing could reduce the spread of the disease. At the same time, most respondents acknowledging the usefulness of the physical distancing in limiting the spread of the infection consider the use of masks to be ineffective.

Respondents also point to various problems creating obstacles to the observance and implementation of the physical distancing: 1) irresponsibility and selfishness of people; 2) practical issues, such as little space in public transport to maintain the necessary distance from each other. Examples of their statements:

- *“...either himself or someone else does not observe distancing...”*;

- *“...people, however, should not laugh nor about two meters, nor hand disinfectants, neither hand washing, but they should do it...”*;

- *“...during any virus, one should not sneak, as our people are used to do, even standing in line at the cash register to step on other's back, should not, you should observe everything, we have enough space in supermarkets, we have to observe that distance...”*.

Most respondents express distrust in their statements regarding the information provided by the government and public authorities on the disease and its prevalence. Examples of their statements:

- *“...there is a feeling that no one really knows. Trust in all of them is being lost...Our government, in general, is seemingly repeating what is being said, for example, there in some America or Europe, in Brussels...”*;

- *“...very minimal credibility...one moment someone says something you might believe, the next moment he maybe says already something else...”*;

- *“...yes, I believe somewhere a little bit, well, but I'm letting pass a lot, and I'm sad in the sense that I can't believe them...”*;

- "...I do not trust anyone 100%, because they definitely present information, as they, let's say, think, purely subjective, express the objective part subjectively. Maybe default something, distort something, well, but the question is for what purpose they are doing it..."

Discussion

Analysis of the qualitative data, obtained from in-depth, semi-structured telephone interviews with 50-80-years-old individuals during July – August 2020 between the first and second waves of COVID-19, showed that at individual-level underlining drivers affecting the formation of knowledge, attitudes against COVID-19, and health-protective behavior could be categorized into three main groups: 1) health-literacy; 2) life-experience; 3) self-perception.

At the individual level, health-protective behavior does not directly depend on socioeconomic status gradients - education, income, and occupation (Bish & Michie, 2010; Pampel et al., 2010; Dupas, 2011; Chavarría et al., 2020). Low health literacy among the population may cause obstacles in understanding or acting according to important and sometimes quite complex and contradictory information, as well as observing the precautionary procedures and national measures.

Health-protective behavior resulting in positive outcomes during a crisis depends directly on everyone's health-literacy level and can have an important role in both the prevention and control of spread of infectious diseases. The existing literature indicates that knowledge and attitude significantly correlated with the risk perception regarding infectious diseases and health-protective behavior (Brewer et al., 2007; Zwart et al., 2009; Savadori & Lauriola, 2021).

Social media have high power to produce misinformation in emergency communication during times of crisis to manage public outreach. Health-literacy increases the ability to access and understand information, make well-informed decisions, and take health-protective and promoting actions, especially when information itself is not timely, trusted, consistent, or actionable (Person et al., 2004; Simpson, 2017; Fairchild et al., 2018; Ornell et al., 2020; Zarocostas, 2020). Health literacy among the population - knowledge, skills, and attitudes - is essential for the prevention of the disease, as well as responding to the disease in situations where a rapid reaction is needed.

Conclusions

The development of health-literacy should become essential in order to ensure individuals and societies preparedness for emergency (and not only for emergency) situations, such as the COVID-19 pandemic. Nations' investment in the health literacy of its citizens could help to reduce the spread of the infection and understand the basis behind the social responsibility and disease prevention. The outcome of this study highlighted a growing need to develop and implement innovative local strategies and educational interventions to improve health literacy and awareness among the older population related to COVID-19 and its preventive practices in order to meet its elimination goals.

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LINKING TEACHER PROFESSIONAL DEVELOPMENT NEEDS WITH APPROPRIATE SOLUTIONS: INSIGHTS FROM AN INIATIVE IN LATVIA

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Abstract. *International surveys have stated that each year teachers spend, on average, more than 10 days engaged in different professional development activities. The purpose for this investment in teacher professional development (TPD) is clear: teachers' competence must develop according to changes in curriculum and 21st century requirements.*

In previous research we have developed a theoretical teacher competence framework, implemented it to identify teacher (N=263) groups competence gaps and professional development needs. The goal of this research is to link identified professional development needs related to the instruction of 21st century skills (criteria - instructional design, learning goals and feedback to students) with TPD solutions.

This paper describes the development of a TPD model, based on evidence about teacher groups professional development needs, and its implementation in a school (N= 25 teachers). A TPD program, developed according to the model, combined face-to-face and online input workshops with collaboration in small groups to develop lesson plans. The topics of input workshops, (effective lesson design, lesson goals, effective feedback and reading comprehension) were chosen according to gaps, previously identified. To learn about appropriateness of the TPD model, the developed lesson plans, participant questionnaires and researcher field notes were analysed.

Keywords: *evidence-based professional development solutions, teacher collaborative professional learning, teacher professional development needs.*

Introduction

Latvia like other countries is undergoing a curriculum reform (Nieveen, 2018) that has a focus on 21st century skills, complex use of knowledge, skills,

attitudes and values. Thus, it becomes increasingly important to monitor if and how teachers plan and ensure the classroom learning and whether it aligns with the goals of the reform. This then provides information for planning and delivering the necessary professional development (PD) support.

School administration plays a key role in this process, however there is a lack of good practice how to make evidence-based decisions to link teacher PD needs with appropriate PD interventions that bring changes in classroom practice (Sims & Fletcher–Wood, 2020).

In previous studies our research group has developed and validated a framework of teacher performance assessment (Bertule, Dudareva, & Namsone, 2019), teacher knowledge tests and questionnaires to identify teacher competence gaps (Dudareva, Namsone, Butkēviča, & Čakāne, 2019) and used these instruments to develop a methodology for identification and prioritization of teacher PD needs (Butkēviča, Namsone, & Čakāne, 2021; Greitāns, Eriņa, & Namsone, 2021). This paper describes our first attempts to link PD solutions, based in evidence about teacher PD needs, with appropriate PD forms and contents.

The aim of this research is to develop a content non-specific teacher PD model which links PD needs and interventions.

Literature Review

The Latvian general education system is undergoing a curriculum reform that is introducing 21st century skills, also called transversal competencies (Latvijas Republikas Ministru kabinets, 2018). The guidelines of the curriculum reform (Skola2030, 2017) emphasize the role of evidence-based school development goals in the process of the implementation of the new curriculum. Furthermore, for schools to set the development goals related to the new curriculum, it becomes crucial to determine whether teachers have the necessary competencies to ensure that schools can reach these new goals. Therefore, it is critical to identify teacher competence gaps and their PD needs and what teacher PD solutions are required.

Conceptualization of teacher professional competence for teaching 21st century skills is based on a multidimensional interplay of teacher knowledge, skills, attitudes that are learnable, and explain differences in teachers' performance (Kunter et al., 2013) and includes the situatedness of instruction (Kaiser et al., 2017). Research points out to a gap between teachers' actual and required competence where competence gap is obtained by comparing scores of two or more differently obtained assessment results (Febrianis, Muljono & Susanto, 2014).

To address teachers' PD needs for teaching 21st century skills, various PD interventions have already been developed (Postholm, 2012). However, the evaluation of these interventions and their achieved effects has been found to be widely divergent (Merchie, Tuytens, Devos, & Vanderlinde, 2016). High quality PD interventions provide a mixture of different phases: input, application, and reflection (Guskey, 1999, 145). Thus, high quality PD interventions combine seminar phases with learning on-job at school. In particular, they provide input on relevant topics, participants are able to implement this input in their daily work, and teachers reflect their professional competencies and beliefs (Borko, 2004). Here, opportunities for exchange with colleagues as well as feedback from the teacher educators and colleagues are essential. In particular, teacher tandems (colleagues from the same school, who jointly use a PD intervention) enable mutual support and feedback, which fosters the development of competencies. This leads to a virtuous circle of action and reflection, which makes PD interventions relevant for teaching practice (European Network of STEM PD Centres, 2019).

An PD intervention that has received recognition worldwide is Japanese lesson study. In this intervention teachers with a common focus meet, plan, conduct a research lesson and reflect about it (Fernandez & Yoshida, 2004). In the last two decades researchers have implemented the principles of Japanese lesson study in different countries and proven that the PD trough lesson study:

- offers teachers the opportunity to develop ownership of the improvement effort, a commitment to inquiry, shared goals, and a sense of responsibility to their colleagues and students (Lewis, Perry, & Hurd, 2009),
- gives teachers a chance to differentiate the PD according their needs (Perry & Lewis, 2009, p. 388),
- enables teachers to build on their efforts and refine their understandings (Lewis et al., 2009).

In previous studies our research group has described the implementation of lesson study in primary teacher PD (Namsone, Čakāne, France, & Butkēviča, 2016) to promote teaching of 21st century skills. The research showed that primary teachers participating in a lesson-based professional development program with a strong continuous collaborative element gained an understanding of the importance of implementing 21st century skills in the classroom. Our research groups previous studies also describe development of The Framework of Teacher Performance Assessment to Support Teaching 21st Century Skills (Bertule et al., 2019), consisting of 8 categories (identified with "IA" or "IB") that are characterized with 13 criteria and structured in three domains of teaching practice – planning (1), teaching (2), classroom

environment (3). Validated performance level descriptors (PLDs) of these criteria were used in a qualitatively oriented lesson observation study in combination with tests and questionnaires filled online by teachers, whose lessons were observed, to determine teacher groups PD needs. The average performance of group teachers, which included the teacher sample researched in this paper, reached the required level regarding instructional design, however competence gaps regarded to learning goals and feedback were identified. These gaps should be crossed through personalised and evidence-based PD interactions, at least in group level (Butkēviča et al., 2021).

The analysis of teacher groups competence gaps and professional development needs led authors to the goal of this research: to design a PD model to address teachers' PD needs regarding effective lesson design with a focus on learning goals and feedback to students. This paper describes first piloting of the model and its analysis through evaluation of features of the model and participant learning.

Therefore, following research questions arise:

1. How to design PD model, based on teacher groups PD needs?
2. What first piloting results show about the features of the developed model and participant learning?

Methodology

Study sample consists of 3 sub-samples of grade 1 to 8 teachers: 10 primary school teachers (sub-sample 1: school A, municipality X, urban), 15 lower secondary school teachers (sub-sample 2: school A, municipality X, urban) and 40 lower secondary school teachers (sub-sample 3: school B, municipality X, urban). This paper describes results obtained from sub-samples 1&2.

In previous research our group has identified that teachers of sub-samples 1 & 2 have PD needs to progress from level 1 to level 2 regarding criteria 1.1. & 1.3. from the Framework of Teacher Performance Assessment to Support Teaching 21st Century Skills. To meet the schools A goal (to reach level 2 in criteria 1.1., 1.2.(metacognitive skills) & 1.3.) we agreed with the school's administration to pilot this research and a PD program to cross teacher PD needs.

Design of the model was done through in-depth analysis of teacher lesson observations, teacher test and questionnaire data; in-depth analysis of student performance data from national level diagnostic tests, and through consultations between experts, researchers, school administration and teachers.

The design of the model was done according to the principles of design-based implementation research (Fishman, Penuel, Allen, Cheng, & Sabelli, 2013).

The following principles were set at the beginning of the model development. The PD model and programs designed according to it should such features as:

- regular input workshops combined with regular opportunities to implement the input in classroom practice, analyse and reflect about it,
- teacher collaboration,
- contents to deepen teacher understanding according to their PD needs.

A PD program developed according to the model was implemented in the school A from August 2020 to December 2020. The first two workshops were organised face-to-face, the concluding two - online. The input workshops included following learning forms: a short lecture, an individual or group task (i.e., analysis of lesson video recordings or documents), discussions (individual or group forms were chosen according to content) and Q&A sessions.

Between the workshops' the 25 participants collaborated in 9 small groups (2 to 3 teachers) to create three lesson plans, observed and analysed each other's lessons. Following guidelines for collaboration were set: after the workshop the group collaborates to design a research lesson plan, which includes reading literacy. The group chooses one teacher who has to lead the research lesson. Throughout the program each participant has to lead at least one research lesson, which is observed and transcribed by the rest of the group. After the research lesson the group meets to give feedback and to discuss improvements. Before the input workshop the group has to submit the lesson plan and a short report of their analysis. Participants received feedback and questions for reflection from workshop leaders to improve their plans.

Evaluation of the model was done according to the extended framework for evaluation of teachers' professional development initiatives (Merchie et al., 2016).

Selected short answer questions from the participant questionnaire, expert field notes and submission of lesson plans were used to triangulate the evaluation of following features of the model: collaborative lesson study, input workshops & forms of online and face-to-face learning, workshop leader feedback.

Selected Likert-scale type questions from the participant questionnaire, expert field notes and analysis of lesson plans were used to triangulate the evaluation of participant learning throughout the program.

Field work: 4 experienced (7-17 yrs) and trained experts observed the implementation of the developed model from August 2020 till December 2020.

Participant questionnaire: contained 4 Likert-scale type questions (on a scale from 5–0, where 5 stands for “yes, agree completely” and 0 – “definitely not”) and 4 short answer questions regarding participant experience and satisfaction throughout the program.

Participant lesson plan analysis: done according to validated performance level descriptors (PLDs), on a scale from 0 to 4, of criteria 1.1. (learning goals), 1.3. (feedback to students) and 5.1. (lesson design) from the Framework of Teacher Performance Assessment to Support Teaching 21st Century Skills. The criterion 5.1. was chosen to confirm the findings of our previous research, that teachers of the study sample have reached the desired level in this criterion. The other two criteria – to evaluate teacher learning. Additionally, for this study PLDs for the level 3 and 4 are combined into one 3+ level.

Limitations of the research: The participant lesson plans were assessed by 3 experts; interrater reliability has not been calculated. Due to restrictions caused by COVID-19 pandemic part of the implementation of the model and teacher collaboration was carried out online.

Research Results

How to design TPD model, based on teacher groups PD needs?

The initial PD model, developed according to selected methodological principles, is visualised in Figure 1.

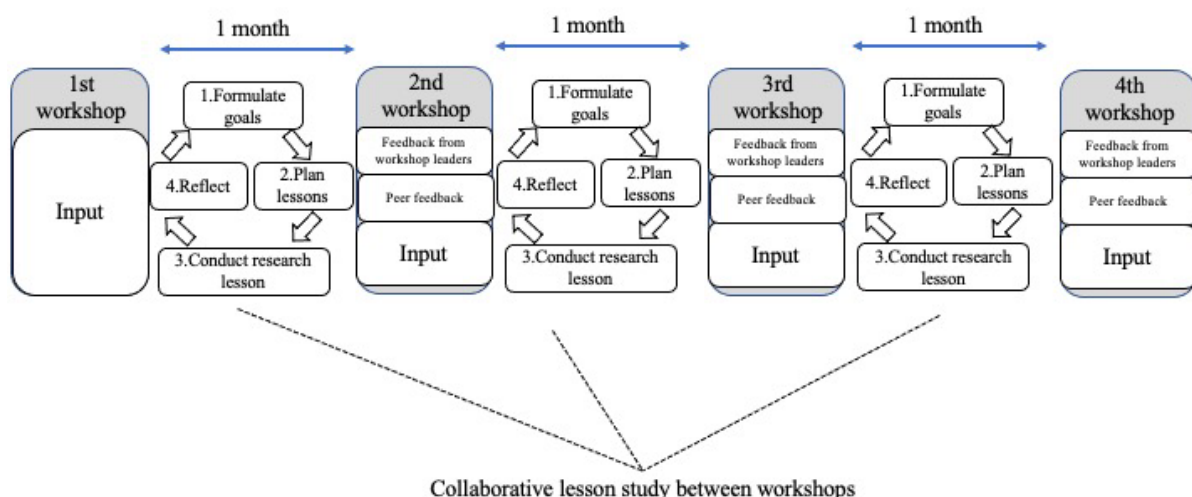


Figure 1 The Developed PD Model [created by authors]

The developed model and analysis of schools A teacher PD needs, student performance data from national level diagnostic tests, and consultations between

researchers and schools A administration were used to develop a pilot PD program.

The developed pilot PD program was aimed to:

- promote teacher understanding of effective lesson design with a focus on learning goals and formative assessment,
- implement the contents of the program in classroom practice,
- promote student reading literacy.

The planning of the pilot PD program started with selection of general contents of the program according to the aims set. The topics and curriculum-related context for the input workshops (Table 1) were selected according to previously identified teacher PD needs in criteria 1.1. & 1.3. (topics 1-3) and student learning needs. The student learning needs regarding reading literacy was chosen based on analysis of schools A student performance data from national level diagnostic tests of previous 2 school years.

Table 1 General Content of the Program

	Topic 1: Lesson design	Topic 2: Learning goals	Topic 3: Formative assessment
Contents selected regarding teacher PD needs	Backwards design in lesson planning. Features of an effective lesson. Principles of lesson study. Teacher collaboration throughout lesson study.	SMART criteria. Communication of learning goals to students.	Principles of formative assessment. Feedback in lesson.
Contents selected regarding student needs	The concept and structure of reading literacy. Teacher collaboration to promote reading literacy	Student skills related to reading literacy. Reading literacy in lesson.	Using reading literacy assessment rubrics in formative assessment

What first piloting results show about the features of the developed model and participant learning?

Features of the developed model

Although teachers had no previous experience in collaborative lesson studies, they were satisfied with this experience. 16 of 25 participants evaluated the collaborative lesson study as successful, 7 - as almost successful. 16 of 25 participants described their experience during research lessons as successful or without difficulties. 6 of 25 teachers described their experience in collaborative lesson planning during the lesson study as successful or without difficulties.

Most of teachers – 13 mentioned, that lesson planning during the lesson study required additional time. Throughout the program, all groups followed the guidelines for collaboration and submitted their lesson plans timely.

Most participants mentioned lesson video analysis (20 mentions) as a successful form of learning. 9 participants mentioned difficulties regarding forms of online learning or use of ICT. 18 participants stated that online learning caused no difficulties or improved their experience. During the field work experts noted that teachers of sub-sample 2 participated in the input workshops more actively than teachers of sub-sample 1. According to experts, teachers of sub-sample 2 also stated deeper questions and reflected about their practice more critical.

Participant learning

Expert notes confirmed that the samples teachers have sufficient prior understanding in instructional design. The lesson plan analysis (Table 2) confirmed that: 3 of 4 teacher groups from sub-sample 1 and all 5 teacher groups representing sub-sample 2 reached the required level in lesson design in the last two lesson plans submitted. 3 sub-samples 2 teacher groups even progressed to level 3+ in the last lesson plan submitted.

Table 2 Comparison of Sub-sample Performance in Lesson Plans

Criteria	2nd lesson plan			3rd lesson plan			Total teacher groups
	1.1.	5.1.	1.3.	1.1.	5.1.	1.3.	
No. of teacher groups that reached the required level. Sub-sample 1.	3	3	0	3	3	1	4
No. of teacher groups that reached the required level. Sub-sample 2.	2	4	0	4	5	2	5
No. of teacher groups that reached level 3+. Sub-sample 2.	0	0	0	0	3	0	5

According to questionnaire (Table 3), teachers also strongly agree that they understand effective lesson design.

Table 3 Participant Answers to Likert-scale Questions Regarding Their Understanding

Statement	Response (Max. 5.00)
I understand the effective lesson design.	4.45
I can explain with examples, how to state learning goals according to SMART criteria.	4.39
I have gained understanding about formative assessment.	4.29
I have gained understanding about student reading literacy.	4.55

n=25; Cronbach's alpha = 0.76

Expert notes indicated that in the second workshop participants showed understanding about learning goals through questions and discussions. The lesson plan analysis (Table 3) confirmed that: already in the second lesson plan 3 of 4 teacher groups from sub-sample 1 and 4 of 5 teacher groups representing sub-sample 2 reached the required level in learning goals. According to questionnaire (Table 2), teachers also strongly agree that they understand how to state learning goals.

Expert notes showed that formative assessment was a challenge to samples teachers. Experts noted that participant comments, discussions and questions showed partial or no understanding regarding about feedback. The lesson plan analysis (Table 3) confirmed challenges in implementation of effective feedback into lessons. at the end of the program only one group from sub-sample 1 and two groups from sub-sample 2 reached the required level in feedback. However, these results can be viewed as a progress, because no groups reached the required level in this criterion before. The questionnaire answers (Table 2) showed that participants rate their understanding highly, however lower compared to understanding about other topics.

Conclusions and Discussion

A PD model that includes 4 input workshops and collaborative lesson studies between them was developed. Regular input workshops combined with regular opportunities to implement the input in classroom practice, teacher collaboration and contents to deepen teacher understanding according to their PD needs were the key principles in the development of the model.

To pilot the model, a PD program, which links schools aims and identified teacher PD needs with appropriate contents and solutions was developed. The PD program was piloted in one school with the aim to deepen teachers understanding in effective lesson design with a focus on learning goals and feedback. Piloting confirms the practical applicability of the model and a successful interplay between input workshops, classroom practice and its analysis. The model and the program developed according to it was piloted with primary and lower secondary school teachers. Further applicability with different teacher groups and contents should be researched.

The piloting of the model showed that lower secondary school teachers progressed in their understanding faster than primary school teachers. The results once more highlight that it is challenging for teachers to implement information about process and self-regulation in feedback. The combination of between programs contents and chosen PD forms should be researched to create more effective PD interventions for primary school teachers.

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HORSES AND GESTALT COACHING: A PROMISING COMBINATION FOR LIFE SKILLS LEARNING

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Abstract. *Life skills play an important role in developing adaptive behaviours that are necessary to improve one's quality of life. An individual with a broad range of life skills is more resilient than one with fewer skills. They can better withstand the challenges of constant change, successfully coping with stress and creating a fulfilling life. The aim of this research is to theoretically substantiate the possible benefits of equine-partnered gestalt coaching in life skills learning. Both Gestalt coaching and horses – specifically in context of different methods incorporated in equine assisted activities – are mentioned as they relate to the improvement of various aspects of quality of life based in life skills learning.*

Keywords: *gestalt coaching with horses, life skills, stress, horses, resilience.*

Introduction

Life skills play an important role in developing adaptive behaviours that are necessary to improve one's quality of life. An individual with a broad range of life skills (LS) is more resilient than one with fewer skills. They can better withstand the challenges of constant change, successfully coping with stress and creating a fulfilling life. The pace of life has increased over the last few decades, and the need to handle stress in healthy ways has become more important. The lack of effective coping strategies and an inability to adapt to changes in our personal or professional lives can significantly decrease quality of life and have a negative impact on mental and physical health.

Life skills include a wide range of cognitive, social, and emotional skills. The focus of traditional educational systems might not develop all of them sufficiently well to enable us to cope effectively with life's challenges. Rapid technological progress, uncertain economic situation and changes in social norms have increased the demand for LS education. This is equally the case for adolescents who are adjusting to becoming independent individuals, for helping professionals and first responders who face high levels of stress at work, or anyone interested in leading a healthy and emotionally fulfilling life.

The aim of this research is to theoretically substantiate the possible benefits of equine-partnered gestalt coaching in life skills learning.

Horses have played a huge role in human history, being used for labour, war, and entertainment. Nowadays in the western world, besides their role in sports and leisure, a new field of horse-human partnership is gaining in popularity. Horses are partnering with humans with the aim of offering both LS learning and healing for individuals with physical and psychosocial health problems or challenges. In this research, the main focus will be on a relatively new field in science – the psychosocial health benefits related to equine interactions, where riding is not the main or only activity. Equine-assisted learning, mostly popular for leadership training or teambuilding in corporate environments, Equine-assisted therapy, where psychotherapists combine their skills with the presence of the horse, or other Equine-assisted activities provide benefits beyond traditional therapies in the acquisition of core LS during sessions, and subsequent increases in quality of life.

Coaching as a learning experience also offers opportunities for direct or indirect LS acquisition and provides the client tools and strategies with which to approach daily challenges in more productive and successful ways. Gestalt coaching is based on the principles of Gestalt therapy, thus holding a holistic approach to problem solving and enabling the wellbeing of an individual by addressing resistances that stand in a way of necessary behaviour change. The Gestalt approach to coaching and partnering with a horse in therapeutic or learning activities both work towards the same goals. When Gestalt coaching is combined with the presence and partnership of a horse, the potential for highly effective LS learning can be amplified.

Life Skills

Life skills play a huge role in an individual's capacity to create well-being and maintain a high quality of life. The positive impact of LS training on mental health have been reported (Hajizadehanari et al., 2013; Sahu & Gupta, 2013). LS can be defined as isolated behaviours meant to address practical aspects of life (for example, managing money, preparing a meal), or psychosocial characteristics (Hodge, Danish, & Martin, 2013). In this research the focus will be on the latter meaning, according to this LS education definition given by World Health Organization (WHO): "Life skills education is aimed at facilitating the development of psychosocial skills that are required to deal with the demands and challenges of everyday life" (WHO, 1999; p. 1). Other terms mentioned in the literature describing methods used to increase personal competence include, but are not limited to: "social-emotional learning,

emotional intelligence, positive psychology, resilience, and character education” (Hodge et al., 2013; 1127).

WHO describes five basic areas of LS that hold their value across different cultures: “(a) decision-making and problem-solving; (b) creative thinking and critical thinking; (c) communication and interpersonal skills; (d) self-awareness and empathy; (e) coping with emotions and coping with stress” (WHO, 1999; p.1). Increasing and strengthening competences in even a couple of those areas can improve an individual’s quality of life and resilience. Resilience can be described as a process where both stress resistance and stress recovery play a part (Montpetit, Bergeman, Deboeck, Tiberio, & Boker, 2010). Even if only one area of LS is specifically devoted to coping with stress, the other four areas also contribute to more or less of an extent.

The concept of needing LS education related to stress management is not a new one. Hays & Eddy mentions self-confidence and self-concept as a strategy to buffer negative aspects of stressful events and informs us of the importance of four LS: values clarification, decision making, communication skills and coping skills (Hays & Eddy, 1985). More recent information suggests including LS education into the regular school curriculum to meet the requirements of 21st-century life, and stressing the importance of equally developing social, emotional and cognitive skills. The lack of LS is associated with substance abuse and anti-social behaviour, and empathy is mentioned as a core resource for individuals to function well in society (Prajapati, Sharma, & Sharma, 2017).

Life skills learning, especially when self-management and social skills are included, is known to improve psychological well-being for female adolescents (Bahramabadi, Manee, & Issazadegan, 2015), is used for prevention of adolescent drug abuse (Botvin & Griffin, 2004), and even as a tool to reduce parental stress for mothers with visually impaired children (Khooshab, Jahanbin, Ghadakpour, & Keshavarzi, 2016).

Another important detail to consider in LS education is that learning “about” LS will not create the desired effect. The learning needs to be integrated through practical application before resulting in positive behaviour change that supports the individual’s mental and emotional health. What makes LS learning successful is the chance to practice needed behaviour and experience its effects (Sahu & Gupta, 2013).

Psychosocial Benefits from Interactions with a Horse

The term “Equine-assisted Therapy” (EAT) can describe a wide variety of activities with a horse, including riding for therapeutic reasons (Hippotherapy, Therapeutic Riding), Therapeutic Vaulting for physical capacity improvement, Therapeutic carriage driving for individuals with disabilities that do not allow them mounted exercises, Equine-assisted Activities (EAA) for mental health and personal growth, Equine-assisted Learning (EAL) or Equine-Facilitated Learning for self-awareness, confidence building and communication skills improvement, and Equine-facilitated Experiential Learning or Equine-facilitated Psychotherapy (EAP) where psychotherapists work within the range of their specialities, adding input from a horse (White-Lewis, 2019). All types of activities that involve interaction with a horse provide psychosocial benefits in some way, however in this research the focus will be on methods that do not involve riding as a main therapeutic modality.

EAL, EAA, and EAP can include various interactions with a horse mixed in a way that is unique to each specific situation, method used, and specialist who is providing the service. Those interactions can be either simply enjoying the presence of a horse, observing horse behaviour and reflecting on one’s own life situations, observing horse behaviour as a result of a change in the participant’s inner state, grooming the horse, working with a horse, using natural horsemanship methods, leading a horse through an obstacle course, meditation with a horse, or other. That is one reason why the effects of various methods tend to overlap, and at the same time we need to keep in mind that, when looking for a method to address specific LS learning, some might be more effective than others.

There are a couple of practical reasons why learning and healing in the presence of a horse may be preferred to other methods, for example, there is less stigma associated with Equine-assisted modalities than with traditional talk therapies in certain populations (Lee, Dabelko-Schoeny, Jedlicka, & Burns, 2020), especially when the clients’ cultural norms are less accepting of traditional western therapy (Coffin, 2019). A part of the success of EAT is the unconventional setting in which the interactions take place: the out-of-office environment, and the novelty of the process itself for many participants (Ho, Zhou, Fung, & Kua, 2017). What is more important to consider, however, are the unique qualities horses themselves bring to LS learning that would not be available otherwise.

To start, the size of a horse and its physical capabilities relative to those of a human being evokes images, and together with interaction with a horse, can have an effect on the client’s feelings, triggering fear, excitement or apathy (Notgrass & Pettinelli, 2015). Sensitive clients, especially if they are recovering

from emotional trauma, can relate to horses because they, as prey animals, are alert for potential dangers from predators, and their first choice would be to flee when afraid (Vidrine, Owen-Smith, & Faulkner, 2002). When it comes to mindfulness, horses lead by example with their essence. Their natural state of being is in the present moment, fully embodied, in connection with herd members and surroundings, grazing peacefully and avoiding unnecessary expenditure of energy (Burgon, Gammage, & Hebden, 2018). The innate sensitivity and vigilance horses have for survival reasons helps them to feel each other and in similar way – the presence of humans as well. They trust humans when we can contribute to their safety, and that means being present and congruent in our thoughts, feelings, and behaviours (Porter-Wenzlaff, 2007).

The authenticity in the behaviour horses demonstrate often encourages the client. They are not restricted by social norms human have (don't have to wear clothes, they can eat from the ground, and are allowed to leave the mess behind), and they interact in non-judgemental way (Vidrine et al., 2002). In responding to a client's behaviour using non-verbal communication, horses help the client to become aware about how the behaviour is perceived, and to identify and express feelings (Schultz, Remick-Barlow, & Robbins, 2007).

There is also growing number of studies looking into topics how horses respond to interactions with humans. For example, they can recognize human facial expressions and respond to them both behaviourally and physiologically (Smith, Proops, Grounds, Wathanand, & McComb, 2016); the same is true about the client's attachment style (Arrazola & Merckies, 2020).

Considering the role of a horse in learning and healing activities is often more than that of a simple tool, there is another suggestion for how to label interventions with the involvement of the horse: "If patients gain insight and mindfulness by interacting with a sensitive horse who responds to their emotional states, a more appropriate term for equine-assisted therapy may be equine-partnered therapy" (Earles, Vernon, & Yetz, 2015).

Interactions with a horse can benefit clients of all ages, from children to seniors. Because of the non-judgemental, non-verbal, clear communication horses offer, populations where EAT is used the most are: individuals with PTSD, people on the autism spectrum and those with ADD/ADHD, at-risk youth, prisoners for behaviour reform, individuals recovering from substance abuse, and in cases where social interaction improvement is needed (White-Lewis, 2019). The common goal in all of these situations is to evoke necessary prosocial behaviour changes that will improve overall quality of life. The effectiveness of EAT for LS learning has also been shown to enhance the professional capacity of nurses, doctors, and social workers (Jarolmen, 2018; Walsch & Blakeney, 2013).

The unique qualities horses bring in horse-human interactions, and the benefits clients receive, suggests that – directly or indirectly – equine-partnered interactions in both therapeutic and learning contexts, depending on the aim of the session and method used, can improve one or more of the five LS previously listed, at least to some degree. Self-awareness and empathy are the main ones addressed directly with equine-partnered therapy or learning. Those are also fundamental skills that support the successful development of all other LS areas. Communication and interpersonal skills develop naturally through interaction with another live being who is social by nature and communicates non-verbally across species. Problems coping with emotions and coping with stress are often solved by improving self-awareness and empathy and adding the horse's feedback about the congruence of the client's thoughts, feelings, and behaviours. Increasing self-awareness and empathy, improving communication and interpersonal skills, supporting emotional regulation, and building stress resilience all create a strong base for building indirect success in decision making, problem solving, creative thinking, and critical thinking. Additional specific activities can be designed to further improve creative and critical thinking depending on the client's needs.

One of the most common benefits mentioned in EAT research is an improvement in self-esteem, which, in turn, is known for lessening the effects of daily stress (Montpetit & Tiberio, 2016), and needed for healthy relationships (Marigold, Holmes, & Ross, 2010). An increase in self-esteem can be accompanied by increased confidence, an improvement in emotional regulation, better self-control, and a decrease in undesirable behaviours (Wilson, Buultjens, Monfries, & Karimi, 2017).

Improved self-awareness has been reported as a result of leadership training (Kelly, 2014). This, together with improved non-verbal communication and empathy, are listed as outcomes for social workers and nurses during professional competence building with the assistance of horses (Jarolmen, 2018; Walsch & Blakeney, 2013). Improved confidence, boundary-setting, creative thinking and problem solving, trust, partnership, and teamwork are also mentioned (Walsch & Blakeney, 2013). Increased comfort with ambiguity, another useful trait for coping with stress, has also been reported (Murphy, Wilson, & Greenberg, 2017).

It is hypothesized that, due to ability of a horse to invite a human to join them in a state of mindfulness, clients may experience a reduction in symptoms of anxiety (Earles et al., 2015). In combination with classical psychotherapy, not only were decreases in anxiety and depression reported, but also improved regulation of behaviour, cognitive functioning, and positive coping skills (Naste et al., 2018). Interventions involving leadership training and problem-solving skills learning can lead to improvements in communication skills the ability to

cope with emotions and stress (Coffin, 2019). Interplay between different areas of LS is shown in another study, where improved thinking flexibility, empathy, and impulsivity control resulted in better academic performance for adolescents (Ho et al., 2017). Results show that interactions with horses are capable of decreasing levels of the stress hormone cortisol, thus decreasing the risks of developing physical and mental health problems associated with elevated levels (Pendry, Smith, & Roeter, 2014).

The benefits of EAT as noted are extensive, partly because partnering with horses offers LS learning in the most effective way: learning by experience, involving not only cognitive engagement, but also physical and emotional (Kovács, van Dijke, & Enders-Slegers, 2020).

Even though these findings show multiple benefits of LS learning in the presence of horses, data need to be treated carefully. Many studies lack control groups in order to fully estimate the effect of the activities (Anestis, M.D., Anestis, J.C., Zawilinski, Hopkins, & Lilienfeld, 2014), and it is difficult to directly evaluate the effect of the horse, as activities often include many elements that contribute to the abovementioned benefits (Klontz, B.T., Bivens, Leinart, & Klontz, T., 2007).

Gestalt Coaching in Life Skills Learning

Applying Gestalt principles in a therapeutic setting is known to enhance LS learning for children with learning disabilities and behavioural disorders, resulting in improvements in a variety of practical daily activities (independence, motor and cognitive ability, social interaction). The variety of areas influenced by gestalt therapy shows the benefits of the gestalt philosophy of working with client as a whole (Žic, Nikolić, & Igrić, 1996).

Gestalt principles can be combined with various types of coaching, which on their own have been known to have a positive impact on wellness and quality of life through learning and implementing LS. For example, life coaching is known to improve self-awareness, self-confidence, and emotion regulation, while also helping to stop undesirable habits and create desirable behaviour change. Decreased levels of depression and anxiety are also observed (Jarosz, 2016). Co-active coaching can help to decrease levels of perceived stress, anxiety, and depression, and has resulted in increased self-awareness (Fried & Irwin, 2016). However not all coaching interventions are successful in reducing anxiety (Jarosz, 2017). Business, leadership and executive coaching can promote psychological wellbeing and improve resilience and interpersonal relationships (Grover & Furnham, 2016).

Coaching as an action-based learning experience is focused on creating positive change in alignment with the client's beliefs, values, and motivations (Walk, 2009). In addition, Gestalt coaching specifically addresses resistances to change by bringing them into awareness so they can be processed and neutralised (Siminovitch & Van Eron, 2006). As with equine-partnered activities, one of the key-elements in Gestalt coaching is present-centred awareness. This creates an opportunity to achieve new insights and practice new behaviour or actions. It is also non-judgemental, because the Gestaltist holds the client as equal, and focuses on the client's process: there is no "right" or "wrong" standard being externally imposed (Stevenson, 2005).

Life coaching based on Gestalt principles, may have similar outcomes to Gestalt therapy because, in working towards desired change, the self-awareness activated during the experiential process brings up resistances linked with client's emotions, which are addressed through experiments that allow exploration and resolution (Gillie, 2009). Gestalt theory considers learning as the process that occurs in the contact of individual with the environment, and gives guidelines for creating an optimal learning environment – one based in trust, safety, and using the client's awareness to locate and free the energy for necessary behaviour change at the appropriate time for the client (Simon, 2009).

Looking at Gestalt coaching from the LS learning perspective, again, we can see that self-awareness, coping with emotions, and developing interpersonal skills are addressed directly. Healthy decision-making and problem solving comes from the place where individual is not in conflict with oneself but has instead achieved congruence between their values and behaviours. Gestalt coaching supports that by helping the client overcome resistances and showing the benefits of values-based actions. All these outcomes increase the client's ability to cope with stress, and free emotional and cognitive resources for the improvement of creative and critical thinking. Creative thinking specifically benefits from a Gestalt approach, by providing new tools for self-exploration in an experiential setting.

Conclusions

Gestalt coaching in combination with the presence and partnership of horses holds potential for effective life skills learning. Both Gestalt coaching and partnership with horses offer optimal environment for learning, specifically: present-centred awareness and an experiential, non-judgemental, hands-on process. And both Gestalt coaching and partnership with horses work towards self-esteem building and support the behaviour changes necessary for an individual to be able to apply learned life skills in real life situations.

All five life skills areas could be targeted directly or indirectly. Self-awareness and empathy, coping with emotions and coping with stress, and communication and interpersonal skills are the primary directly targeted areas.

As Gestalt coaching, partnership with horses, and their combination for psychosocial health improvement, represent a relatively new field of scientific study, there is a need for quantitative and qualitative research with specific life skills outcomes measured.

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PAŠIZZIŅA – NOZĪMĪGS FAKTORS SKOLOTĀJU EMOCIONĀLĀS ATSAUCĪBAS PILNVEIDOŠANĀ MŪŽIZGLĪTĪBĀ

Self-knowledge: an Important Factor for Improving Teachers' Emotional Responsiveness in Lifelong Education

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Abstract. *The quality of a teacher's professional activity is closely tied to personal growth. Personal growth, however, is influenced by self-knowledge (K. G. Jung 1994, 2001; Wilber 2010, 2013; Plotkin, 2020; Dispenza, 2015, 2016). Nowadays, there is a shift in the approaches of upbringing and educational work – from a child-focused approach to a child-centered one (OECD, 2019). Therefore, one of the currently relevant skills is getting to know oneself in order to cooperate more successfully with others and be able to accept real-life situations. The results obtained confirm that through the self-knowledge process, teachers get to experience their own personality growth. Categories such as empathy, attitude, and daringness are identified in personal growth.*

The research shows that by experiencing the procedural activities of self-knowledge with the help of “Get to know yourself!” method and methodological tool developed by the author, teachers improve their emotional responsiveness.

The results of the study show that through the experiences gained in the self-knowledge process, teachers learn to integrate new models of action into their pedagogical activities.

The aim of the study was to show the importance of self-knowledge in improving teachers' emotional responsiveness in lifelong education, by using the method “Get to know yourself!” developed by the author of the study.

The objectives of the study were literature examination and evaluation and work with the target audience by using the author's method and methodological tool “Get to know yourself!”.

Methods: Literature studies, survey, observation.

Keywords: *Emotional responsiveness, pedagogical activity, personal growth, self-knowledge.*

Ievads

Introduction

Mūsdienās izglītībā notiek audzināšanas un mācību darba pieeju maiņa – no bērnfokusētas pieejas uz bērncentrētu pieeju, kur bērns tiek rosināts apzināties savas vajadzības, attīstīt prasmi izvirzīt mērķus, izvēlēties mācību metodes, kas der tieši viņa personībai. Tā ir atbildība un prasme sevi novērot un

sniegt regulāru atgriezenisko saiti, kas veicina personības izaugsmi (OECD, 2019). Lai mācītu šīs prasmes citiem, tad tās ir labi apgūstamas arī pašiem skolotājiem. Sava veida korekcijas pedagoģiskajā darbībā un izaicinājumus skolotājiem šobrīd ienes arī globālā pandēmija Covid - 19 . Tādējādi skolotājiem pastiprināti nākas apgūt jaunas zināšanas un prasmes savas profesionālās darbības pilnveidei. Viens no būtiskiem aspektiem, kas ienāk mūžizglītībā, ir skolotāja izpratne par sevis apzināšanos kā daļu no vienota veseluma. Notiek iepriekšējo vērtību pārvērtēšana, rodas interese par garīgumu, savas vietas apzināšanos pasaulē. Pašizziņa palīdz skolotājam labāk izprast bērnu rīcības attālinātajā un klātienē mācīšanas un mācīšanās procesā, pilnveido empātiju, dziļāk tiek izprasti un apzināti daudzie faktori, kas ietekmē cilvēka metakognitīvo darbību (Dispenza, 2015; Purēns, 2017). Globālās pandēmijas laikā, vadot pedagoģu profesionālās kompetences pilnveides izstrādātās valsts un autorprogrammas, varēja novērot , ka skolotājiem , veicot pašizziņas procesus, savstarpēji diskutējot par piedzīvoto, mainās attieksme un pārlicības par pedagoģisko procesu. Pakāpeniski veidojas un nostiprinās izpratne, ka skolotājs, mainot attieksmi pret sevi, iepazīstot un saprotot sevi , veicina skolēnu izaugsmi ne tikai mācību sasniegumos, bet arī attieksmēs. Pētījumā iepazītās teorētiskās atziņas (Jungs, 1994, 2001; Vilbers, 2010, 2013; Dispenza, 2015, 2016; Purēns, 2017; Spadaro, 2018; Plotkins, 2020.) ļauj apgalvot, ka pārveidojoši ir tie brīži cilvēka personībā, kad viņš pats caur piedzīvoto nonāk pie citas izpratnes par savu patību, iegūtās atziņas integrē dzīves un profesionālajā darbībā. Praksē tiek piedzīvotas atklāsmes, ka skolotājs apzinās pašizziņu kā vērtīgu instrumentu savas profesionalitātes paaugstināšanā. Kēns Vilbers savos novērojumos par cilvēka izaugsmi atzīst, ka , cilvēks ,augstāk uzkāpjot Dzīves skolā, dziļāk izprot , ka ir vajadzīgas dziļākas zināšanas, lai vestu sev līdzti tos, kuri atrodas kādus pakāpienus zemāk un neapstātos savā attīstībā (Vilbers, 2010).

Šim pētījumam tika izvirzīts šāds mērķis: Parādīt pašizziņas nozīmi skolotāju emocionālās atsaucības pilnveidošanā mūžizglītībā, izmantojot autores izstrādāto metodi “Iepazīsti sevi!”.

Pētījuma metodes: Literatūras studijas, I. Kušneres veidotā aptauja šī pētījuma ietvaros, Novērošana.

Pētījumam tika izvirzīti trīs pētījuma jautājumi. Pirmais pētījuma jautājums – “Kā pašizziņa sekmē skolotāja personības izaugsmi?” Otrais pētījuma jautājums – “Kā sevis iepazīšana veicina skolotāja emocionālās atsaucības veidošanos?”. Trešais pētījuma jautājums -”Vai autores piedāvātā metode un metodiskais līdzeklis “Iepazīsti sevi!” palīdz sakārtot un strukturēt domas, izprast sevi un vadīt emocijas? ”.

Teorētiskais apskats par pašizziņas nozīmību personības izaugsme *Theoretical Review of the Importance of Self-knowledge for Personal Growth*

Laikā, kad daudzu zinību jomās parādās pētījumi par visa savstarpējo saistību, kad pasaule piedzīvo globālo pandēmiju Covid – 19, raisās domas, tiek meklēti risinājumi, kā cilvēkam pašam veikt izmaiņas sevī. Tā ir fundamentāla sevis iepazīšana, apziņas maiņa. ASV psiholoģijas zinātņu doktors Bils Plotkins atzīst, ka cilvēkam ir jāapgūst un jāiedzīvinā savs sākotnējais veselums, iedzimtā cilvēciskā būtība, ko mums piešķīrusi pati daba (Plotkins, 2020). Patība ir integrāls veselums, iedzimtu resursu kopums, kas ir kopējs visiem cilvēkiem un ietver visas mūsu cilvēcīguma spējas. Patība sevī ietver četras cilvēciskā veseluma šķautnes, kuras cilvēkā ir jau kopš dzimšanas brīža. Tās aktualizēt, iedzīvināt ir cilvēka uzdevums, kuru var īstenot caur pašizziņas procesiem. Nereti šīs šķautnes sauc arī par arhetipiem, universāliem cilvēku uzvedības un rīcības modeļiem (Plotkins, 2020). Cilvēka psihē darbojas subpersonības, ievainotie un reizēm apslēptie psihes fragmenti – upuris, dumpinieks, kritiķis, tirāns, atkarīgais. Subpersonības izveidojas bērnībā, to uzdevums ir pasargāt cilvēku no fiziska, psiholoģiska un sociāla kaitējuma. Freida un Junga analizēs to sauc par kompleksiem (Jungs, 1994; Freids, 1996). Bieži vien šie kompleksi palīdz, bet dažreiz arī kaitē. Kā uzskata, cilvēka dziļāko dziļu pētnieki, patība un subpersonības nav kādi “objekti” vai “cilvēciņi “mūsos, drīzāk tās ir atšķirīgas paša cilvēka versijas , ko dažādās situācijās pieredz vai izspēlē. Subpersonības nerīkojas neatkarīgi no cilvēka, kura psihes sastāvdaļa tā ir (Jungs, 1994, 2001; Vilbers, 2010, 2013; Plotkins, 2020). Kad ego ir identificējies ar kādu subpersonību, tad var neapzināties pārējo versiju esamību. Turpretī, kad ego vada patība, tad spējām apzināties savas subpersonības un patības šķautnes, vairāk izmantot savus iekšējos resursus (Plotkins, 2020). Patība ir indivīda labklājības, garīgās attīstības, veselīgu attiecību un kultūras pamats. Tā ir tā psihes dimensija, caur kuru cilvēks spēj sadziedēt ievainojumus, ko aizsargā un iemieso subpersonības. Patība ir veselums, tā ir radoša, inteligenta un zinātkāra, pašpaļāvīga un priekpilna. Kad ego uztver realitāti caur patību, tad instinktīvi tiek atpazītas un godātas attiecības ar citiem cilvēkiem, lietām, ar izpratni tiek pieņemti notikumi (Plotkins, 2020). Līdzīgas domas par patības būtību ir arī Karlam Gustavam Jungam, kurš to definēja kā “veseluma arhetipu un psihes regulējošo centru” (Jungs, 1994). Pamatojoties uz teorētisko avotu analīzē gūtajām atziņām par cilvēka patību un veicot pētījumu, var teikt, ka cilvēkam ir būtiski izprast, izzināt sevi, izkopjot attiecības ar visiem psihes aspektiem. Kā atzīst Bils Plotkins, tad cilvēks pats saviem spēkiem nevar atgūt veselumu, pats var tikai dziedināties, iekšēji iepazīstot un pieņemot sevi. Taču pretī ir vajadzīgi pozitīvi paraugi, kas palīdzētu saprast, kā ir būt veselumā ar sevi, būt pilnībā cilvēciskam (Plotkins, 2020).

Cilvēkam piemīt metakognitīvas spējas – spēja novērot savas domas un patību (Dispenza, 2015; Purēns, 2017). Cilvēks var izlemt, kāds viņš vēlas būt, kā domāt, kā rīkoties, kā justies. Šī pašrefleksijas spēja ļauj izpētīt sevi, izstrādāt plānu, kā rast jaunus rīcības modeļus, lai iegūtu sev vēlamu rezultātu (Abram, 1996, Vilbers, 2013). Ja cilvēks vēlas piedzīvot jaunu personīgo realitāti, svarīgi ir veikt pašizziņas procesus, novērojot sevi un veicot dialogu ar sevi (Jungs, 1994; Goulmens, 2001; Dispenza, 2015; 2016). Ņemot vērā, ka personību raksturo tas, kā domājam, kā rīkojamies, ko jūtam, ceļā uz personības izaugsmi ir jāpievērš uzmanība zemapziņas domām, refleksīvajai uzvedībai un automātiskām emocionālajām reakcijām, novērojot tās. Lai iepazītu prāta un ķermeņa zemapziņas stāvokļus, nepieciešama griba, nolūks un paaugstināts zināšanu līmenis. Jo cilvēks kļūst zinošāks, jo kļūst uzmanīgāks (Spadaro, 2018; Pīlēns, 2019). Uzmanīgums paaugstina apziņas līmeni. Paaugstinot apziņas līmeni, cilvēks vairāk pamana, labāk pamanot, spēj veiksmīgāk novērot sevi un citus – gan iekšējās, gan ārējās realitātes elementus. Sevis apzināšanās mērķis ir panākt, lai apziņai nepaiet garām neviena doma, rīcības, emocijas, ko cilvēks nevēlas piedzīvot. Attīstot prasmi iepazīt savas patības aspektus, cilvēks kļūst apzinātāks, atbrīvojas enerģija jaunas dzīves un personības radīšanai (Jungs, 2001; Vilbers, 2013; Dispenza, 2015; 2016; Plotkins, 2020). Jo vairāk cilvēks iemācās sevi iepazīt, jo vairāk instrumentu iegūst, lai atvestu vecos rīcības modeļus un tādējādi piedzīvotu personības izaugsmi. Kā atzīst medicīnas zinātņu doktors neiroloģijā un smadzeņu darbībā Džo Dispenza, sasniedzot brīdi, kad attieksme, uzvedība, prasme vai rakstura iezīme, uz kuru cilvēks ir koncentrējies, garīgi vai fiziski vingrinājies kļūst par netieši iegaumētu personības programmu, tiek piedzīvota personības izaugsme. Tas ir ceļš no domāšanas uz darīšanu un būšanu. Jo domājošās smadzenes (neokortekss) izmanto zināšanas, lai aktivizētu jaunus ciklus jaunos veidos un lai izveidotu jaunu prātu. Tad domas rada pārdzīvojumu, un tas ar emocionālo (limbistisko) smadzeņu palīdzību rada jaunas emocijas. Domājošās un sajūtošās smadzenes pieradina ķermeni pie jauna prāta. Sasniedzot brīdi, kad prāts un ķermenis darbojas kā viens veselums, smadzenītes (trešās smadzenes) ļauj iegaumēt jaunu neiroķīmisko patību. Jaunais esības stāvoklis kļūst par dabisku programmu (Dispenza, 2015).

Metodoloģija *Methodology*

Pētījuma īstenošana notika vairākos posmos - zinātniskās literatūras studijas, metodes un metodiskā līdzekļa “Iepazīsti sevi!” izstrāde, pedagogu profesionālās kompetences pilnveides programmu izveidošana, aptaujas

jautājumu sagatavošana, mācību process pedagogu grupās, vadot pedagogu profesionālās kompetences pilnveides kursus. Darbs ar pedagogu grupām ietvēra arī aptaujas veikšanu, iegūto datu apkopojumu un izvērtējumu.

Darbs ar pedagogu grupām notika pedagogu profesionālās kompetences pilnveidesursos, kuros tika īstenota Izglītības kvalitātes valsts dienesta programma “Pedagogu darbnīcas par metodiskajiem atbalsta līdzekļiem “Atbalsts priekšlaicīgas mācību pārtraukšanas samazināšanai””. Ar katru izglītības iestādes pedagogu grupu sadarbība notika trīs reizes. Pētījums tika veikts arī pedagogu grupās, kur tika vadītas autores izstrādātās pedagogu profesionālās kompetences pilnveides programmas - “Metodisks atbalsts skolotājiem kompetencēs balstīta mācību satura īstenošanā”, “Skolotājs – mūsdienīga mācību procesa vadītājs”.

Izlases apraksts. Darbā ar pedagogu grupām tika iekļautas trīs novadu 29 izglītības iestādes. To vidū bija gan lauku, gan pilsētu 20 pamatskolas un 9 vidusskolas. Kopumā pētījumā tika iesaistīti 356 pedagogi. Aptauja un pedagogu novērošana darbībā notika klātienē, autorei vadot nodarbības laikā no 2020. gada augusta līdz oktobrim un attālināti “Zoom” vidē 2020. gada jūnijā, novembrī, decembrī.

No aptaujā ietvertajiem dalībniekiem 320 bija sievietes, to skaitā 175 bija sievietes vecumā no 45 - 50 gadiem ar augstāko izglītību un vairāk nekā 20 gadu darba pieredzi; 85 sievietes bija vecumā no 35 – 40 gadiem, ar augstāko izglītību un vairāk nekā 10 gadu darba pieredzi; 36 sievietes vecumā no 25 – 30 gadiem, ar augstāko izglītību, 3 gadu darba pieredzi; 20 sievietes vecumā no 50 – 65 gadiem, ar augstāko izglītību un darba pieredzi pedagoģijā 30 - 35 gadu intervālā; 4 sievietes bija vecumā no 70 – 75 gadiem, ar augstāko izglītību un vairāk nekā 50 gadu darba pieredzi pedagoģijā.

Aptaujā piedalījās 36 arī vīrieši, no tiem 10 bija vecumā no 50 – 55 gadiem, ar augstāko izglītību, vairāk nekā 25 gadu darba pieredze pedagoģijā; 20 vīrieši bija vecumā no 45 – 50 gadiem, ar augstāko izglītību, vairāk nekā 20 gadu darba pieredzi pedagoģijā; 6 vīrieši vecumā no 35 – 40 gadiem ar augstāko izglītību un vairāk nekā 10 gadu darba pieredzi.

Pētījuma instrumenti un datu ieguves procedūra. Pētījums tika veikts izmantojot trīs pētījuma instrumentus: Likerta skalu, aptaujas metodi (Pipere, 2011), izmantojot I. Kušneres izveidoto aptaujas anketu, kā arī novērošanu. Anketā tika ietverti šādi jautājumi - ”Kā pašizziņa sekmē skolotāja personības izaugsmi?”, “Kā sevis iepazīšana ar metodi “Iepazīsti sevi!” veicina skolotāja emocionālās atsaucības veidošanos?”, “Vai autores piedāvātā metode un metodiskais līdzeklis “Iepazīsti sevi!” palīdz sakārtot un strukturēt domas, izprast un vadīt emocijas?”. Šie jautājumi tika uzdoti visiem pedagogiem pēc pašizziņas procesuālām darbībām, izmantojot autores izstrādāto metodisko

materiālu “Iepazīsti sevi!” Par jautājumiem “Kā pašizziņa sekmē skolotāja personības izaugsmi?”, “Kā sevis iepazīšana veicina skolotāja emocionālās atsaucības pilnveidošanos?” dalībnieki reflektēja pāros, daloties savos gūtajos iekšējos piedzīvojumos, atklājumos par sevi, tad no pāru darba tika pāriets uz nelielu grupu (4 dalībnieki) darbu. Pēc dalīšanās pašpiedzē mazajās grupās, dalībnieki izvirzīja trīs būtiskas atziņas, par pašizziņas ietekmi skolotāja personības izaugsmē un emocionālās atsaucības pilnveidošanā. Ar iegūtajām atziņām tika iepazīstināta visa grupa. Nodarbību beigās grupas dalībnieki sniedza personīgo atgriezenisko saiti, kā iegūto informāciju par sevi integrēs dzīvē un profesionālajā darbībā. Ar vienu un to pašu grupu mācību process notika trīs reizes. Katrā satikšanās reizē, līdztekus programmā ietvertajām tēmām par pedagogu profesionālās kompetences pilnveidi kādā no izglītības jautājumiem, tika atvēlēts laiks pašizziņas procesuālām darbībām, izmantojot metodi un metodisko līdzekli ”Iepazīsti sevi!”. Metodiskajā līdzeklī ir ietverti 134 autores izstrādātie jautājumi, piemēram: Kas man dod mieru? Kas mani dzīvē virza un motivē? Kas mani sadusmo, un kas notiek pēc tam? Par ko savā dzīvē esmu pateicīgs/ -a? Kuras manas rakstura iezīmes un spējas ir dāvana pasaulei? Kāds cilvēks es gribu būt? Pašizziņas process tika piedāvāts ar tādām aktivitātēm, lai skolotājus iedvesmotu darbībai, sadarbībai, pilnveidotu prasmi novērot sevi gan emociju, gan domu, gan apzinātas darbības līmenī. Metodiskā līdzekļa vadmotīvs “Izproti sevi! Būsi tāds, kāds gribētu būt!”. Novērojot skolotājus aktīvā pašizziņas darbībā, varēja redzēt, kā nodarbību laikā mainās cilvēku ķermeņa valoda:

- ✓ sejā parādās smaids,
- ✓ plašāk atvērtas acis,
- ✓ biežāk uzdrīkstas pieiet viens pie otra klāt,
- ✓ sarunā viens otram ieskatās acīs,
- ✓ brīvākas kustības telpā.

Mācību procesā iesaistītie skolotāji otrajā satikšanās reizē atklāja, ka tagad pārvar savas iekšējās barjeras:

- ✓ uzdrīkstas runāt par sevi,
- ✓ dalās pieredzē,
- ✓ pazūd bailes,
- ✓ mazinās sasprindzinājums ķermenī,
- ✓ izjūt saliedētību.

Pārsteidzoši bija tas, ka šīs atziņas nāca no pedagogiem, kuru darba pieredze ir vairāk kā 20 gadu. Pašizziņas procesam aktīvi ļāvās arī vīriešu dzimuma pārstāvji. Pēc pašizziņas veiktajām darbībām viņi aktīvi dalījās par procesā iegūto pieredzi, atziņām, rastajām idejām un risinājumiem savas personības izaugsmei. Pašizziņas process notika emocionāli drošā, atbalstošā

vidē. Par to liecina pedagogu refleksijas nodarbību beigās par procesā piedzīvoto:

- ✓ izjutu vieglumu,
- ✓ mazinājās spriedze,
- ✓ jutos novērtēts,
- ✓ saskatu iespējas,
- ✓ saskatīju teorijas un prakses vienotību darbībā,
- ✓ piedzīvoju, kā attieksme pret mani maina manu domāšanu,
- ✓ kļūstu vērīgāks pret sevi,
- ✓ iegūti resursi, kā dzīvi padarīt gaišāku.

Pedagogu izteiktās domas, novērojums par iekšējiem pārdzīvojumiem sasauca ar Bila Plotkina un Džo Dispenzas izteiktajām atziņām, ka vajadzīgi pozitīvi paraugi, lai palīdzētu saprast, kā ir būt veselumā ar sevi, būt pilnībā cilvēcisksam. To var panākt, ja cilvēks iemācās iepazīt sevi (Dispenza, 2015, 2016; Plotkins, 2020). Tas apliecina teorijas un prakses vienotību darbībā, parāda nepieciešamību mūžizglītībā rast iespēju procesuālā darbībā skolotājiem piedzīvot dažādus pašizziņas procesus.

Rezultāti *Results*

Pētījumā iegūtie dati tika apkopoti un veikta to analīze (1.tab.). Atbildes, kuras tika sniegtas uz pirmo jautājumu varēja sadalīt 10 kategorijās, atbildes, kuras tika sniegtas uz otro jautājumu, tika sadalītas arī 10 kategorijās.

1.tabula. Pedagogu sniegto atbilžu kopsavilkums (Kušnere)
Table 1 Summary of Teacher Responses (Kušnere)

N. P.K.	Uzdotais jautājums	Atbildējušo respondentu skaits	Pieminējuma biežums izteikts % daļās no kopuma	Saņemtās atbildes
1.	Kā pašizziņa sekmē skolotāja personības izaugsmi?	98	28%	Palielinās empātija pret citiem
		73	21%	Apzinās, kā attieksme ietekmē skolēnu domāšanu, rīcību
		55	15%	Iegūtās zināšanas un pieredze ļauj vairāk uzdrīkstēties
		27	8%	Mācās izprast, novērot, vadīt savas emocijas

		25	7%	Tiek iegūtas zināšanas un pieredze, kā mainot savu uzvedību, var piedzīvot patīkamu, uz izaugsmi vērstu sadarbību
		21	6%	Profesionālajā darbībā vairāk ienāk radošums
		19	5%	Noticēšana sev
		16	4%	Tiek saskatītas cēloņu un sekū likumsakarības pedagoģiskajā darbībā
		14	4%	Paplašinās iztēle
		8	2%	Vairāk saskata pozitīvo vidē, cilvēkos
2.	Kā sevis iepazīšana ar metodi “Iepazīsti sevi!” veicina skolotāja emocionālās atsaucības pilnveidošanas?”	86	24%	Iepazīstot sevi no dažādiem aspektiem, mainās domas par sevi
		43	12%	Pozitīvās emocijās balstīta saruna iekšēji stiprina
		39	11%	Rodas idejas, kā uzlabot saskarsmi ar skolēniem, novērojot savas domas, emocijas, rīcību
		37	10%	Pārņem vienotības izjūta ar citiem
		36	10%	Iegūtas zināšanas, prasmes, kā veiksmīgāk sakārtot domas, pašregulēt darbības rīcību
		31	9%	Novēro savu saskarsmi ar citiem
		28	8%	Piedzīvo miera izjūtu sevī
		25	7%	Notiek dzīves enerģijas atjaunošanās
		17	5%	Stiprina savas darbības pašregulācijas prasmes
		14	4%	Iepazīstot sevi, stiprinās pārliecība par vērtībām, dzīves jēgu

Apkopojot pedagogu atbildes par jautājumu (1. tab.) – “Kā pašizziņa sekmē skolotāja personības izaugsmi?”, redzams, ka pedagogi visvairāk ir norādījuši uz tādām kvalitātēm kā “empātija” (28%) un “attieksme”(21 %), kas norāda, ka gandrīz pusei (49%) no pētījuma dalībniekiem ir izpratne un pārlicība, ka skolotājs ar attieksmi pats pret sevi ietekmē arī citu attieksmi pret sevi, motivē skolēnus pozitīvai rīcībai pret sevi un citiem. Empātijas un attieksmes nozīmību ceļā uz personības izaugsmi, ko var pilnveidot pašizziņas procesā (Rutka, 2008a; Dispenza, 2016; Plotkins, 2020), ir novērtējuši ne tikai aptaujātie pedagogi, bet arī pasaulē redzami zinātnieki (Abram, 1996; Jungs, 2001; Kellijs, 2012; Dispenza, 2015). Vēl kā būtisku faktoru personības izaugsmē skolotāji atzīst tādu kvalitāti kā “uzdrīkstēšanās” (15%). Uzdrīkstēšanās ļauj piedzīvot jaunas izvēles un gūt jaunus pieredzējumus pedagoģiskajā darbībā, kas paaugstina arī skolotāja pašapziņu (Scribner, Sawyer, Watson, & Myers, 2007; Rutka, 2008b). Kā svarīgas personības iezīmes, kas tiek stiprinātas pašizziņas procesā, pētījumā parādījās arī pedagogu izpratne par savām emocijām, spēja un prasme novērot tās un vadīt. Šo domu apstiprina arī cilvēka emocionālās inteliģences pētnieks Daniels Goulmens (Goulmens, 2001). Uz jautājumu – “Kā sevis iepazīšana ar metodi “Iepazīsti sevi!” veicina skolotāja emocionālās atsaucības pilnveidošanos?”, visvairāk (24%) ir to dalībnieku, kuri norāda, ka “sevis iepazīšana no dažādiem aspektiem, maina domas par sevi”. Arī medicīnas zinātņu doktors Džo Dispenza pauž domu, ka, paturot redzeslokā jautājumus - ”Kā jūs vēlaties domāt par sevi un dzīvi, kā uztvert notiekošo? Kā tas liks jums justies?”- cilvēks var izmainīt attieksmi pret sevi, pilnveidot emocionālo atsaucību (Dispenza, 2015). Savukārt (12%) aptaujāto piedzīvoja, ka tiek, ”gūts pieredzējums, ka pozitīvās emocijās balstīta saruna stiprina” un “rodas idejas, kā var uzlabot sadarbību ar skolēniem, regulāri novērojot savas domas, jūtas, rīcību” (11%). Šādu atbilžu pārsvars norāda uz to, ka pedagogi saskata mījsakarības starp pašizziņu un darbībām pedagoģiskajā procesā. Jo vairāk cilvēks ir veselumā ar sevi, jo prasmīgāk var pieņemt jaunus rīcības un darbības modeļus saskarsmē ar citiem. To parāda gan sniegtās pedagogu atbildes kopumā, gan novērojumi, kā pozitīvās emocijās balstītas sarunas ļauj skolotājam saskatīt jaunus risinājumus pedagoģiskajai darbībai, sasaistot teoriju ar iegūto pieredzi mācību procesā. Arī literatūras studijas un to izvērtējums ļauj apgalvot, ka pieredzē balstītas atklāsmes un jaunas zināšanas par sevi, ļauj cilvēkam būt tādām, kāds grib būt (Jungs, 1994; Cozolino, 2002; Rutka, 2012; Vilbers, 2013; Dispenza, 2015, 2016; Jeon, Hur, & Buettner, 2016; Plotkins, 2020).

Aptaujas dalībniekiem bija iespēja atbildēt arī uz trešo aptaujas jautājumu “Vai autores piedāvātā metode un metodiskais līdzeklis “Iepazīsti sevi!” palīdz sakārtot un strukturēt domas, izprast sevi un vadīt emocijas?”. Dalībnieki izteica vērtējumu 5 ballu skalā (pēc Likerta skalas). Tika iegūti šādi rezultāti: 305 pedagogi jeb 86% no aptaujātajiem deva novērtējumu skalā ar vērtējumu

5 balles; 46 pedagogi jeb 13% no aptaujātajiem deva novērtējumu skalā ar vērtējumu 4 balles un tikai 5 pedagogi jeb 1% no aptaujātajiem deva vērtējumu skalā ar atzīmi 3 balles. Vērtējums ar atzīmi 2 balles un 1 balle vispār netika konstatēts. Iegūtie rezultāti apliecina, ka piedāvātā pašizziņas metode un metodiskais līdzeklis “Iepazīsti sevi!” palīdz cilvēkiem sakārtot un strukturēt domas. Novērojot savas domas, emocijas, runājot par dažādiem sevis izzinošiem jautājumiem, reflektējot ar citiem par procesā piedzīvoto un sniedzot atgriezenisko saiti sev, cilvēks piedzīvo izpratni par sevi, savu patību, gūst jaunus domāšanas un darbības rīcības modeļus. To apstiprina arī pētnieku atziņas (Jungs, 1994; Vilbers, 2013; Dispenza, 2016; Plotkins, 2020).

Pētījumā apstiprinājās fakts, uz kuru ir norādījis Džo Dispenza, ka paaugstinot apziņas līmeni, cilvēks vairāk pamana, labāk pamanot, spēj veiksmīgāk novērot sevi un citus. Tādējādi vērsot uzmanību gan iekšējai, gan ārējai realitātei (Dispenza, 2015, 2016). Caur sevis apzināšanu skolotāji var apzināti kontrolēt savas domas, lai apziņai nepaiet garām neviena doma, rīcības, emocijas. Tā ir iespēja izvairīties no situācijām, ko pats nevēlas piedzīvot pedagoģiskajā procesā. Attīstot prasmi iepazīt savas patības aspektus, skolotāji kļūst apzinātāki, atbrīvo enerģiju jaunas dzīves un personības radīšanai, gūstot citus pieredzējumus saskarsmē (Rutka, 2008a, 2012; Dispenza, 2015, 2016; Plotkins, 2020). Skolotāji, daloties iegūtajā pieredzē darbā ar metodi “Iepazīsti sevi!” atzīst, ka caur piedāvātajām procesuālajām darbībām, saņemot no mācību procesa vadītāja emocionālu atbalstu iekšējo barjeru pārvarēšanā, mācību procesā piedzīvojot labvēlīgu attieksmi, labāk izprot savu rīcību saskarsmē ar citiem, rodas iedvesma pašam strādāt ar savas personības izaugsmi. Tiek piedzīvota pašanalīze, kāds es esmu pret sevi un citiem. Sniedzot atgriezenisko saiti par pieredzēto, pedagogi nonāk pie atziņas, ka ar attieksmi pret sevi rada izmaiņas arī skolēnu darbībā. Šo atziņu apstiprina arī pētījumi (Deal, Altman, & Rogelberg, 2010; Serdiouk, Wilson, Gest, & Berry, 2019). Izmantojot iegūtās zināšanas par sevi, atpazīstot spēka resursus, spēj prognozēt savu rīcību, sakārtot domas, tādējādi var izvēlēties tos rīcības un darbības modeļus, kas paša iekšējai būtībai ir daudz patīkamāki. Sevis iepazīšana caur domām, jūtām un darbības novērošanu, paaugstina arī skolotāju pašapziņu (Rutka, 2008b; Vilbers, 2013). Caur sevi tiek gūta vērtīga pieredze, kā un kāpēc pašizziņu ir būtiski ietvert mācību procesā. Kā atzīst psiholoģijas zinātņu doktore Lūcija Rutka, pedagogs mācās visu mūžu un ar laiku atzīst, ka līdztekus augstam intelektam vēl vajadzīgs kaut kas īpašs – spēja izjust, pieņemt, priecāties, būt brīvam, kas zināšanām piešķir jēgu, bet darbam – aizrautību un vieglumu (Rutka, 2012). Veiktajā pētījumā šo atziņu apstiprināja arī skolotāji, kuriem darba pieredze pedagoģijā ir vairāk kā 25 gadi.

Izteiktās autoru (Damasio, 2000; Cozolino, 2002; Vilbers, 2013; Korb, 2015; Dispenza, 2015, 2016; Plotkins, 2020) atziņas un skolotāju darbības novērošana pašizziņas procesa laikā, reflektēšana par iegūto pieredzi apstiprina domu, ka, diviem cilvēkiem regulāri esot patiesā emocionālā saistībā, viņu attiecīgajās smadzeņu daļās notiek izmaiņas. Padziļinoties sinhronizētajām attiecībām, katram no viņiem veidojas jauni neironu tīkli, it sevišķi jūtu un iztēles apvidos, kā arī dziļajā struktūrā. Mūsu smadzenes, pietuvojoties citu prātiem, burtiski “aug”. Tas ir vēl viens apliecinājums, kā skolotāja attieksme ietekmē arī skolēnu darbības izvēles dažādās situācijās, un cik svarīga ir empātiska uzticēšanās, skolotāja emocionālā atsaucība attiecību izveidošanā un uzturēšanā.

Secinājumi **Conclusions**

Pētījuma rezultāti apliecina, ka teorētiķu (Jungs, 1994; Goulmens, 2001; Dispenza, 2015, 2016; Vilbers, 2010, 2013; Rutka, 2012; Spadaro, 2018; Plotkins, 2020) izteiktās domas par pašizziņas nozīmību personības izaugsmē praksē darbojas. Autores veiktais pētījums 29 pedagogu grupās un ilggadīga, regulāra pieredze mūžizglītībā ļauj secināt, ka pašizziņa ir nozīmīgs faktors skolotāju personības izaugsmē. Tā arī ir iespēja, kā mūžizglītībā var veicināt pedagogu emocionālās atsaucības pilnveidošanos.

Atbildot uz pētījuma pirmo jautājumu - “Kā pašizziņa sekmē personības izaugsmi?”, pēc iegūtajiem pētījuma datiem secināts, ka visvairāk pedagogi norāda, ka tiek palielināta empātija pret citiem, piedzīvotas atklāsmes, kā attieksme ietekmē domāšanu un rīcību, iegūtās zināšanas par sevi ļauj uzdrīkstēties, darbībā tiek apgūtas zināšanas un prasmes, kā izprast, novērot un vadīt savas emocijas. Pasaulē pazīstami pētnieki (Jungs, 1994; 2001; Vilbers, 2010, 2013; Dispenza, 2015, 2016; Plotkins, 2020) atzīst, ka tie ir resursi, ar kuriem var izmainīt savas domāšanas, rīcības un darbības modeļus.

Atbildot uz pētījuma otro jautājumu – “Kā sevis iepazīšana ar metodi “Iepazīsti sevi!” veicina skolotāja emocionālās atsaucības pilnveidošanos?” iegūtie dati ļauj secināt, ka, iepazīstot sevi no dažādiem aspektiem, cilvēkam mainās domas par sevi, tiek piedzīvots, ka pozitīvās emocijās balstītas sarunas iekšēji stiprina, skolotājiem rodas idejas, kā uzlabot saskarsmi ar skolēniem, pārņemt vienotības izjūta ar citiem.

Autores izstrādātā metode un metodiskais līdzeklis “Iepazīsti sevi!”, kā atzīst aptaujātie dalībnieki, skolotājiem palīdz sakārtot un strukturēt domas, izprast sevi un vadīt emocijas. Par to, ka metode darbojas, apliecina arī pedagogu atzinīgais novērtējums.

Iegūtās atbildes un pedagogu darbības novērošana, literatūras izvērtējums apstiprina domu, ja ego uztver realitāti caur patību – domām, jūtām un darbību, tad instinktīvi tiek atpazītas un godātas attiecības ar citiem cilvēkiem, lietām, dabu, ar izpratni tiek pieņemti notikumi. Un tas ir īpaši nozīmīgi skolotāja personības izaugsmē.

Strādājot ar skolotāju grupām tika novērots, ka pedagogu profesionālās kompetences pilnveides kursos skolotājs, piedzīvojot sekundārās darbības pašpieredzi, kas notiek caur pašizziņu situatīvā darbībā, piedzīvo atbalstu un iegūst pieredzi, zināšanas emocionālās atsaucības pilnveidošanai pedagoģiskajā darbībā.

Pēc veiktā pētījuma un autores plašās pieredzes, vadot pedagogu profesionālās kompetences pilnveides kursus, var pamatoti teikt, ka mūžizglītībā būtiski ir iekļaut pašizziņas jautājumus, kas ietver jaunākos atklājumus un atziņas neirozinātnē un psiholoģijā.

Summary

This article provides an insight into the importance of self-knowledge for improving teachers' emotional responsiveness in lifelong learning. The aim of the study was to show the importance of self-knowledge for improving teachers' emotional responsiveness in lifelong learning, using the method "Get to know yourself!" developed by the author. The chosen research methods were literature studies, survey, and observation.

By evaluating the literature sources (Jung, 1994; Goleman, 2001; Dispenza, 2015, 2016; Wilber, 2010, 2013; Rutka, 2012; Spadaro, 2018; Plotkin, 2020) and by regularly working with groups of teachers, connections on how self-knowledge affects personal growth were sought and found. Participants of the study acknowledge that the method "Get to know yourself!" can successfully be used as a self-knowledge resource in lifelong educations. Teachers recognize that this method also helps to organize and structure thoughts, understand oneself and manage emotions. The method has been approbated in 29 educational institutions, including 9 secondary schools and 20 primary schools. A total of 356 educators were involved in the study.

According to the obtained research data, it is concluded that through the process of self-knowledge, teachers increase empathy towards others, revelations are made about how attitude affects thinking and actions, and the knowledge gained about oneself allows the teacher to be more daring. Through the procedural activity, knowledge and skills on how to understand, observe and manage one's emotions are acquired. World-renowned researchers (Jung, 1994, 2001; Wilber, 2010, 2013; Dispenza, 2015, 2016; Plotkin, 2020) also acknowledge that these are resources that can change one's thinking, behavior, and action patterns. When working with groups of teachers, it was observed that by taking part in the courses for improving teachers' professional competence, the educators experience support and gain experience and knowledge which benefits the improvement of emotional responsiveness in pedagogical activities. This is achieved by gaining the self-experience of secondary activity which occurs through self-knowledge in a situational activity.

The conclusions of the study support the idea that including the latest research and findings from neuroscience and psychology has an important role in lifelong learning.

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THE CONCEPT OF AN IDEAL PERSON IN WORKS OF ARISTOTLE

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***Abstract.** The issue of a human person, and his/her development, and particularly in connection with a social sphere is extremely relevant for our times. In psychology, this issue has been developed through developmental periods, theories of personality identity and conditions that contribute to a self-actualization of an individual. In this regard, interest is how these ideas evolved in the process of cultural and historical development of humankind, how they were understood by previous generations of scientists and philosophers, how theoretical views of past generations are interpreted by the researchers of our time. This determined the objectives of this research. The authors applied the method of content analysis of the text with the aim to discover the concept of an ideal, or perfect person in works of Aristotle, to compare this concept with the corresponding views of Plato, to determine the influence of Aristotle's concept of an ideal person on modern theories of personality. The research method is a content analysis of works of Aristotle and research done by the authors that reflect a philosophical heritage of the Greek thinker. As for both, Plato and Aristotle, the soul is the basis of life and the source of human activity. For Plato the soul appears to be an indivisible and immortal entity, then for Aristotle it has its own structure. Human soul is capable of development and improvement. The main condition for improvement, according to Plato, are correct actions of a person from the point of view of law and public opinion. Aristotle believes that in this process, education and upbringing plays major attention. Aristotle's ideas today are being developed in a deep and humanistic psychology and developmental psychology.*

***Keywords:** Aristotle, Plato, soul, an ideal (perfect) person.*

Introduction and Research Methodology

The issue of a person and his/her development in connections with the social environment is extremely relevant for our time. In psychology, this issue has been developed through the developmental periods, theories of identity and conditions that contribute to a self-actualization of an individual. In this regard, interest arises how these ideas evolved in the process of cultural and historical development of a humankind, how they were understood by previous

generations of scientists and philosophers, how theoretical views of past are interpreted by the researchers of our time.

The authors have repeatedly addressed this issue in previous research. Previous articles presented the results of the analysis of the works of the ancient Greek philosopher Plato, as well as the Byzantine philosophers - theologians. The main issue in these works was the question of a soul. All authors adhere to the idea that the soul is the source of human vital activity. The question of the origin and time of existence of the soul is debatable.

Plato reflects on two types of time: personal and mythological. Personal time coincides with the life time of a person. This is where the professional development of the individual takes place, or, when a professional identity is formed.

The formation of personal perfection (personal identity) is associated with a mythological time. This is due to two reasons. First, souls exist in a special, non-material world and enter the human body at the moment of his/her birth. At the moment of appearance in a human body, they already have the experience of past lives. This experience can be positive or negative. By the actions that one performs in one's life, a person can correct this experience both for better and for worse. Thus, personal identity depends on the life experience of previous generations to a large extent, and only partially on the efforts of the individual himself/herself.

Secondly, there is a genealogical history of souls. Souls originating from mythological gods - creatures perfect in nature - determine the characteristics of the behavior of great and noble people. Therefore, the existence of these souls can be called mythological (Makarevičs, 2012).

With the adoption of Christianity, Plato's idea of the connection between the process of human perfection and mythological time came into conflict with the principle of monotheism. The Byzantine thinker Gregory of Nyssa tried to resolve this contradiction. According to his views, the soul appears simultaneously with the body and does not have the experience of past lives. The human soul, according to Gregory of Nyssa, like Plato, is immortal. The souls of physically dead people make up the Pleroma, or the World Soul, what has a transpersonal character. The welfare of the immortal soul must be taken care of during life. This is ensured by the human striving for perfection, for God.

The main difference between the views of Gregory of Nyssa and Plato's views on the existential foundations of the existence of the soul is, therefore relates to fact that Platonic souls owe their initial perfection for many Greek gods. The subsequent generations may lose their perfect qualities. According to Nyssa, the soul appears in the body of a newborn at the same time of one's birth. The goal of a person's life is to actualize what is in him/her from God (Makarevičs, 2017a).

In works of Byzantine philosophers-theologians, we can learn more and more about subjectivity, development of a person by his/her own efforts (Makarevičs, 2017b). Aristotle's works were created in a time continuum between Plato and Byzantine thinkers. This determined the objectives of this research that are the following:

To explore the concept of a perfect person (the best people, as defined by the Aristotle).

1. To identify social and psychological conditions conducive to the emergence of perfect people in the society.
2. Compare Aristotle's concept of a perfect person with the corresponding concept of Plato's works.
3. To explore which ideas of Aristotle are used in modern psychology of personality.

Research method used are: the content analysis of Aristotle and other authors' works.

Aristotle's Concept of the Soul

Ancient, Byzantine and medieval concepts of a person were based on the concept of the soul. Unlike Plato, the Aristotelian soul has no past. It is born simultaneously with the birth of a human child. The soul has several levels of manifestation: vegetable (responsible for physiological phenomena), animal (including a variety of psychological processes and personality traits, manifested in direct behavior) and reasonable level. The goal-setting activity of a person is provided by the highest, reasonable level of the soul (Aristotle, 1976).

Aristotle, unlike Plato, clearly structures the essential composition of the soul. If we compare the Aristotelian description of the structure of the human soul and the current ideas about the structure of mental phenomena, we can see an amazing similarity with the understanding of the structure of the inner world, which is accepted in modern psychology.

According to these ideas, the inner world, in particular, is represented by mental processes: sensation, perception, memory, thinking, imagination, emotions and feelings. The Aristotelian interpretation of the soul appears simultaneously with the birth of a person and does not have a mythological or phylogenetic past. These processes in their embryonic state appear already in the prenatal period, but they develop during person's life.

The soul is endowed with the ability to self-development. This ability is called entelechy. Entelechy manifests itself at the lower structural levels of the soul - plant and animal and does not contribute to the emergence of a perfect person. Only an intelligent part of the soul, endowed with the ability of self-development, can provide the conditions for the emergence of a perfect person.

Reasonable part of the soul is the most difficult part for understanding of the essence of the whole integral soul in the interpretation of Aristotle. Unlike the first two levels, which appear simultaneously with the birth of a person, the third is a gift to a person from Higher Powers. This is a gift from Gods. In this part of the soul that is responsible for the emergent consciousness of a person, for the ability to make choices and the manifestation of volitional behavior to achieve the goals of life (Aristotle, 1976). As Rudneva notes, by Aristotle the mind is understood as the meaning and essence of the cosmos, in which a person is an inseparable part (Rudneva, 2007).

In his concept of the soul, Aristotele partially adheres to the views of his teacher, Plato. Brandon Look and several other scientists have noted, that the intelligence is immaterial or does not mix with the body. This allows to compromise Aristotle with Platonism (Look, 2007).

The age of the vegetable and animal parts of the soul is finite and is limited by the lifetime of the subject. The rational part of the soul has its own history, different from the subject, and it is immortal. According to Johansen, a researcher from Brasenose College (Oxford), this immortal active intelligence is the main component of the human soul, since it ensures the development of the individual on the path towards perfection (Johansen, 2012).

Ideal Person as the Highest Level of Identity Development

The foundations of the concept of an ideal person are set forth by Aristotle in his *Nicomachean Ethics*. Each person has his/her own purpose in life. Nevertheless, a person can consciously and voluntarily change his/her purpose, but not everyone is capable of this.

Every person, according to Aristotle, faces a choice of life path. Or, according to Aristotle, a way of life. Hedonistic, state or contemplative. the choice of the latter two is associated with virtues. The main virtue follows the other principle that means that in your actions, manifestations of feelings, decision-making, you should choose the middle option.

So, in the triad: cowardice - courage - recklessness, a perfect person has courage, and for recklessness is not associated with the reason given to man by God. The highest goal of life is happiness.

In the process of a formation of a person, his/her achievement of the highest goal is impossible without the influence of society, where the main factors are appropriate education and social ties (friendship) (Aristotle, 1997).

The analyses of the relationship between the individual and the personal in Aristotle's concept of a person, according to the philosopher Russell implies that individuality is determined by the characteristics of the irrational soul (including plant and animal parts). The personality of an individual is associated with the

rational part of a soul. The irrationality divides people. The rational part of the soul serves as the basis for unification. The rational part of the soul contributes approaching God. This is facilitated by worthy actions and creativity of the individual. Individuality disappears with the death of a person. The person dissolves into the divine and thus becomes immortal.An ideal person is a person who is dissolved in the divine and, therefore, does not exist as a person (Russell, 1994). These ideas of Aristotle are illustrated by the words of A.S. Pushkin:

No, all of me will not die. Soul in the cherished lyre,
My ashes will survive (Pushkin, 1836).

The greatest virtue is only possible for the few. As J. Dudley notes, the requirement of a fulfilled life implies a holistic development of a person and the achievement of perfection, or completeness. An indicator of the correctness of the chosen life path makes the experience of happiness. But happiness, according to Aristotle, is not the goal of life. It is a kind of barometer that measures the degree of success (intermediate to goal achievement).

Aristotle draws a parallel between the life of God and the ideal life of a person. The basis is intelligence, since the nature of God relates to intelligence (Dudley, 2017).

But about what kind of God does Aristotle write about? Is it the God who lived in the era of polytheism? M. Mamardashvili tried to solve this riddle. He wrote: *“This is the idea of infinity. Let us imagine a more concrete image, without which, the ancient Greeks dispensed with in such cases, since they were not Christians. Let's call this infinity God ... And our ability to think about it is the manifestation of God in us”* (Mamardashvili, 1997, 140).

In earthly life, the ideal person is an individual who is proud, does not belittle his dignity, and despises anyone who is truly worthy of contempt (1124b). B. Russell, comments on this thought of Aristotle, by explaining that Aristotle's description of a proud and generous person is very interesting, as it covers the meaning in which Nietzsche's view of Christianity as a slave is justified.

The Christian ethics disapproves the notion of pride, which Aristotle considers a virtue, and praises the humility in which Aristotle sees a vice (Russell, 1994, 177-179).

The special role of ideal people is associated with the state and politics. The stability of the state depends on the quality of government and the policy it pursues. As A. Lonin notes, the main feature of “ideal people” is the presence of their political voices (Lonin, 2010). But can everyone participate in the governance of the State? Among the capable individuals of governance, Aristotle excludes slaves. He also excludes women, since men have power over them. Therefore, they are dependent on others. Only free people are suitable for

the governance and political life (Aristotle, 2011). And here one more question to be asked: is every free person capable of performing a function in the government?

According to Aristotle, a person inherits the experience of past generations (as an intelligent part of the soul). But this experience needs to be developed and actively applied in virtue-oriented behavior. In this regard, it is interesting to refer to V. Sukhachev. He wrote that the term *arete* is traditionally translated as virtue. *Arete* can also be translated as the ability to own one's life, one's thinking, and actions (Sukhachev, 2017).

Thus, following the virtues in one's actions, contributes to the development of subjectivity, - the ability of the individual to determine and plan his/her own life. But this development of subjectivity is possible only with an appropriately organized education and upbringing of the younger generation. At the same time, an extremely important role in the upbringing of "ideal people" belongs to a woman. Ann Ward, via the analyses of the role of the mother in the upbringing of "ideal people" in the work of Aristotle's *Nicomachean Ethics*, notes about a special role of friendship in the social relations of such people. The first lessons of selfless friendship are gained in the early childhood in the process of communication with the mother (Ward, 2008).

Influence of Aristotle's Ideas on Subsequent Concepts of the Ideal Person

As L. Tonoyan wrote, Aristotle's concept of an ideal person was not popular in Antiquity, but had a significant impact on the development of ideas about a person in the Middle Ages (including the views of Byzantium theologians) (Tonoyan, 2017).

We can trace the development of his ideas in humanistic psychology. Contemporary depth psychology includes classical psychoanalysis, Jung's analytical psychology, Adler's individual psychology, and contemporary trends (such as Hillman's archetypal psychology). Depth psychology examines the processes occurring in the sphere of the unconscious and their influence on human behavior and thinking.

As for the depth psychology, we can see the development of Aristotle's ideas in works of Adler and Jung. Adler believes that a sense of community is essential for the holistic development of a person.

It is innate and allows a person to engage in positive social relationships, to act for the benefit of other people, to help, and not to manipulate them. A person can lose a sense of community as a result of improper upbringing. Thus, the preservation of this feeling depends entirely on the relationship that develops between the child and the mother in the first years of his/her life. But the sense of community in Adler's understanding is nothing more than the concept of

friendship by Aristotle and the influence of the first years of a child's life for the acquisition and strengthening of this ability (Adler, 1997).

Further, for the analyses of works of Aristotle, Litvinova wrote: if a man wants to be captivating, he must borrow grace and tenderness from women, and if a woman wants to win hearts, she must have a certain amount of courage (Litvinova, 2016). In other words, here we see two principles of life: male and female. In this case, the masculine principle should be balanced by the feminine, and the feminine -by masculine. We find the development of these ideas in Jung's concept of the Anima and the Animus (Feydimen & Freiger, 1994).

The idea of *entelechy*, or the soul's capacity for self-development, underlies Maslow's understanding of the phenomenon of self-actualization. Maslow is one of the founders of humanistic psychology. Self-actualization is the desire of a person to maximize his/her abilities and a creative potential in life. The need for self-actualization, according to Maslow, is the highest level in the hierarchy of human needs. As the author refers, at the moment of self-actualization, the individual is wholly and completely human. This is the moment when One realizes oneself (Maslow, 1967). So Maslov, in his characterization of the "best" people, following Aristotle, attaches decisive importance in their formation *to entelechy*, or the ability of the soul for a self-development.

Discussion and Conclusions

The authors present a comparison of concepts of the ideal person in Plato and Aristotle. Since "ideality" in one and the other concept is a special ability of the soul, the authors carries out a comparative analysis of these abilities, as well as the personal qualities of a person produced by these abilities. The authors used the same comparative scheme that they used when they carried out a comparative analysis based on the works of Plato and the Byzantine Gregory of Nyssa (Makarevičs, 2017a) that is reflected in Table 1.

To summarize, for both, Plato and Aristotle, the soul is the basis of life and the source of human activity. For Plato the soul is an indivisible and immortal immaterial entity, but for Aristotle it has its own structure. Moreover, only the highest part of it - the intelligent - has immortality.

The human soul is capable of development and improvement. The main condition for improvement, according to Plato, is correct, from the point of view of law and public opinion, the actions of the person himself. Paying tribute to the activity of a person, Aristotle believes that teaching and upbringing, relations with the mother in early childhood, play an important role in this process. In what both authors are unanimous, it is that the approach to the ideal traits of a person.

Table 1 *Comparative Analysis of the Abilities of the Soul and the Characteristics of Ideal ("best") People Produced by These Abilities in Plato and Aristotle*

Criterion	Plato	Aristotle
Social - historical conditions for the creation of the concept	Paganism (Polytheism)	Paganism (Polytheism; but in his works Aristotle uses the name of God in singular)
Functions of the soul	Determines the activity of a person, serves as the basis for his/her improvement	Determines the activity of a person, serves as the basis for his/her improvement.
Temporal characteristics of the soul	At the moment of embodiment in the human body, the soul already has the experience of past lives	The soul has a complex structure and consists of three substructures. The first two appear at the moment when the body is born and disappear with the death of the body. The third, sentient, is timeless and immortal.
"Start up" conditions for the development	Start up conditions are not similar for all people. They depend on the past experiences of the soul.	Not the same. Depends on the origin and gender of the person.
The dependence of the content of the soul on human actions	Immediate	Mediated by the training, upbringing and experience of the first years of life, an ability called <i>entelechy</i> .
The work of a person with his/her own soul with the aim to improve	Discrete	Discrete, but only applicable to the reasonable part of it.
The connection between a person and a society	The stability of the State depends on the extent to which its rulers are able to follow the principle of good.	The stability of the state depends on how its elite meets the criteria of "ideal people"
Personal development and development of a personality	Personal improvement negates individuality. At the end point of development, individuality disappears.	Personal improvement negates individuality. But individuality is preserved as a difference in the character, abilities and manifestations of the lower levels of the soul (animal as anatomy of the body)

Aristotle's ideas were developed in many modern psychological concepts. The idea of *entelechy* is in the concept of a self-actualizing person used by Abraham Maslow. The idea of the presence of masculine and feminine

principles in a person's personality is in the concept of Anima and Animus is used by Carl Jung. The idea of the importance of the relationship between the child and the mother for further personal development and the acquisition of identity is used in various periods of human development.

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BUILDING THE COMMUNICATIVE CULTURE OF MP'S TEAMS AND THE COMMUNITIES

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Abstract. *The article studies the issue of establishment of efficient and sustainable communication between a community and an MP and his/her team. Based on the results of focus group discussions, the authors determine and describe the main problems and gaps that exist in parliamentary education of the general public as well as MPs and their teams and outlines the competences and tools necessary for making this communication efficient and mutually beneficial. The aim of the research is to determine the content and methods of the communicative component of parliamentary education for communities and MP's teams. The methods used include focus group research (to collect the data regarding the mood, views and attitudes of the public and the MPs and their teams); information analysis and synthesis (to structure the collected data and draw conclusions from it). The study showed a considerable lack on behalf of the public to participate in building the communication, a high level of incompetence on both sides that derives from the lack of systemic parliamentary education and the need to systemically use the same communication channels in order to ensure effective and sustainable interaction of the public with the elected officials.*

Keywords: *communication, community, community participation, MP's team, parliamentary education, sustainable interaction.*

Introduction

Life-long learning is a unique tool that makes it possible to change and develop certain values and attitudes in a society. This becomes especially

relevant when we speak about civil society development and community capacity building. A separate part of both are the operational principles of a representative democracy, namely, the role of an MP in the community that elected him/her as well as the communication model that was built by the stated communities, the people's deputies (MPs) and their teams.

During the pre-electoral period, candidates running for the office campaign rigorously in order to gain popular support. But after the new parliament is formed, the level of popular trust to the highest representative body decreases rapidly. Even the current Verkhovna Rada of the 8th convocation, which had an unprecedented credit of trust at the time it was elected, has rapidly lost citizen support. According to the surveys conducted by the Razumkov Centre, which is one of the most powerful and trusted centre of sociological studies, on September 17, 2019, the total of 25.1% of respondents "absolutely do not trust" and "do not really trust" the Verkhovna Rada. A similar survey conducted in February 2020 showed a 65% level of distrust to the Verkhovna Rada of Ukraine and according to the survey conducted in October-November 2020 this figure reached a total of 76.1%. As for the parliament of the previous convocation, the level of citizen distrust was 81.6% (Razumkov Centr) at the end of the term of service (data published on March 27, 2019).

After the parliamentary elections, the link between the deputy and the community is becoming weaker. As a result, the population does not perceive a people's deputy as a representative of their interests, a person you can and should work with, but rather starts perceiving him/her as a "stranger" who cannot be trusted. In fact, the first reason for the loss of trust is the lack of effective communication between a deputy and his/her team and the community (voters). Thus, the necessity arises to review and determine the content of parliamentary education both for the public and for the deputies and their teams.

The aim of our research is to determine the content and methods of the communicative component of parliamentary education for communities and MP's teams.

To achieve the declared aim, we used such methods as focus group research (to collect the data regarding the mood, views and attitudes of the public and the MPs and their teams); analysis and synthesis of information (to structure the collected data and draw conclusions from it).

Literature Review

The interaction of members of parliament with the communities is reviewed and analysed in studies on political PR and electoral techniques. The book of Darren G. Lilleker (Lilleker, 2006) may be considered the

encyclopaedia of political PR concepts as it contains a systemic description of key concepts, theories and types of activities related to political communication. The development and functioning of political PR in Ukraine was studied by Larysa Kochubey (Kochubej, 2013).

Parliamentary education has not been studied as a separate scientific problem. It is most often linked with civic education and political education and the greatest focus is made on the academic (primarily school and university) audience (Tereshchuk, 2020; Iskhakova, 2011; United Nations Development Programme, 2013). Thus, the fact that the establishment of sustainable communication between the community and the MPs' teams requires, firstly, the involvement of citizens of various age groups (even those who are not open to the idea of life-long learning or mastering new knowledge about parliamentarianism and civil society functioning) and secondly, a clear correlation of the content of parliamentary education for communities and of the training curricula for MP's team members, is primarily left out.

Methodology

The materials of the "Sustainable Interaction of Communities with the Teams of People's Deputies of Ukraine" project formed the basis for this article. The project was implemented during January-May 2020 by the "Vinnychchyna Euroclub Association" NGO within the framework of the USAID Programme "RADA: Responsible Accountable Democratic Assembly", implemented by the East Europe Foundation. The authors of this research were involved in the implementation of the project as team members and experts.

The research was conducted on the territory of the Vinnytsia oblast (Ukraine) and covered eight parliamentary majoritarian single-mandate constituencies. The teams of all MPs elected from the Vinnytsia oblast in majoritarian single-mandate constituencies and of two deputies elected through party lists were involved in the project. By the results of the project, a practical handbook was published. It provides a toolkit for cooperation of communities with the teams of people's deputies of the Verkhovna Rada of Ukraine, and is aimed to help the deputies make informed and effective decisions based on constant interaction with the voters (Neprytskyi et al., 2020).

In this article, we will use the results of seven conducted focus-groups, which aimed to study the existing state of communication between the communities and MP's teams, and to determine what can be done in order to make this communication more efficient. At the first stage, group discussions with the representatives of the public were held, the second stage was the discussion of the stated topic with representatives of MP's teams. And the third

(final) stage was to discuss the received ideas in a mixed group in order to determine realistic ways of improving communication between the communities and MP's teams.

Three focus groups were held with the representatives of the public (in the Kryzhopil, Zhmerynka and Kalynivka rayons of the Vinnytsia oblast). The selected sampling was supposed to maximum reflect the social and age portrait of the communities – 4 pensioners, 1 entrepreneur, 2 hired professionals working for private businesses, 2 hired professionals working in state owned institutions, 1 public servant, 1 student, 1 unemployed. The age distribution of the participants was the following: 3 people aged 18-35, 6 people aged 35-65, 3 people of the 65+ age group. Three focus-groups were held with representatives of MP's teams (assistant-consultants and advisors) and the last (seventh) focus group was mixed. The total of 79 people took part in these seven focus groups (from 10 to 12 people in each). The participants did not receive any payment for participating in the discussion, thus being free to speak their mind. The conducted focus groups were videoed (with the permission of the participants, for the purpose of future analysis) and afterwards a qualitative and quantitative expert analysis of the material was carried out.

Research Results

Table 1 Understanding of the Functions and Obligations of a People's Deputy by Community Representatives

Age of respondents	Functions and obligations (number of times mentioned during focus group discussions)						Total
	Give out financial support	Influence the bodies of executive power	Influence the courts	Create road and transport infrastructure	Control and hold back price growth	Influence the raise of pensions and salaries	
18-35	2	2	5	3	4	2	18
35-65	5	6	3	3	2	5	24
65+	5	5	3	4	7	6	30
Total	12	13	11	10	13	13	72

The study of the state of communication between the communities and teams of people's deputies of Ukraine showed that citizens often have a distorted understanding of the role, functions and obligations of a people's deputy. As a result, they have unreasonable expectations from his/her activity, which absolutely do not correspond with the provisions of the Law of Ukraine

“On the Status of a People’s Deputy of Ukraine” (Zakon Ukrayiny, 1993). We selected functions and obligations of a people’s deputy, which are not foreseen by the legislation, but were most often (more than 10 times) repeated by the participants of focus group discussions with representatives of the public (see Table 1).

As we can see, all the functions and obligations of MPs that were most often mentioned by the participants, do not concern the implementation of the law-making or representative function of a member of parliaments, but are rather limited provision of social needs on the citizens. The people theoretically agree that law-making is the main function of a people’s deputy. But in practice, his/her activity is narrowed down to solving urgent, mostly socioeconomic, problems of the residents of a constituency. In the opinion of participants of focus-groups and training sessions that we had conducted within the framework of the project, a people’s deputy should interfere in all the projects at the local level, has to a “supervisor” of local self-government bodies and an “overseer” of the executive power bodies.

Parliamentary education is of utmost significance for establishing effective communication and sustainable interaction between the communities and people’s deputies. In other case, the electoral professionalism (Lilleker, 2006) in the work of political managers will be limited to pure attempts to manipulate the communities.

During the electoral campaign intense communication takes place, and after the elections, people expect the continuation of communication with the people’s deputy. The most widespread mistake is the stop of constant communication with the residents of the constituency. As a result, the deputy loses the trust of the voters. People trust those who is “one of theirs”, who they constantly contact with, and the lack of trust is one of the factors, that leads to an “apolitical” community (Iskhakova, 2011) and to an even greater gap between an MP and his electorate.

Thus, it is necessary to continue the communication after the elections using the same tools that were used during the electoral campaign. If communication with the help of these tools led to winning the elections, then it is also bound to be effective in the future.

While deliberating on the issue of communication during focus group discussions, we asked the participants of the study (both the representatives of the public and of MPs’ teams) to describe the communication of the community with the people’s deputy in one word. We heard the following descriptions: ‘not established’, ‘occasional’, ‘non-existent’, chaotic’, ‘fragmentary’ etc. 65% of the participants of focus groups with the public gave generally negative assessment of the communication with the team of their MP. A positive evaluation (which

was primarily characterized with such words as “effective”, “constant”, “open”) was given by 19% of the discussion participants. 16% of the discussion participants either could not say anything about the communication with an MP’s team or avoided giving positive or negative characteristics. The voters speak very warmly about those deputies who keep stable ties with the community. What is more, modern communication technologies (digital media, social media) that help the deputies to actively build the communication with the residents of their constituency through digital media and social media, are well-known and kept in high esteem by voters in other constituencies as well. This factor should be taken into consideration during the next electoral campaign, as it will be held according to the new Electoral Code using the system of proportional representation.

After winning the elections, communication should be transferred into a calmer and more stable mode in comparison with its pace and intensity during the electoral campaign. But it is very important to make this transition gradual, so that the people do not get the feeling that “the deputy vanished”. There were complaints that the people’s deputy had reached his goal of winning the elections and that the community would see him or her next time before the next elections.

The information about a people’s deputy activity, his rights and obligation, the law-making function and the ability of a community to take part in it has to become an important part of forming communicative competences of community representatives.

Talks with community representatives during focus-groups have clearly shown that people want to receive much more information about a people’s deputy and much more often, and they want it so much that they are even ready to give up a part of their rights and freedoms (both theirs as well as the rights and freedoms of a people’s deputy) to ensure maximum transparency in the work of people’s deputies as this, in their opinion, can lead to stability and security. The participants of the conducted studies see future communication in the following way: with the help of their smartphones citizens follow the MP’s working day, who wears a bracelet with a GPS-tracker and goes “live” a few times a day, reporting on his/her activity (Gavrylov et al., 2020). The citizens are ready to invade the personal space of a people’s deputy with the help of various digital tools and, in turn, they are also ready to be more open to cooperation with his/her team.

Indeed, if we try to correlate the assessing comments about a people’s deputy (including the ones coming not from his/her constituency) with the number of posts on social media, we will see that the participants of the studies

give most positive evaluation of those people's deputies who had regularly informed the communities of their activities.

The experts of the project calculated the number of posts on the official Facebook page of the people's deputy who was most often mentioned in the course of focus-group discussions. The received result was 1-3 posts during politically quiet times and 5-7 posts in turbulent times such as the coronavirus pandemic or opening the land market. As for the people's deputies, whose names focus-group participants from their constituency could hardly remember or gave negative characteristics of their activity, the number of posts in social media ranged from once a week to once every few months.

During the discussion of the volume, topics and frequency of posts on social media members of 6 out of 8 teams (which makes up 75%) of MPs representing majoritarian constituencies of the Vinnytsia oblast believed that 1 informational post on social media and congratulations on state and religious holidays are more than enough. In their opinion, 2 and more posts on an MP's page "is an overload that makes people tired".

If the information flow that comes from the people's deputy is filled with the information of the same type that covers a small number of topics, this drastically narrows the audience interested in this MP. At the same time, a wide spectrum of an MP's activity attracts various stakeholders from the community and creates a wide communication field. The citizens want to know what the deputy does in the Verkhovna Rada, which decisions are being approved by the Parliament, what is the position of the MP on the given draft law, why he or she votes in this particular way, what the MP does during his/her visits to the region, how he reacts to cases of law violation etc.

The community wants to hear the report from a people's deputy. In the vision of communities that took part in the study, there is an understanding that a people's deputy must truly "serve" and constantly report about everything he is doing at the moments, what he has already done, how he did that, why he does or does not do something etc.

There are complaints from focus-group participants regarding the communication with an MP concerned the fact that the participation of a people's deputy in various events always follows the same algorithm: if this is an important event that gathers many people together, then the people's deputy arrives, "cuts the ribbon" and makes a speech. The community does not want a speech; the community wants a conversation. So the team that want to establish effective communication of the MP with the community have to take this MP off the stage and make him start a conversation with the community. During the focus group studies we saw a clear differentiation between such concepts as "spoke to us" (made a speech, a report, congratulated on some holiday) and

“talked with us”. 60% of the participants of focus groups with the public stated, that they see this as a problem; 25% of the participants mentioned that they are satisfied with any mode of communication and they are not interested in the work of the deputy as such; 15% don't see the fact that the deputy “spoke to them” and not “talked to them” as a problem. At the same time, at focus groups with representatives of MP's teams it turned out that only 40% of the participants were ready to recognize that such a problem really exists and only 10% of the participants agreed that they have such a problem in their team, the rest of the participants (60%) described this issue as “made-up” and “non-relevant”.

All voters should have equal opportunities for communication with an MP, but the question remains as to how this can be achieved. It is universally acknowledged that a senior citizen that lives in a small village and does not own a smartphone will have fewer opportunities for conveying his thoughts and views to the MP as well as for receiving information from him than a middle-aged clerk of the rayon council who owns a smartphone and has access to good Internet coverage. The study participants noted that not all representatives of all social and gender groups have equal access to communication with a people's deputy, but they did not see that as a problem. The MP and the community should provide a possibility for communication, but in the opinion of the study participants, they should not make extra effort to stimulate “communication outsiders” to use this right. They emphasized that the citizens have the right “not to communicate with a people's deputy”. And this right is as important as the rights to do so.

And this was the only topic, on which the views of the representatives of the public and the MP's teams coincided. The focus group participants believe that the perfect situation is when the deputy and the community create a really effective system of communication, but work actively with those community leaders, who have the desire and possibility of using the possibilities of such a communication system. As the participants of one of the focus-groups said – work with the leaders, the others will catch up.

In the focus groups, which consisted of community members, such an opinion was shared by 76% of the participants; among the representatives of MP's teams, this number was 85%. Only 6% of focus group participants representing the public and less than 3% (1 participant) of focus group participants representing MP's teams believed that they needed to specially strengthen communication channels between MP's teams and the people who have limited possibilities for communicating with an MP. At the mixed focus group, 33% of MP's teams' representatives recognized that their teams might have a problem of insufficient communicative activity, and 66% started

accusing community representatives, saying that they are not active enough in contacting MP's teams thus forming a distorted vision of a weak communicative activity of an MP and his/her team.

Similarly, MPs' teams often have a distorted and biased vision of a community. The key problem is that after proper communication fails deceived expectations come; this happens within the first few months after a candidate is elected and becomes a deputy of the Verkhovna Rada of Ukraine. The participants of the research believe that the situation may be improved through constant bilateral communication between the communities and MPs' teams. At the mixed focus group 10 (6 representatives of MP's teams and 4 representatives of the public) of 12 participants, which makes 83%, expressed an opinion that sustainable bilateral communication and increase of the amount of information received by the public about the work of the MP and by the MP about the needs and life of the community will considerably improve cooperation and mutual understanding. The rest (17%) were rather skeptical about this idea, referring to the existing negative tradition, the desire of MPs to self-enrichment, lack of unity in the goals of communities and MPs.

To ensure co-participation of the community and the team of a people's deputy is a dream of every elected official, of every political party, every deputy's team. It is no easy to implement the idea of co-participation in practice. Strong paternalistic expectations from the authorities (including the deputy) are an obstacle in this field.

In the course of the research we came across a paradox situation. The community wants to communicate with the deputy in order to organize the activity aimed at solving problems and reaching results. However, the community says that they are ready to do something together, but when it comes to business, they say that "he's the deputy, he must do this for us". That is why one should not count on the high level of community participation.

The information and reflections collected during focus group discussions as well workshops and training sessions has shown that the majority of citizens of our country are not ready to get personally involved in the formation of a communication system even when they fully understand all the benefits of the mechanisms of a representative democracy for civil society development. Thus, the participants of focus groups with representatives of the public said the level of their involvement is limited to making a repost in social media, reading or listening to the reports on an MP's work or visit a Verkhovna Rada session if the MP organizes such a trip and covers all the expenses. All this leads us to a conclusion that the people's deputy and his/her team will continue to be the locomotives in building communication between them and their respective communities.

Conclusions

To conclude, we may state that the conducted research has proven the hypothesis that the communities lack the understanding of essence of MPs work and that the MPs' teams have a distorted understanding of the community's needs. The situation may be changed through a wide and in-depth parliamentary education as well as through the formation of communicative competences of community leaders and members of MPs' teams. It is important to continue active communication with the community after winning the elections, however, the goals and content of this communication should be changed whereas the channels of communication that were used during the campaign should be preserved.

Despite the growth of the number of possible communication channels, especially digital ones, people constantly feel the lack of continuous effective communication with the elected representatives. Non-systemic attempts of informing the citizens fail as the information is lost in the massive information flows. So, the deputies and their teams should give more information to their communities and they should continuously use the same communication channels, preferably those used during the electoral campaign.

A typical mistake, which derives from the lack of communicative competences, is the wrong perception of each other by the parties involved. That is why, comprehensive parliamentary education should also equip the communities with the communication tools necessary for effective communication with the MPs and the MPs' teams should learn about the tools for community analysis that would help them build effective bilateral communication and interaction.

In the course of the research we also arrived to a rather controversial and alarming conclusion: people who live in a country with a rather weak and still developing democracy are ready to accept the limitation of their rights and freedoms. They do not see anything wrong in a total cyber control. This may be viewed as one of the markers of the fact that the society is ready to curtail the democratic reforms.

Most of the work on building communication with the community must be taken on by the MPs' teams as the communities will be mostly passive. As for the fact of whether people's deputies are ready to spend resources on forming effective bilateral communication between the community and MP's teams can be the topic of the next study on the topic of parliamentary education in Ukraine.

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OVERCOMING SOCIAL ISOLATION WITH DIGITAL TECHNOLOGIES AMONG AGEING POPULATIONS DURING COVID-19

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Abstract. *During Covid-19 social isolation has become more common worldwide, however, some groups, especially elderly people, might have experienced dramatically limited communication due to the lack of skills and access to digital technologies. In this paper, we examined if education was associated with the use of digital technologies to maintain contacts with a family, friends, other social networks and services. The survey was conducted in June-August 2020 by doing 1089 computer-assisted telephone interviews. The questions examined how people aged 50 years and older coped with socioeconomic and health-related impact of COVID-19.*

We used logistic regression analysis to study the association between the use of digital technologies and the level of education by gender and age. The higher the education was, the more it strongly associated with the use of digital technologies (OR 5.85; 95% CI 3.78-9.03). As expected, age was a strong explanatory factor, however, we did not find consistent age and gender differences. Among those who used digital technologies, analyses showed that overcoming social isolation was related to the education level. The conclusion of the study is that education has inevitable impact on the use of digital technologies and social contacts, however high education level is not crucial for the acquisition of information. It seems that digital technologies are important tools to prevent social isolation and are related to education that includes digital access and competencies.

Keywords: *education level, gender, Latvia, network, Survey of Health, Ageing, and Retirement (SHARE).*

Introduction

As coronavirus cases raise again, solutions for older adults to find ways to overcome social isolation and loneliness has an inevitable importance. COVID-19 as a pandemic has remarkably diminished possibilities for the older people to engage in meaningful, productive activities with others that are based on physical contacts and are strong prerequisites of healthy ageing (National Institute of Ageing, 2019). Activities that normally help to maintain wellbeing are limited due to social isolation because of government recommendations and restrictions, and also fear knowing that the infection can have life-threatening complications (Centers for Disease Control and Prevention, 2020).

Social isolation and loneliness are associated with higher risks for a variety of physical and mental conditions: high blood pressure, heart disease, obesity, a weakened immune system, anxiety, depression, cognitive decline, Alzheimer's disease, and even death (Cacioppo JT. & Cacioppo S., 2014; 2018). Unexpected events due to the death of a spouse or partner, separation from friends or family, retirement, etc. pose people at a particular risk of loneliness. COVID-19 has escalated those risks as many elderly people find themselves in a socially distanced situation due to the lack of physical contacts.

The COVID-19 outbreak has accelerated a shift to the use of digital technologies for almost everyone. Schoolchildren of today who have been surrounded by digital technology since their birth have also been given particular support to engage in online education, as well as in many cases provided with necessary devices. Older adults, especially those outside the labor market, on the contrary, have been invisible as regards assistance to use digital technologies. Older adults tend to be excluded from digital services because they do not use the internet to the same extent as younger generations, lack necessary devices and network connectivity, or are inexperienced using the technology (Seifert, Cotton, & Xie, 2020). Thus, they struggle with the double burden of social and digital exclusion. For this reason, it seems more important than ever to plan models and/or strategies allowing the older adult population to acquire and enhance digital competencies more easily.

COVID-19 has forced many more people to use the internet in new ways compared to the time before the outbreak. The ability to work from home, stay connected with a family or friends, socialize, shop, access healthcare, and keep physically active have all – to varying degrees – been dependent on the ability to get online, even for the older ones (Martínez-Alcalá et al., 2018). Limited possibilities to use internet also influences whether older adults can access online services and content, such as health information, digital social events, social networking, and online shopping (Seifert, Cotton, & Xie, 2020). Many

activities, information and services have moved exclusively online without offering offline alternatives or with offline alternatives being limited or restricted. This has placed those without digital access and competencies at even greater risk of missing out than before the outbreak (Centre for Ageing Better, 2020). Not only the situation during the COVID-19 pandemic but also the overall decentralization of services has led to expectations that an increasing number of older adults will be able to use Internet-based services—health, education, finance and others (Martínez-Alcalá et al., 2018).

The aim of the study was to examine, if education was associated with the use of digital technologies to maintain contacts with a family, friends, other social networks and services and put forward policy recommendations to promote digital engagement among older persons.

Material and Methods

Quantitative data collected as part of a special module developed in Latvia adjacent to the 8th wave of the Survey of Health, Ageing and Retirement in Europe (SHARE) was used in the study. A special extra module within the ongoing wave was developed and implemented in Latvia after the first wave of the Covid-19 pandemic. The survey was conducted using paper assisted telephone interviews (PATI). The target population of the SHARE survey consisted of permanent residents of the European countries over the age of 50 and their spouses. The survey was conducted in June-August 2020 by doing 1089 computer-assisted telephone interviews. The questions examined how people over 50 years of age coped with socioeconomic and health-related impact of COVID-19.

The sample consisted of SHARE longitudinal panel participants, SHARE wave 7 respondents, as well as those respondents in the wave 8 update who were interviewed before the start of the COVID-19 pandemic. The sample size used in this study consists of 976 valid cases.

In order to ensure the representativeness of the data and a balanced composition of respondents according to the general population of Latvia, the data were subjected to a weighting procedure by gender and age (Central Statistical Bureau data).

The data was analyzed in IBM SPSS 26 using bivariate and multivariate statistics. For descriptive analyses, chi-square (χ^2) tests and t-tests were used to compare differences between men and women. Secondly, a logistic regression model was used for analysis of the population to estimate the unadjusted (Model 1) and adjusted (Model 2) odds ratios (ORs) and 95% confidence

intervals (95% CI) of the correlation between the use of digital technologies and three levels of education – basic (reference), secondary and higher. In these regression analyses, ORs were adjusted for age and gender.

Research Results

Basic sociodemographic characteristics of the 976 respondents aged 50 and above are detailed in Table 1. The mean age of the respondents was 66.5 years; women were slightly older than men. There were significant statistical differences in the education level between men and women ($p < 0.001$). Among the respondents, the highest proportion (44.8%) had secondary education, whereof almost half of all participating women. A total of 634 persons (65%) used digital technologies, mostly to communicate with a family and friends (91.2%), and women were more prone to do so compared to men ($p < 0.05$). However, men used digital technologies to acquire necessary information to a larger extent than women.

Table 1 Characteristics of the Respondents Aged <50 years (mean, SD, N, %)

Group	All (N=976)		Men (N=385)		Women (N=591)		P men/women
Age (mean, SD)	66.5	11.5	64.3	9.46	67.5	10.9	0.081
Education level (N, %)							<0.001
<i>Basic</i>	224	24.0	67	19.3	157	28.2	
<i>Secondary</i>	405	44.8	186	53.6	218	39.2	
<i>Higher</i>	275	30.4	94	27.1	181	32.6	
Used digital technologies (N, %)							0.815
<i>Yes</i>	634	65.0	248	64.6	386	65.3	
<i>No</i>	342	35.0	136	35.4	205	34.7	
Used digital technologies in order to (N, %)							
<i>Communicate with a family and friends</i>	578	91.2	219	88.3	359	93.0	0.042
<i>Receive healthcare services</i>	224	35.2	82	32.9	142	36.8	0.321
<i>Acquire necessary information</i>	562	89.8	228	91.9	334	88.8	0.044
<i>Make internet purchases</i>	113	17.9	41	16.5	72	18.7	0.487

Bivariate logistic regression (Table 2, Model 1) was performed in order to assess the association between the use of digital technologies, the different purposes they were used for, age, gender and education. Significant associations were found for women as regards communication with friends and family, and

for men as regards acquisition of information. Older age was also associated with acquisition of information as well as purchases on internet.

*Table 2 Logistic Regression for the Use of Digital Technologies, Using Digital Technologies for Different Purposes and Education Levels. Model 1: bivariate logistic regression; Model 2: adjusted for age and gender, OR, 95% CI.**

Variable	Used digital technologies	Communicate with a family and friends	Receive healthcare services	Acquire necessary information	Make internet purchases
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
MODEL 1 (unadjusted)					
Gender (Men=reference)	0.97 (0.74-1.27)	0.55 (0.32-0.96)	0.84 (0.60-1.18)	1.78 (1.03-3.07)	0.86 (0.56-1.31)
Age	1.10 (1.08-1.11)	1.00 (0.97-1.03)	0.99 (0.97-1.01)	1.07 (1.04-1.10)	1.04 (1.01-1.07)
Education					
<i>Basic</i> (reference)	1 -	1 -	1 -	1 -	1 -
<i>Secondary</i>	6.73 (4.35-10.4)	2.64 (1.08-6.43)	1.88 (1.15-3.05)	4.48 (2.29-8.76)	2.99 (1.56-8.72)
<i>Higher</i>	4.86 (3.26-7.24)	3.02 (1.41-6.45)	1.53 (1.05-2.22)	1.40 (0.71-2.77)	3.35 (2.01-5.62)
MODEL 2 (adjusted)					
Gender (Men=reference)	0.70 (0.50-0.97)	0.57 (0.31-1.04)	0.87 (0.61-1.24)	1.55 (0.85-2.81)	0.88 (0.56-1.41)
Age	0.91 (0.90-0.93)	1.01 (0.97-1.04)	0.99 (0.97-1.01)	1.06 (1.03-1.09)	1.05 (1.02-1.08)
Education					
<i>Basic</i> (reference)	1 -	1 -	1 -	1 -	1 -
<i>Secondary</i>	5.02 3.13-8.05	2.62 (1.06-6.49)	1.98 (1.21-3.26)	3.49 (1.74-9.95)	2.58 (1.33-4.99)
<i>Higher</i>	5.85 3.78-9.03	2.88 (1.34-6.17)	1.50 (1.03-2.19)	1.52 (0.76-3.02)	3.38 (2.02-5.66)

*OR = Odds Ratio; 95% CI = 95% Confidence Interval; p value significant at <0.001 level

In Model 2 (Table 2), the associations between the use of digital technologies and education level remained strong even after adjustment for age

and gender. Those with higher education have higher odds to use digital technologies than those with basic education.

Discussion

Strong associations were found between higher education levels and the use of digital technologies, even after adjusting for age and gender.

The association between older age and use of digital technologies during Covid-19 might be related to the advised restrictions of meeting other people and to be in contact remotely instead, however, those with lower education might have had it more difficult to catch up with the new challenges.

It can be concluded that those with secondary and higher education might have a lower risk of social isolation due to a higher use of digital technologies. Like other studies show, lack of skills, affordability, cognitive problems etc. are plausible explanations (Seifert, Cotton, & Xie, 2020). As adjustment for age and gender did not have a considerable impact on the associations between the use of digital technologies and education, we can conclude that communication with a family and friends is important to overcome social isolation for most respondents, even though it is easier for those with higher education levels.

However, the most vulnerable groups, including older persons with low education, seem to face double burden of social exclusion. Our results are in line with other studies indicating less access to online services and content, such as health information and services, social networking, and online purchases (Seifert, Cotton, & Xie, 2020).

Our study suggests the need to develop mechanisms preventing social isolation regardless of digital access and competencies. On the other hand, putting forward models and/or strategies is also important to ensure that the older adult population has prerequisites to acquire and enhance digital competencies more easily (Martínez-Alcalá et al., 2018). Older adults with lower education might think that digital technologies are difficult to use and some believe that they are not capable of learning to use them. The lack of exposure to the internet over the life course can also affect how relevant or valuable people perceive online access to be (Centre for Ageing Better, 2020). Many people prefer offline alternatives and do not identify themselves as internet users. Therefore, it has been suggested in previous studies before the COVID-19 outbreak that new ways to introduce digital technologies to currently excluded potential users should be examined, and also to improve the design of digital products so that they are easy to use and easy to learn, which can facilitate adoption by all types of users (Martínez-Alcalá et al., 2018).

As other studies show (Hodge et al., 2017; Tam, 2018), learning can be carried out under many and varied conditions, not only in classrooms. Older people have accumulated a countless number of hours of informal learning; therefore, it is not enough to provide older people access to existing services (Martínez-Alcalá et al., 2018). It is also important to create educational environments which recognize and support all types of learning and all types of previous experience (Hodge et al., 2017; Tam, 2018), so that they would support even those with lower education. Martínez-Alcalá et al. (2018) suggest the educational model toward digital literacy of the elderly including Usefulness of Learning, Cooperativeness and collaboration, Fostering social inclusion and Promoting autonomy. Thus, the knowledge acquired should decrease the double burden of social isolation among older adults and give them a possibility of expanding communication channels through the internet with their relatives and friends, either close or distant.

Digital inclusion would ensure people with different education levels to use the internet and online technologies to meet their needs. As a report of Centre for Ageing Better (2020) suggests, the prerequisites include: (1) infrastructure – being able to afford or have access to a device (whether a mobile phone, tablet or computer), as well as being able to afford or have access to the internet through broadband, Wi-Fi or mobile data; (2) skills – having the ability, confidence and digital skills to use digital devices and the internet; (3) accessibility – having access to services that are designed to meet users' needs, including for individuals with disabilities that require assistive technology to get online. These suggestions are in line with our current results and a recent report the researcher group of this project submitted to the Ministry of Welfare of Latvia (submitted) where financial obstacles as well as cognitive problems were discussed and suggested for the future policy development. As other previously mentioned studies also have suggested, government and service providers should invest in schemes to support those who are digitally excluded to get online.

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NEW UKRAINIAN SCHOOL EDUCATIONAL REFORMS AND PROFESSIONAL MASTERSHIP OF THE PHYSICAL EDUCATION TEACHER

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Abstract. *The physical education teachers' attitude towards reforming of education in Ukraine in terms of reform "New Ukrainian School" was analyzed in the article. The physical education specialists' thoughts according these reforms' impact on forming of professional mastership of teachers were analyzed in the article. The goal of the research is to provide comparable analysis of the support level of New Ukrainian School reforms that have impact on building professional improvement of physical education teachers.*

In order to reach the goal such methods were applied as analysis and generalization of literature sources, teachers' survey, based on questionnaire, its mathematic processing and comparative analysis. There were questioned 341 teachers from 7 Ukrainian regions with different qualification levels and pedagogical experience. All the respondents have given their permission in participation in the research.

The different levels of support of educational reforms among physical education teachers were found out. Innovations, in general, have higher than average and lower than average levels of support. The highest level of support has such innovation as freedom to choose or create educational program – 77,4%. However, even with high level of support, 41,9% of teachers think that they should teach pupils according to the only studying program, that is submitted by profile ministry. Only 6,5% of respondents are ready to create their own studying programs. However, 33,8% of teachers think the studying program should be adapted according to conditions of educational establishments. In order to build professional mastership, it is essential to imply different forms of qualification improvements (71,3%), distance studying during course retraining (59,7%), teachers' certification (53,6%). The lowest level of support has decentralization in management of educational establishment (39,1%).

Keywords: *educational changes, physical education, professional mastership reform, teachers.*

Introduction

The modernization of the general secondary school system motivates pedagogical worker to realize the ideas of teachers-innovators. This works as a basis for creating its own pedagogical mastership (Vindjuk, 2013). Such situation requires independent preparation of the specialist, who is aware about his or her social responsibility, who is the subject of individual and professional development, who can achieve pedagogical goals: to set a goal, to determine the strategy and specific methodic to build professional activity (Fedorchuk, E., Konkova, Fedorchuk, V., & Zaremba, 2006). The modern stage of development of the domestic education is characterized by implementing of educational reform “New Ukrainian School”, having a goal to improve educational quality significantly. The educational innovations, declared by the reform, intersect not only with pupils, but with teachers as well.

Moiseiev (2018) claims in his researches that specifics of the New Ukrainian concept is increasing requirements towards teachers’ professional mastership in general and physical education teachers in particular.

The researches by domestic scientists Fedorchuk, E., Konkova, Fedorchuk, V., & Zaremba, 2006; Matviichuk, 2015a; Moiseiev, 2017; Penkovets, 2013; Radkevych, 2012; Savchenko, 2011; Sorokolit, Shyyan, Lukjanchenko, & Turchyk, 2017; Veselovskyi, Redchyts, Ilchyshyn, 2016; Yurieva, Sava, & Yavorskyi, 2009 affirm significant interest towards forming pedagogical mastership of physical education teachers. Thus, Yurieva, Sava and Yavorskyi (2009) claim that physical education specialists’ professional forming in practical activity with pupils is influenced by self-education and self-discipline directly. Savchenko (2011) substantiates ways to build professional mastership in the system of postgraduate pedagogical education among physical education teachers working in elementary school. Penkovets (2013) has reviewed theoretical aspects of stages of building mastership among future physical education teachers in present conditions. Matviichuk (2015 a) has discovered specifics of forming professional mastership among physical education teachers. Veselovskyi et al. (2016) has determined problems, directions of specialists’ professional forming towards practical activity and professional self-development. Kurnyshev (2017) has put attention on discovering pedagogical conditions for professional self-development of future physical education teachers. Moiseiev (2017) has determined modern trends in the semantic environment of the construct “pedagogical mastership”.

The question of forming of pedagogical mastership among physical education teachers is relevant in researches of foreign scientists, such as Avalos, 2011; Dezimone, 2009; Konukman, 2015; Kougioumtzis, Patriksson, & Strahlman, 2011; Little, 1993; Tannehill, Demirhan, Chaplova, & Avsar, 2021.

The pedagogical mastership of the physical education teacher was the object of research of Ukrainian researches in lots of dissertation works: Arefieva, 2010; Azhyppo, 2013; Deminska, 2014; Kurnyshev, 2017; Matviichuk, 2015b; Omelchuk, 2014; Papucha, 2010; Stepanchenko, 2017. The various problems of creating professional development of physical education teacher are discovered in these works. The relevance of our research is proved by adoption of New Order for professional development of pedagogical and scientific-pedagogical workers. Thus, there has arose demand to investigate physical education teachers' opinion according the effectiveness of educational changes and its influence of pedagogical mastership.

The goal of the research is to perform comparative analysis of support towards educational reforms from New Ukrainian School that influence forming of professional development of physical education teachers.

Methodology

The participants of the research are physical education teachers from 7 Ukrainian regions, in particular Lviv region (n=50 – 25,8%); Ivano-Frankivsk region (n=53 – 13,6%); Ternopil region (n=54 – 13,8%); Khmelnytsky region (n=48 – 12,3%); Vinnytsia region (n=50 – 12,8%); Dnipropetrovsk region (n=36 – 9,2%) and Kherson region (n=50 – 12,8%). In total, 341 physical education teachers participated in the survey, among them are 227 of man (66,6%) and 114 of women (33,4%). It worth to mention that teachers are with different pedagogical experience and qualification level. Thus, there were 153 teachers (44,9%) with higher qualification category, 88 teachers (25,8%) with first category, 55 teachers (16,1%) with second category and 45 teachers (13,2%) with a “specialist” category.

Such methods were applied in the research as analysis and generalization of literature sources (it allowed us to determine relevance of our research and to form the goal); physical education teachers' survey (by questionnaire – with a goal to find out physical education teachers' attitude towards influence of educational reforms from New Ukrainian School on building professional mastership; it was anonymous). The questionnaire was consisted from 26 questions. We have succeeded in determination of various levels of support of

educational reforms that are nowadays implementing in general secondary educational establishments.

The survey was performed on the basis of regional postgraduate establishments of pedagogical education during courses of qualification improvement during the period from September'19 till February'20. All the respondents gave their approval in participation in the survey (Sorokolit, 2018).

The materials from research were elaborated in the program Microsoft Office Excel. We have determined arithmetic mean value of educational reforms support in percentage by representatives of all regions and support level in particular regions in percent. What is more, we have applied the Pearson's criteria χ^2 to reveal probability of respondents' opinion disagreement from regions. With $p < 0,05$ the difference in respondents' answers is statistically significant.

It was managed to perform comparative analysis of support level of educational reforms by generalization of survey results. With data interpretation we applied scale of reforms' support that consists of 4 levels: low, lower than average, higher than average and high. The low level of support forecasts the support of 0-25% of respondents; lower than average – 26-50% of respondents; higher than average – 51-76% of respondents; high level – 76-100% of physical education teachers (Sorokolit, Rymar, & Bodnarchuk, 2020).

The Results

The results of the survey of physical education teachers give us opportunity to state that specialist in physical education are actively interested in reforming of education in Ukraine.

In our opinion, such educational innovations as freedom to choose or create the program, decentralization in management of educational establishments, distance studying during courses of qualification improvement, various forms of qualification improvement (webinars, seminars, workshops) and institutions that provide it and system of independent teachers' certification have impact on building pedagogical mastership of physical education teachers. That is why we have investigated level of support for these educational innovations among physical education teachers (Moskalenko, Bodnar, Sorokolit, Rymar, & Solovey, 2020).

The highest level of support has such educational innovation as freedom to choose or create studying program. Such innovation is supported by 77,4% or questioned teachers. Teachers think that this innovation has essential role in building professional mastership as it allows to make author programs, based on

their own pedagogical experience. It worth to mention that difference in respondents' answer is statistically not significant ($p=0,66$). Such a high level of support we can explain by the fact that majority of respondents are specialists with higher (44,8%) and first (26,3%) qualification category. The teachers from these categories already had the opportunity to work with different studying programs in physical education subject. With this, the highest level of support is noticed among respondents from Lviv region – 82,0%, Kmelnytsk region – 79,2%, Ternopil and Dnipropetrovsk regions – 77,8% each. These results represent high level of support. The lowest percentage of support we have got from physical education teachers from Kherson and Vinnytsia regions – 74,0% each, what belong to higher than average results group (Fig. 1).

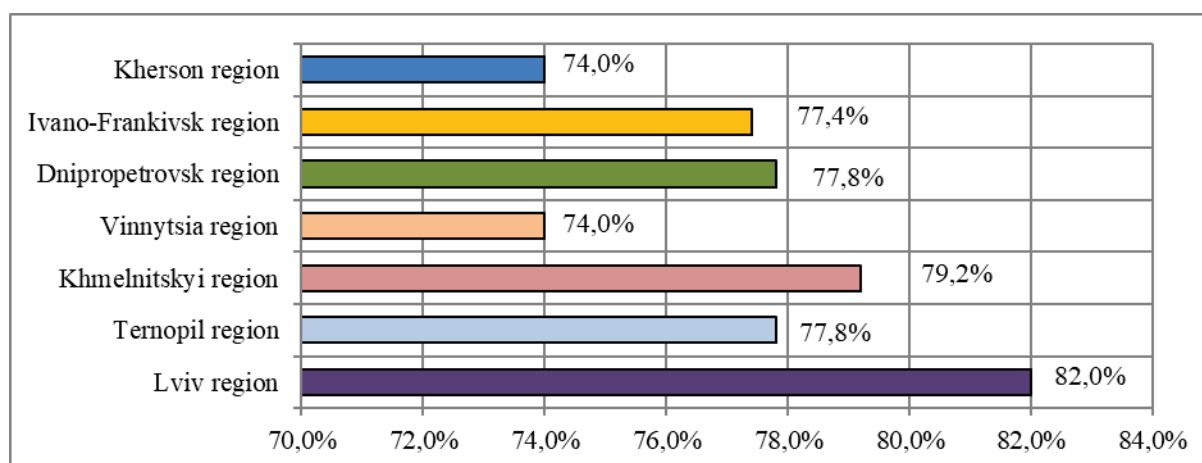


Figure 1 Percentage Value of the Support Level of Freedom to Choose or Create Studying Program by Physical Education Teachers in Different Regions of Ukraine

Despite the high level of support of this educational innovation, 41,9% of respondents think that the most effective way is to teach the subject “Physical education” according to the only studying program, that is proved by the profile ministry. Such opinion have 49,1% of respondents in Ivano-Frankivsk region, 41,7% in Dnipropetrovsk region, 48% in Vinnytsia region, 45,8% in Khmelnytskyi region, 40,0% in Kherson region, 38,9% in Ternopil region and 30,0% in Lviv region. The significant difference between respondents was not discovered ($p=0,47$).

But in Lviv region (44,0%) and Ternopil region (42,6%) teachers are convinced that the most effective way to teach a subject is adapting the only studying program according the conditions of educational establishments. According to teachers' thoughts it helps to show creativity and own pedagogical experience in planning studying documentation, according to state standard, that

will positively influence pedagogical improvement and quality of physical education lessons.

The low level of support (6,5% of physical education teachers) has opportunity to work according to author programs. The most prepared for creating author studying programs are physical education teachers from Kherson region (12,0%) and Vinnytsia region (12,0%). The lowest percentage are in respondents from Khmelnytskyi region (2,1%), Ternopil region (1,9%) and Ivano-Frankivsk region (1,9%). There is no significant difference in respondents' answers ($p=0,46$).

The second place has got innovation – providing different forms of qualification improvement (webinars, seminars, workshops) of pedagogical workers and institutions that provide it. This educational innovation is supported by 74,4% of physical education teachers. Worth mentioning that this innovation is not supported evenly, there is statistically significant difference in answers of respondents ($p=0,00$). The high level of support is noticed in Dnipropetrovsk region (88,9%), Ivano-Frankivsk region (88,7%), Khmelnytskyi region (85,4%) and Ternopil region (77,8%). With this, teachers emphasize that only combination of theoretical studying according to educational program and performing of practical lessons in form of open lessons or workshops might effectively influence on forming professional mastership. Higher than average level of support is found out among respondents from Vinnytsia region (74,0%).

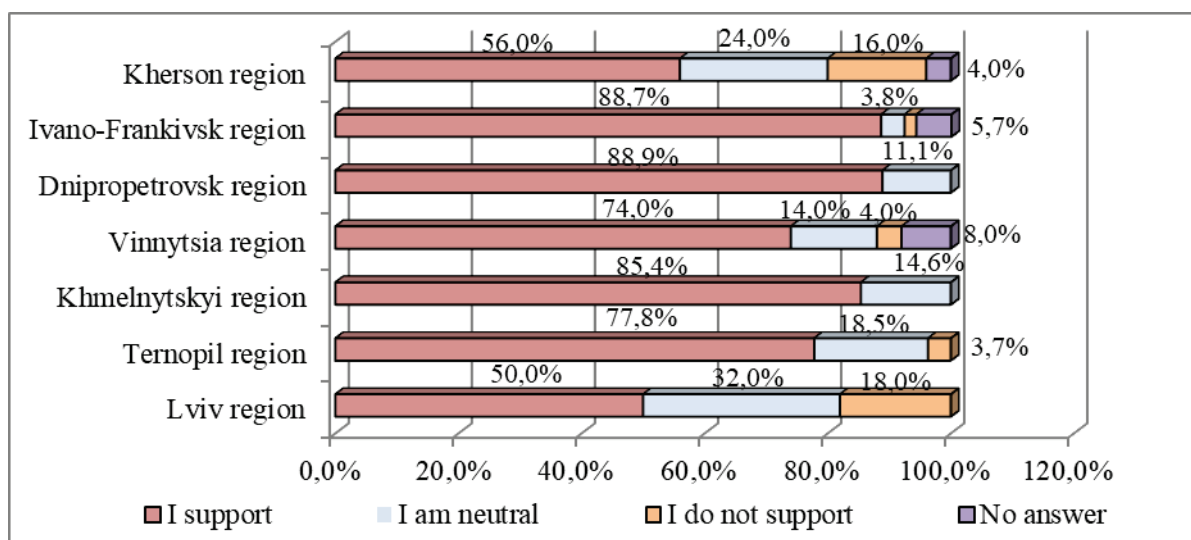


Figure 2 Percentage Value of Physical Education Teachers' Attitude towards Implementing Different Forms of Qualification Improvement

The support for different forms of qualification improvement noticed in half of respondents from Kherson (56,0%) and Lviv region (50,0%) (Fig. 2).

Higher than average level of support also has such educational innovation as system of distance studying of qualification improvement of teachers. This educational innovation support 59,7% of respondents. High level of support exist among physical education teachers from Ternopil region (79,6%). In Dnipropetrovsk region it is lower than average as only 33,3% of respondents threat this innovation as effective for improvement of pedagogical mastership. This indicator is higher than average in other respondents and fluctuates from 56,0% in Vinnytsia region to 66,0% in Lviv region (Fig. 3).

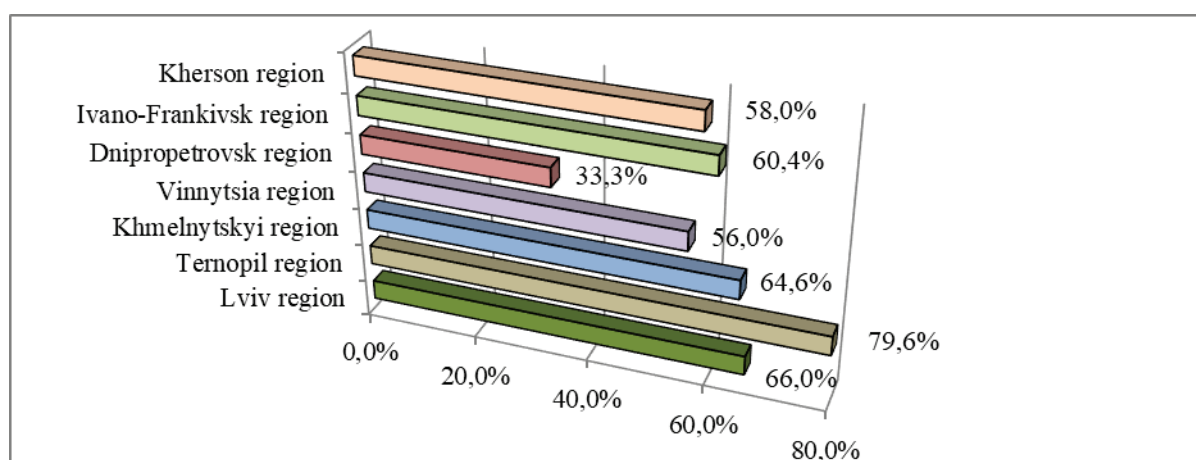


Figure 3 Percentage Value of Support to the System of Distance Studying of Qualification Improvement of Teachers

The implementation and providing of independent certification is supported by 53,6 participants of the survey. Such innovation has revealed statistically significant difference in the respondents' answers ($p=0,02$). The highest percentage of support is among physical education teachers from Lviv region – 70,0% and the lowest level is from Khmelnytskyi region – 39,6%. In Kherson region the certification is supported by 60,0% of physical education teachers, in Dnipropetrovsk region – 58,3%, in Ternopil region – 53,7%, in Vinnytsia region – 52,0%, in Ivano-Frankivsk – 41,5%.

Decentralization of educational establishments as an effective form of management of educational establishment is supported by 39,1% of physical education teachers. This result belongs to group “lower than average” level of support. Respondents' answers differentiate statistically ($p=0,002$). The highest percentage of support of this educational innovation is found in Lviv region – 48,0%, Vinnytsia region – 42,2% and Kherson region – 42,0%. A little higher

indicator from average, revealed in Ivano-Frankivsk region – 39,6%. The lowest percentage of support to school decentralization is found in Dnipropetrovsk region – 33,3%.

Discussion

The performed research showed that not all the reforms from New Ukrainian School that are directed to form professional mastership and are realizing in education have equal level of support among physical education teachers. The interesting fact is that such educational innovation as providing different forms of qualification improvement of pedagogical workers (webinars, seminars, workshops) and institutions that provide this did not get consistent opinion among physical education teachers. We assume that low level of support of this innovation in Lviv and Kherson region can be connected with high level of conservatism among physical education teachers and quality of courses for qualification improvement in these regions and also with high percentage of teachers with working experience more than 30 years.

Teachers from Vinnytsia region (56,0%) and Lviv region (66,0%) do not think it might be effective to increase own pedagogical mastership. It can confirm our assuming about physical education teachers' conservatism towards innovations, their high level of trust towards regional institution of postgraduate pedagogical education, the desire of classroom communication and knowledge sharing and also lack of information technology skills among physical education teachers from those regions.

In our opinion, the result according teachers' certification is a little bit strange. The average indicator in regions, we have questioned is 53,6%. Especially low this indicator is in Khmelnytskyi (39,6%) and Ivano-Frankivsk (41,5%) regions. This result did not confirm our assuming. We were thinking that certification may become good motivation for self-education and self-improvement of professional competences, as well as successful passing the certification will bring 20% increase in teachers' salaries for three years for those who passed. Among reasons for such attitude may be: teachers' conservatism, low confidence in its own pedagogical mastership, intolerance to changes, lack of desire to extra preparation to theoretical and practical components of certification, fear not to confirm their existing qualification category according to results from previous attestation.

Our research showed that physical education teachers are not ready to create author programs nowadays, majority of teachers support implementing in their practice the only studying program that is proved by profile ministry. Only

6,5% of teachers think that their pedagogical experience and mastership allow to create author programs and perform their professional responsibilities according to these programs. In our opinion, among the reasons that make it impossible to create author programs might be lack of confidence in own pedagogical experience, lack of desire to show creativity, fear of criticism from colleagues according their work and absence of knowledge in how to conclude a program.

Conclusions

Thus, our research has showed that innovations, proposed by educational reform “New Ukrainian School”, to form pedagogical mastership in general have higher than average and lower than average levels of support. High level of support has only such innovation as freedom to choose or create studying program – 77,4%. However, 41,9% of teachers think that they should teach pupils according to the only studying program, confirmed by profile ministry. Only 6,5% of respondents are ready to conclude author educational programs; 33,8% of respondents think that educational program from physical culture should be adapted according to educational establishments’ conditions. The results of the research testify that to form professional mastership such innovations as different forms of qualification improvement (71,3%), distance studying during course retraining (59,7%), teachers’ certification (53,6%) become important part. The lowest level of support has the innovation of management decentralization in educational establishments (39,1%).

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CAREER MYTHS FROM STUDENTS AND EDUCATORS PERSPECTIVE

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Abstract. *Drastic and structural changes in the labour market and organizational environment related to the Covid-19 pandemic, rapid technological development, general globalization trends, demographic deterioration and other economic changes signal the need to find new approaches to the classical career management paradigm. Several studies on occupational segregation show that various stereotypes and misconceptions affecting the choice of occupations for young people are still relevant, but changes in the working environment also determine changes in this context. The European Social Fund project “Career Support in General and Vocational Education Institutions” has made huge contributions to the improvement of the career guidance system in Latvia since 2016, developing and approving career development support action plans, along with informative and methodological materials, as well as educating career counsellors and support specialists, thereby updating their approaches to career guidance and management. This study analysed the views of students and educational staff about current beliefs and stereotypes about career choices and management.*

Data from the 96 specialists and managers surveyed from different educational institutions reveal that educators have a strong belief in the importance of career stability. A majority believe that career choice is not always a guided process, although most support the involvement of career professionals. The importance of prestigious education and hard work, as well as success in one’s career, is emphasized. The 10th through 12th grade students were surveyed in 2019–2020 in Daugavpils, Dobeles, Ogre and Riga general educational schools. In the opinions of these pupils, there is evidence of various stereotypes regarding the choice of profession, as well as the correspondence of career beliefs and convictions within the dynamics of modern working life.

Keywords: *Career choice, career education, career management, career myths, career beliefs.*

Introduction

During this time of rapid and unpredictable changes in the labour market, economy, society and organizational environment in general, along with the current crisis caused by the Covid-19 pandemic, a new approach to the classical

career management paradigm is necessary for most people who need to make choices and are at different stages of their career transition.

Although a number of important studies in the field of career development have been conducted in Latvia, researchers still point out that students and teachers typically have different understandings of the concept of career management. These differences also include different stereotypes, misconceptions and myths that relate to the old or traditional career management paradigm more than the new one, which is much more appropriate and flexible for meeting the modern conditions and new demands in the labour market.

The European Social Fund (ESF) project “Career Support in General and Vocational Education Institutions” (2016–2022) has been making a huge contribution to the improvement of Latvia’s career guidance system and also the general comprehension of teachers and pupils about career choices and guidance. The main activities of the project are in the areas of developing and approving career development plans, informational materials and methodological information and in educating career counsellors and support specialists to update their approaches to career guidance and management.

The aim of the present study was to investigate some of the most popular beliefs and myths about career choice and management from the perspective of both educators and school pupils. An online questionnaire was used to gather data from the educators, and a paper questionnaire was distributed to pupils in 10th through 12th grade classes.

Career Management Paradigm: Traditional vs. New

The leading scholars of traditional career development theories expect that young people will make a long-term career choice before graduating from high school, and they emphasize the vocational guidance model that explores one’s interests, aptitudes and values, believing them to be essential for a good career choice. A successful choice of education is believed to be linked with a positive and stable vocational identity (Klimov, 1996). In the traditional career paradigm, the determination of a best-fit occupational goal by matching personal traits to job factors and long-term plans for career management was an essential part of career guidance (Savickas, 2005). In addition, the beliefs that the most important factor for career choice is stability, with minimal changes and transitions, and continuous acquisition of expert skills in one area are common in the traditional view and comprehension of individual career management (Bluestein, 2006).

However, new career paradigms began to develop in the 1990s, putting emphasis on an unrestricted career model. The main benefits offered are the acquisition of new knowledge and skills for self-improvement, increased personal contacts through meeting new people, personal growth, expansion of

horizons through changing attitudes, skills for rapid transitions and improved communication skills, both oral and written (Arthur, 1999). These paradigms reflect a move from job stability to employability and from an organizational career to a career of change (Hall, 2002). The Covid-19 pandemic, along with a fast-growing technological innovation sector, globalization, unstable worldwide employment patterns and changes of personal and organizational values have determined transformations in organizational and personal beliefs, as well as in the skills of individuals (Orsmond, 2020; Deloitte, 2020). The changed nature of the work world means that individuals may have to revisit this process now and in the future more frequently than they did in the past. This includes the self-development process, which should now focus on short-term goals rather than long-term ones and taking control of one's personal development (Savickas, Baker, 2005).

The Organisation for Economic Co-operation and Development (OECD) released policy responses to Covid-19 surveys about job skills for mobilizing the workforce during the pandemic (OECD, 2020) that investigated the labour force's ability to meet immediate demands during the health crisis. The OECD described the most effective skills for successful transitions in the job market, emphasizing a variety of soft skills rather than professional skills in one career field.

Career Beliefs and Myths

Despite obvious changes in the understanding of career management, the well-developed career guidance systems in most countries and a wide variety of projects and activities in career education (e.g. ESF, 2016–2020), an approach based on the traditional career paradigm is still apparent. There are pervasive and persistent beliefs and myths among children, parents and teachers that are based on the foundations of a traditional understanding of career (Lemesonoka, 2020). Moreover, beliefs about traditional gender-role-oriented professional segregation are still found in some fields (LOPB, 2006; LIKTA, 2005; European Commission, 2009). Career beliefs are defined as positive and negative thoughts or assumptions people hold about themselves, occupations and the career development process (Sampson, Reardon, Peterson, Lenc, 2004). Career myths are incorrect assumptions and generalizations about the career counselling and decision-making process (Amundson, 1997). Career beliefs can influence a person's career-related aspirations and actions in both positive and negative ways. Negative beliefs can affect an individual's perception of themselves and the world of work, increasing the stress associated with making a career decision. They can also immobilize an individual's actions towards their career goals and create a belief that one is less able to make good career decisions

(Sampson et al., 2004). Beliefs that previously served as legitimate guides to career development may no longer be viable in today's labour market (Roll, Arthur, 2002). Some authors have associated career myths with the concept of dysfunctional career thoughts (Sampson et al., 2004) and noted that dysfunctional thoughts and lack of development of career interests may be key factors in an inability to formulate educational and career goals and make appropriate career decisions (Railey, Peterson, 2000).

Career beliefs may carry over from childhood and family experiences, and they are connected to culture, religion, community and socio-economic conditions. They are also relatively strong, but several researchers have pointed out that career education activities, guidance (Peng, Herr, 1999) and counselling can change these beliefs (Roll, Arthur, 2002). Another factor is that some of the more ubiquitous career beliefs could be connected with cognitive biases or logical errors. For example, survivorship bias is the logical error of concentrating on the people or things that cleared some selection process in the past, which can lead to false conclusions or overly optimistic beliefs about career success because failures are ignored (Shermer, 2014).

Career misconceptions can be grouped according to Stead and Watson's (1993) Career Myths Scale (CMS), developed to assess the extent to which students subscribe to irrational beliefs regarding careers, using the following categories: 1) test myths, 2) misconceptions of exactitude, 3) self-esteem myths and 4) career anxiety myths (Stead, Watson, 1993). Career myths can be subdivided into different levels-individual, social and environmental/societal (Albien, Naidoo, 2017). Albien and Naidoo noted that the Stead and Watson's CMS is unable to capture many irrational career beliefs, especially at the social level. Therefore, they group social career beliefs in the categories of proficiency beliefs, common-practice beliefs, self-worth beliefs and persistence beliefs (Albien, Naidoo, 2017).

Career myths have been linked to the negative circumstances of career indecision (Saunders, Peterson, Sampson, Reardon, 2000) and increased negative emotions or lack of action towards making career decisions (Albien, Naidoo, 2017). However, positive career beliefs, such as self-efficacy, facilitate movement through career decision-making processes and can lead to career goal-related behaviour (Peterson et al., 1996).

Career myths persist among different groups of individuals, which is confirmed by many online career management portals regularly publishing refutations of various career myths and misconceptions. Additionally, myths are regularly discussed at various career events in schools and even universities.

Asking questions about different aspects of career development in order to identify the different misconceptions that are still pervasive, along with identifying beliefs and their potentially negative influences on career

development, may provide sufficient insight for the generation of alternatives aimed at developing more effective career education programmes and improving career guidance systems at the state and local levels.

Methodology

The present study was carried out in two stages. For the ESF project ‘Career Support in General and Vocational Education Institutions’, 115 students in grades 10–12 from Daugavpils, Dobeles, Ogre and Riga general educational schools (56,5% girls, n=65; 43,5% boys, n=50) were surveyed in career education workshops from January to March 2020. The short questionnaire asked about popular myths about career stability, choice, goal setting, planning and success factors in career development (see Table 1 below). Career myths were categorized according to Albien and Naidoo’s classifications (2017).

Table 1 Statements about Career Choice: Student Questionnaire

Career myths category	Statement
Proficiency beliefs	1) Success is a crucial element in career management.
Persistence beliefs	2) The most important thing in a career is the stability and security of the profession.
Misconceptions of exactitude	3) A career choice is for life.
Common-practice beliefs	4) High salary and prestige are the most important factors in career choice.
Self-worth beliefs	5) Everyone has the potential to succeed in their field and overcome all obstacles.

Adapted from Albien and Naidoo (2017).

Table 2 Statements about Career Choice: Educator Questionnaire

Career myths category	Statement
Proficiency beliefs	1) Success is a crucial element in career management.
Common-practice beliefs	2) The most important thing in a career is the development of specialized professional skills.
Persistence beliefs	3) Higher education is a crucial factor in getting a high-paying job.
Misconceptions of exactitude	4) Education in art science is not a particularly serious career choice.
Common-practice beliefs	5) A prestigious school guarantees a better job and status in the future.
Misconceptions of exactitude	6) It is not desirable to bring work home; home is a place to relax.
Misconceptions of exactitude	7) Hobbies are leisure activities; they are not related to work.
Self-worth beliefs	8) Starting a new career stage would mainly rely on previous knowledge and skills.
Persistence beliefs	9) The most important thing in a career is the stability and security of the profession.
Proficiency beliefs	10) Career choices will often be decided on their own.
Common-practice beliefs	11) High salary and prestige are the most important factors in career choice.
Self-worth beliefs	12) Everyone has the potential to overcome all obstacles and succeed at the highest levels in their field.

Adapted from Albien and Naidoo (2017).

Findings and Discussion

Table 3 summarizes the assessments of different career statements from the students' perspectives. The statements were chosen based on the most popular career myths in Latvia as described by Lemesonoka (2020). Five types of career myths were represented: common-practice (4), proficiency beliefs (1), misconceptions of exactitude (3), self-worth (5) and persistence beliefs (1), as described by Albien and Naidoo (2017). The results show that, overall, students are rather optimistic about their potential to succeed in their chosen fields (75,65% agreed). However, they also believe that success is a very important factor in choosing a career path (60,86%).

Table 3 Career Statement Assessments (high school students)

Statement	Agree (N)	Agree (%)	Disagree (N)	Disagree (%)
1) Success is a crucial element in career management.	70	60,86	45	39,14
2) The most important thing in a career is the stability and security of the profession.	35	30,43	85	69,57
3) A career choice is for life.	15	13,04	100	86,96
4) High salary and prestige are the most important factors in career choice.	67	58,26	48	41,76
5) Everyone has the potential to overcome all obstacles and succeed at the highest levels in their field.	87	75,65	28	24,35

n=115

Different assessments were seen in the responses from students and teachers regarding persistence-oriented myths, such as the stability and security of a profession. In student assessments, the stability and long-term security of a profession was not a very important factor for career choice—only 30% stated that they partially or totally agreed with that belief (Statement 9). This assessment can also be related to the rapid changes in society and the organizational and job environments due to rapid technological leaps causing many professions to change, disappear and re-emerge (Deloitte, 2020).

Also, different generational cohorts may have an impact on the assessment of these statements. Students generally belong to Generation Z, whose habits are associated with flexible adaptation to many situations, professional use of technology and greater flexibility in changing hobbies and, later, professions (Törőcsik, Kehl, Szűcs, 2014.). The opposite picture is observed in the teacher survey (see Figure 1), where practice-oriented considerations are assessed as more positive. Stability and security in a profession (Statement 9) was highly valued by 65% of educators, and reliance on one’s professional abilities in a future career (Statement 2) was positively assessed by 74% of the educators.

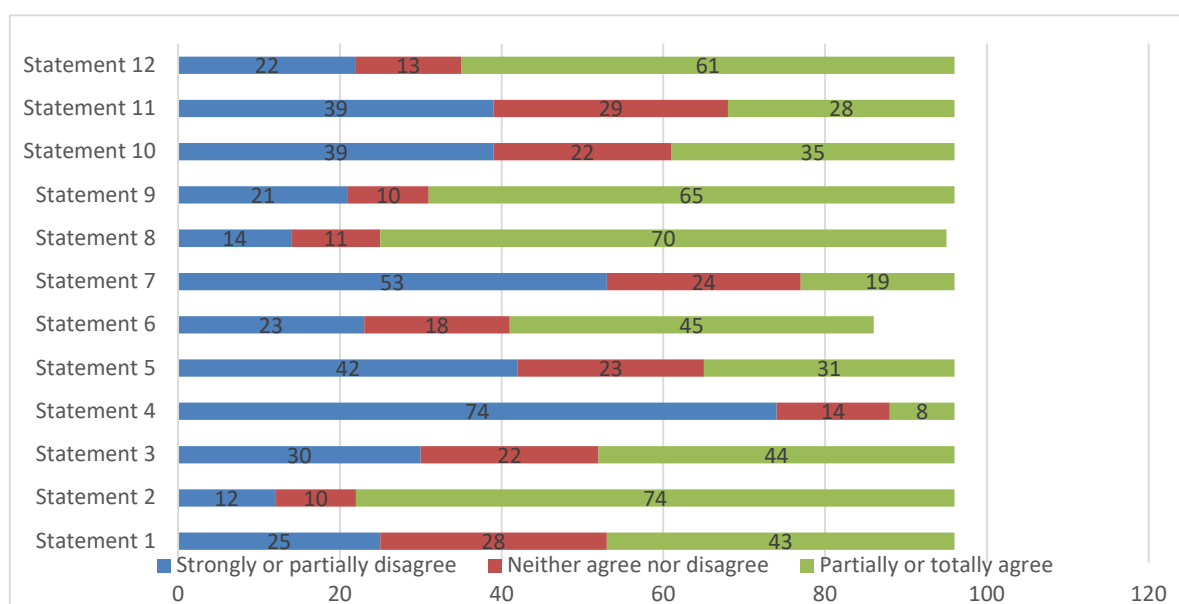


Figure 1 Career Statement Assessment (Educators, n=115)

A positive assessment of these claims may relate to the professional experience of teachers, as well as to the specificities of the age groups (most of the respondents were over 41 years old).

A recent OECD TALIS study on professional evaluations of teachers and school leaders (OECD, 2020) indicated that while only 23% of educators in Latvia agreed that their profession is valued in society, teachers and school leaders are generally satisfied with their work and rely on their professional abilities as well as their ability to cooperate. The proficiency-based career myth assessment showed that educators rely less on the role of success in career leadership, but neither does it exclude this factor (43% agree). Attitudes towards the second proficiency-based myth of this kind, that a career choice will be decided on its own (Statement 10), were divided—39% did not support it, but 35% did. Successful career choice in both the traditional career paradigm and the new one is associated with informed career decision-making, where career support also plays an important role. Teachers are an essential element of a career guidance system, so such an assessment could signal that teachers might indicate to students they will find a future career path on their own, without special support or guidance.

Conversely, when students were asked about practice-oriented myths, such as the prestige of the profession and high salaries, 58% supported statements that these factors are very important in career choice. Educators were less supportive (Statement 11) - only a third of respondents gave a positive evaluation of the statement. This may be explained by the lower levels of remuneration for the teaching profession along with other values inherent in the choice of the profession.

Self-worth career myths that emphasize everyone's potential to achieve even the loftiest goals were very supported among students-almost 87% were confident about their ability to achieve the highest professional goals. Career theories play a very important role in setting career goals, but it is always noted that goals must be clear, achievable, time-based and measurable; otherwise, the goals may be unachieved, and the young person may not fulfil their dream. It is also necessary to take into account common cognitive errors such as the survival bias that means career objectives may not be achievable if you are focusing on only the top level of career achievement. However, teachers point out that it is very important to inspire young people by example and to allow them to believe in their abilities (Statement 12).

The survey also included statements related to misconceptions of exactitude myths. The statement that it is not desirable to combine work and home life was supported by 45% of professionals (Statement 6). This may be due to the survey of teachers being conducted in April and May of 2020, when the country and its labour market were under the restrictions imposed by the Covid-19 crisis and the emergency rules that affected teachers very directly, disrupting the balance of home and work life. It also revealed respondents' objective difficulties in accepting the situation of having to work from home, which fully reoriented their work. It is clear that educators value the role of higher education in career development-44% of respondents indicated that higher education is a prerequisite for a good career and a high-paying job. However, this view is somewhat overturned by several studies on the factors that employers find important (Šmitiņa, 2018). Job surveys sometimes indicate that higher education is not always the most important factor allowing you to move up the career ladder.

Summary and Conclusions

Due to both the Covid-19 crisis and changes in general labour market trends, it is crucial to update the role of career planning and career education in career management processes. Recent changes show that people need to be immensely flexible in changing their persistent career beliefs and myths-when professions, employment and work enter the home environment, the required skills change rapidly. The younger generation bases their career choices on principles other than the traditional career paradigm, and this is not always consistent with the beliefs of career guidance professionals and educators.

The data obtained in the present study highlight these differences between student and educator beliefs about careers. Career security, reliance on certain professional abilities and a desire to not mix work with hobbies and home life are more important for educators. However, young people are confident in their

ability to achieve their goals despite various barriers, without paying much attention to the stability and prestige of the profession. Instead, students prefer common-practice beliefs that are less important for already mature professionals. This study also highlights the importance of career management in secondary schools and the role of the teacher in this process. As the research data cannot be generalized to the entire population of educators and students, research on career myths and persistent stereotypes regarding career choices needs to be continued in more depth.

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EIROPAS SAVIENĪBAS DALĪBVALSTU PROFESIONĀLĀS IZGLĪTĪBAS UN APMĀCĪBAS REZULTĀTU IETEKMES IZVĒRTĒŠANAS PIEEJU ANALĪZE

Analysis of the Impact Assessment Approaches of Vocational Education and Training Results in European Union Member States

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Abstract. *Work based learning (WBL), introduced in Vocational education and training (VET) system, promises to increase economic competitiveness and development of the knowledge-based economy in Latvia. WBL aims to provide knowledge and understanding regarding types of work in a chosen occupation, build specific competencies needed for work and motivate young people to acquire 21st Century skills for smoother transition from education to sustainable employment and development of their professional career. WBL is closely linked to life-long guidance at all stages of decision making: future occupation or workplace, upskilling or reskilling, acquisition of transferable skills or career management skills. Ensuring effective integration of life-long guidance with WBL three elements are essential: engagement before entering WBL programmes; achievement within WBL to encourage participation and successful completion; transition to work after graduating VET supported by personalised follow-up and on-going career support.*

WBL is a new approach for most European Union Member States (EU MS), ensuring a positive impact on employment perspectives for students by providing skills demanded by employers and an acceptable level of VET quality, allowing the VET graduate to find a job quickly or obtain a well-paid job. The European Quality Assurance Reference Framework for VET (EQAVET) is an EU instrument to improve the systems of Quality Assurance (QA) in VET, based on a quality cycle and on using performance indicators and self-assessment. EQAVET proposes indicators that could be utilized to monitor VET provision and for peer reviews between EU MS. Most indicators serve as VET performance indicators, however some characterize VET impact on the graduate's transition to work. Analysis of the positive and negative aspects of VET QA indicators could be the basis for development of WBL and support life-long learning strategies.

Keywords: *life-long guidance, reskilling, sustainable employability, 21st Century skills, upskilling, work-based learning, quality assurance.*

Ievads

Introduction

Pēdējo gadu laikā pasaules valstīs, tai skaitā Eiropas Savienības (ES) dalībvalstīs raksturīgas straujas darbaspēka pieprasījuma izmaiņas gan attiecībā uz pieprasītajām profesijām, gan arī profesijas, profesiju grupu vai nozaru ietvaros pieprasītajām prasmēm. Turklāt darba devēji vēlas piesaistīt darbam uzņēmumā vai iestādē darbiniekus, kuriem ir ne vien profesijai raksturīgās specifiskās vai tehniskās prasmes bet arī transversālās prasmes, kas bieži vien pārsniedz mūžizglītības ietvaros noteiktās astoņas pamatprasmes. Papildus izglītības un nodarbinātības politikas dokumentos noteiktajai ES dalībvalstu virzībai uz zaļo pārkārtošanos un digitalizāciju, 2020. gada noslēgumā kļuva skaidrs, ka Covid-19 pandēmija ne tikai negatīvi ietekmēs daudzu valstu iedzīvotāju nodarbināmību bet arī aktualizēs nepieciešamību veikt apgūstamo prasmju strauju pārorientāciju, vienlaikus skarot izglītības un darba tirgus ekosistēmas. Pasaules un ES dalībvalstu ekonomiskās attīstības scenāriji un veiktie darba tirgus pētījumi Covid-19 ietekmes kontekstā liecina par daudzu profesiju izzušanas un daudzu profesiju kardinālu izmaiņu perspektīvām tuvāko piecu gadu laikā.

Lai stiprinātu profesionālās izglītības un apmācības (PIA) sistēmas spēju reaģēt uz paredzamajām darba tirgus izmaiņām ES dalībvalstu ietvaros un arī pasaules ekonomiskajā telpā, īpašu nozīmi iegūst PIA kvalitāte, kas rezultējas tās izglītības ieguvēju nodarbinātībā un profesionālās karjeras attīstībā. Šajos apstākļos ir nepieciešama mūžilga karjeras atbalsta sistēmas tālāka attīstība, kas sekmē cilvēka spēju pašam vadīt savu karjeru visas dzīves garumā, tai skaitā pieņemt pareizos lēmumus kvalifikācijas paaugstināšanā, pārkvalifikācijā vai tālākizglītībā, tādējādi veicinot viņa spēju adaptēties darba tirgus mainīgo prasību apstākļos.

Šī raksta mērķis ir identificēt PIA rezultātu ietekmes izvērtēšanas pieeju un instrumentu pozitīvos un negatīvos aspektus darba tirgū pieprasīta darbaspēka sagatavošanā, analizējot PIA un nodarbinātības ekosistēmu sasaisti ar mūžilga karjeras atbalsta sistēmu. Analīze tiek veikta, izvēloties PIA jauno īstenošanas veidu – darba vidē balstītas mācības (DVBM) – un izpētot Latvijas situāciju pētījuma mērķim atbilstīgo rādītāju, kas raksturo ES dalībvalstu sasniegumus, sasniegšanā. Izvirzītā mērķa sasniegšanai tiek pielietota trīs zemāk minēto pētījumu un šiem pētījumiem atbilstīgo zinātnisko rakstu kvalitatīvā kontentanalīze.

**Literatūras apskats par starptautisko pieredzi
PIA rezultātu izvērtēšanā
*Literature Review on International Experience
in Evaluation VET Outcomes***

Darba ietvaros tiek apskatīti trīs pētījumu rezultāti un to savstarpējā mijiedarbība PIA absolventu sekmīgas nodarbinātības kontekstā, fokusējoties uz PIA kvalitāti un ietekmi un šī izglītības līmeņa rezultātus raksturojošajiem rādītājiem, lai noteiktu PIA spēju reaģēt uz darba tirgus jaunajiem izaicinājumiem, tai skaitā, sekmēt aktuālo transversālo prasmju apguvi, kuras Pasaules Ekonomikas Forums ir noteicis par 15 būtiskākajām prasmēm 2025. gadam (World Economic Forum, 2020) un/ vai 21. gadsimta 12 prasmes izglītības iestādes absolventa veiksmīgai karjerai (Ananiadou & Claro, 2009).

2010. gada decembrī pieņemtais Briges komunikē paredz ciešāku Eiropas sadarbību PIA jomā, nosakot stratēģisko mērķi līdzdalības valstu PIA sniedzējiem līdz 2015. gada beigām valsts līmenī izveidot kopīgu, Eiropas kvalitātes nodrošināšanas ietvarstruktūru profesionālajā izglītībā un apmācībā/ tālākizglītībā (EQAVET) PIA kvalitātes nodrošināšanas sistēmā. EQAVET kontekstā profesionālās izglītības kvalitātes sistēmas ieviešanai būtiska ir mācību rezultātos balstīta zināšanu, prasmju un kompetenču novērtēšanas sistēma. EQAVET pamatā ir PIA kvalitātes piemērotākā modeļa izveide, nosakot pamatprincipus kvalitātes nodrošināšanai praksē, iegūto prasmju novērtēšanā, apstiprināšanā un atzīšanā un tā ir atsauce uz ES dalībvalstu PIA kvalitātes attīstību un validāciju.

Eiropas kvalitātes nodrošināšanas ietvarstruktūru profesionālajā izglītībā un apmācībā pieņēma Eiropas Parlaments un Padome 2009. gada 18. jūnijā un tas ir viens no Eiropas instrumentiem Eiropas prasmju un kvalifikāciju telpas veidošanai. Viens no galvenajiem EQAVET izveidošanas mērķiem ir palīdzēt Eiropas valstīm turpināt uzlabot PIA sistēmu un paaugstināt jauno speciālistu sagatavošanas kvalitāti. EQAVET tīkls apvieno 33 iesaistīto Eiropas valstu kompetento valsts institūciju un sociālo partneru pārstāvjus un izveidotā institūciju tīkla uzdevums ir turpināt attīstīt EQAVET, kā arī konkrētus instrumentus un pamatnostādnes PIA kvalitātes uzlabošanai valsts līmenī.

2020. gada pirmajā pusē, iesaistot Pasaules Ekonomikas Foruma partnerus tika veikts Pētījums par darbavietu nākotni (Future of Jobs Survey), kura mērķis ir noteikt tendences, kas ietekmē darba tirgu un tehnoloģijas, darba vietas, prasmes un uzdevumus un prognozēt sagaidāmās darbaspēka pārveides laika posmam līdz 2025. gadam. Pētījums ietver arī informāciju par mācību programmām un darbinieku pārkvalificēšanas vajadzību izvērtējumu, kā arī COVID-19 ietekmes uz darba tirgu un uzņēmumu stratēģijām analīzi, kuras

rezultātā secināts, ka nākotnē pieaugs attālinātā darba iespējas, paātrināsies darba procesu digitalizācija un automatizācija un attīstīsies prasmju pilnveides un pārkvalificēšanas, tai skaitā, izglītības iestāžu, digitalizācija (World Economic Forum, 2020).

Pētījumā tika analizētas izvēlētas 26 valstu ekonomiku 11 nozares un tika izstrādātas darba tirgus attīstības prognozes 2025. gadam, kuras liecina, ka līdz 2025. gadam, mainoties darba sadalījumam starp darbiniekiem un tehnoloģijām, 85 miljoni darba vietu samazināsies. Savukārt par 97 miljoniem palielināsies darba vietas, kas vairāk pielāgotas jaunajam darba sadalījumam starp darbiniekiem, tehnoloģijām un algoritmiem, tādējādi izraisot būtiskas izmaiņas jeb prasību pēc jaunām prasmēm jau esošajās profesijās vai jaunu profesiju rašanos (World Economic Forum, 2020). Savukārt, jaunu tehnoloģiju ieviešana un pieaugošais pieprasījums pēc jauniem produktiem, kas izsauc jaunu profesiju rašanās nepieciešamību, veicina pieprasījumu pēc videi draudzīgām darbavietām, izmaiņām inženierzinātnēs, digitālajās tehnoloģijās un darbinieku prasmēs.

Pētījums noteica arī 15 pieprasītākās prasmes 2025. gadam (World Economic Forum, 2020), no kurām par trīs visnozīmīgākajām prasmēm ir atzītas kritiskā domāšana un analīze, problēmu risināšana un jauna prasme pašpārvaldība, kas sevī ietver prasmi aktīvi mācīties, noturību pret stresu un elastīgi reaģēt uz izmaiņām. Tehnoloģiju izmantošana un attīstība prasmju nozīmības vērtējumā ieņem ceturto vietu.

Tiek uzskatīts (Hrmo, Miština, & Krištofiaková, 2016), ka profesionālās izglītības un apmācības galvenais izaicinājums ir apmierināt indivīdu un darba tirgus mainīgās prasmju vajadzības saskaņā ar mūžizglītības principiem. Citu profesionālās izglītības analītiķu skatījums (Sylte, 2020) norāda, ka profesionālajā izglītībā pastāv divas galvenās problēmas - zems atbilstības un saskaņotības līmenis starp izglītības programmas saturu un kompetenču attīstīšanu darba dzīvē, ar kompetenci šai gadījumā izprotot attiecīgās zināšanas un prasmes, kā arī spēju tās pielietot jeb profesionālo attieksmi. Lai risinātu būtiskās problēmas, ar kurām šodien saskaras darba tirgus, ES dalībvalstu valdībām ir jāīsteno holistiska pieeja, izveidojot sasaisti starp izglītības iestādēm un pieprasītajām prasmēm, darbiniekiem un darba devējiem un rosinot sadarbību ar nodarbinātības aģentūrām attiecīgās valsts un lokālā līmenī. Arī PIA absolvents līdzīgi kā ikviens darbinieks ir motivēts līdzdarboties. Ja darba tirgus straujo izmaiņu laikā darbinieku iegūtās prasmes ir statiskas, paliekot tādā pašā līmenī kā absolvējot izglītības iestādi vai darba vietā pieslīpējot vienīgi tehniskās prasmes, viņiem pastāv augsts risks zaudēt darbu.

Pētījums “Mūžilga karjeras atbalsta politika un prakse ES: tendences, izaicinājumi un iespējas” (Lifelong guidance policy and practice in the EU: trends, challenges and opportunities) tika veikts 2019. gadā, iesaistot tajā ES

dalībvalstis. Pētījums ietver mūžilga karjeras atbalsta 11 iezīmes: mūžilga karjeras atbalsta likumdošanu, stratēģisko līderību, virkni karjeras atbalsta kontekstu, mūžilga karjeras atbalsts un mūžizglītības stratēģijas un politikas, koordināciju un sadarbību, karjeras atbalsta nodrošināšanu, darba tirgus informāciju, informācijas komunikāciju tehnoloģiju (IKT) stratēģiju, IKT operacionalizēšanu, profesionalizāciju, pierādījumus par mūžilga karjeras atbalsta ietekmi. Viens no pētījuma pamatjautājumiem ir kā mūžilgs karjeras atbalsts ietekmēs šī atbalsta lietotāja pāreju no izglītības sistēmas uz darba tirgu un mūžizglītību (European Commission, 2020). Pētījumam izvirzītais jautājums ir aktuāls Pasaules Ekonomiskā Foruma prognozēto darbaspēka izmaiņu kontekstā un arī saistībā ar sagaidāmo ekonomikas un profesiju pārstrukturizāciju post- Covid periodā

Pētījuma rezultāti liecina, ka mūžilga karjeras atbalsta ekosistēmā ir notikušas izmaiņas, tās pakalpojumi tiek labāk pielāgoti lietotāju vajadzībām, turklāt pakalpojumu sniegšanā lielā mērā tiek izmantotas digitālās tehnoloģijas. Otrs aspekts, kas izsauca šīs ekosistēmas izmaiņas, ir mūžilga karjeras atbalsta sistēmas nepieciešamība reaģēt uz darba tirgus izmaiņām, jaunu tehnoloģiju ieviešanu, politiku izmaiņām, darba tirgus informācijas pieejamību, finansējuma pieejamību un citiem mazāk būtiskiem faktoriem. Pētījuma rezultāti deva iespēju secināt, ka ES līmenī mūžilgs karjeras atbalsts ir izglītības, tālākizglītības, jaunatnes, nodarbinātības un sociālo lietu politiku kopīga atbildība. ES dalībvalstīs situācija ir visai atšķirīga, pārsvarā valstu mūžilga karjeras atbalsta normas iestrādātas izglītības vai nodarbinātības likumdošanā un tikai dažās dalībvalstīs ir izstrādāti mūžilga karjeras atbalsta tiesību akti (European Commission, 2020).

Lai stiprinātu profesionālās izglītības un apmācības (PIA) sistēmas spēju reaģēt uz paredzamajām darba tirgus izmaiņām ES dalībvalstu ietvaros un arī pasaules ekonomiskajā telpā, īpašu nozīmi iegūst PIA kvalitāte, kas rezultējas ne tikai izglītojamā pozitīvā vērtējumā, noslēdzot izglītības ieguvu PIA sistēmā, bet, galvenokārt, izglītības ieguvēju nodarbinātībā un profesionālās karjeras attīstībā. PIA absolventu ilgtspējīgu nodarbinātību un profesionālās karjeras attīstību iespējams stiprināt ar mūžilga karjeras atbalsta palīdzību, kas sekmēs izglītojamo, absolventu, jauno speciālistu un arī pieredzējušo darbinieku spēju pieņemt pareizus lēmumus par izglītības ieguvu, jaunu prasmju apguvi mūžizglītības ietvaros, kvalifikācijas paaugstināšanu vai pilnīgu pārkvalificēšanos, nodarbošanās un darba vietas izvēli, darba vietas maiņu, iespēju attīstīt profesionālo karjeru. Karjeras vadības prasmju apguve ir uzsākama jau obligātās izglītības ietvaros un īpaši būtiski ir nodrošināt karjeras vadības prasmes apguvi PIA sistēmā.

Pētījumu par profesionālās izglītības un apmācības rezultātu ietekmes izvērtēšanas pieejām īss apskats
Brief Overview of Studies on Approaches to the Impact of Vocational Education and Training

Pētījums par ES PIA instrumentiem (EQAVET un ECVET) (Study on EU VET instruments (EQAVET and ECVET)) tika veikts 2018. gadā un tā mērķis ir izvērtēt Eiropas kvalitātes nodrošināšanas ietvarstruktūras profesionālajā izglītībā un apmācībā/ tālākizglītībā (EQAVET) un Eiropas kredītpunktu sistēma profesionālajā izglītībā un profesionālajā tālākizglītībā (ECVET) ietekmi uz politikas attīstību valstu un Eiropas līmenī, kā arī to saistību ar citiem ES instrumentiem kā Eiropas kvalifikācijas ietvarstruktūru (EQF) EUROPASS un Validācijas ieteikumiem, un apsvērt, vai un kādā veidā instrumenti var pamatoties līdzšinējos ieteikumos un maksimāli palielināt to ietekmi nākotnē (European Commission, 2019).

Šī raksta ietvaros analizēti PIA instrumenta EQAVET divi izvēlētie kvalitātes rādītāji, kas vienlaikus raksturo gan PIA kvalitāti, gan rezultātus un tālāk pielietojami PIA ietekmes uz izglītības iestādes absolventu nodarbināmības situācijas izpēti un, attīstot šos rādītājus, izmantojami kā pamats absolventu profesionālās karjeras attīstības turpmākai izpētei. Līdz šim EQAVET rādītāji galvenokārt tiek pielietoti sākotnējās PIA kvalitātes vērtēšanā, DVBM kvalitātes vērtēšanā tiek izmantoti mazāk, kas skaidrojams ar to, ka DVBM īstenošana daudzās ES dalībvalstīs ir uzsākta salīdzinoši nesen un nav nostiprinājusies kvalitātes rādītāju pielietošanas prakse to izglītības iestāžu lielā skaita dēļ, kas pakāpeniski iesaistās DVBM.

EQAVET ieteikumi ietver izglītības pakalpojumu sniedzēja līmeņa un izglītības sistēmas līmeņa indikatīvos deskriptorus un kvalitātes kritērijus četros kvalitātes cikla (plānošana, īstenošana, novērtēšana un pārskatīšana) posmos. EQAVET ieteikumā ierosināts pielietot 10 kopīgus rādītājus un saistītos deskriptorus PIA nodrošināšanas uzraudzībai. Visās ES dalībvalstīs ieteikto rādītāju lietošana ir brīvprātīga. PIA kvalitātes rādītāji nosaka elementus saistībā ar PIA izglītības programmu plānošanu, īstenošanu, izstrādi un rezultātiem. Savukārt, deskriptori atbalsta izglītības pakalpojumu plānotājus un izglītības iestādes kvalitātes cikla īstenošanā un pašvērtējuma veikšanā (European Commission, 2019).

Pētījuma par ES PIA instrumentiem (EQAVET un ECVET) analīze apstiprina, ka pusei pētījumā ietvertu valstu PIA sistēmās ir pieejami indikatīvi rādītāji visos četros kvalitātes cikla posmos, turklāt 69 % valstu (22 valstis) PIA sistēmas plānošanas posmā vienmēr izmanto indikatīvus deskriptorus, 66 % (21 valsts) izmanto indikatīvus deskriptorus īstenošanas posmā, 56 % (18 valstis)

pielieto tos novērtēšanas posmā un 53 % (17 valstis) lieto indikatīvos deskriptorus pārskatīšanas posmā (European Commission, 2019).

1.tabula. Izvēlētie EQAVET rezultātu rādītāji, to pielietojuma raksturojums

(European Commission, 2019)

Table 1 Selected EQAVET Result Indicators, Characteristics of Their Application

(European Commission, 2019)

Rādītāja numurs/ nosaukums	Pielietojuma raksturojums (pielietojuma līmenis, izaicinājumi/ iespējas)
<i>Raksturo PIA rezultātus</i>	
<p>Rādītājs #5 <i>Darbiekārtošanās līmenis pēc PIA programmu pabeigšanas:</i></p> <p>a) PIA absolventu darbība noteiktā laika periodā pēc mācību beigšanas atbilstoši programmas veidam un individuāliem kritērijiem</p> <p>b) Nodarbināto absolventu īpatsvars noteiktā laika periodā pēc mācību pabeigšanas atbilstoši programmas veidam un individuāliem kritērijiem</p>	<p>Rezultāta rādītājs, kas: atbalsta kvalitātes uzlabošanu <u>PIA politikas līmenī</u>, atbalsta nodarbinātību, uzlabo PIA spēju reaģēt uz mainīgajām prasībām darba tirgū un atbalsta pielāgotas apmācības izmantojams kvalitātes ciklā PIA plānošanai, novērtēšanai un pārskatīšanai. Noderīgs budžeta mērķu noteikšanai.</p> <p>Datu avoti: PIA iestādes (absolventu dati). PIA absolventi. Darba devēji. Augstākās izglītības iestādes.</p>
<p>Nozīmīgākie izaicinājumi rādītāja pielietošanā:</p> <ul style="list-style-type: none"> – nepieciešama PIA absolventu aptaujas veikšana, kas ir resursietilpīgi un dārgi. – dalībvalsts neiegūst informāciju regulāri, tikai atsevišķu aptauju/ pētījumu veidā. – jāievēro personas datu aizsardzība. – apgrūtināta datu salīdzināšana, jo tie netiek iegūti noteiktā periodiskumā. <p>Viens no retāk dalībvalstu kopēji pielietotajiem rādītājiem, it īpaši 5b rādītājs, kas sākotnējā profesionālajā izglītībā regulāri tiek lietots tikai 3 dalībvalstīs: Beļģija (fr), Čehija, Slovākija.</p>	
<p>Rādītājs #6 <i>Iegūto prasmju izmantošana darba vietā:</i></p> <p>a) Informācija par apgūtajām profesijām pēc PIA programmas pabeigšanas atbilstoši programmas veidam un individuāliem kritērijiem.</p>	<p>Rezultāta rādītājs, kas: atbalsta kvalitātes uzlabošanu <u>PIA politikas līmenī</u>, atbalsta PIA absolventu nodarbināmību, uzlabo un pielāgo PIA procesa un PIA absolventu, jo īpaši nelabvēlīgā situācijā esošo izglītojamo, spēju reaģēt uz mainīgajām darba tirgus prasībām. izmantojams kvalitātes ciklā PIA plānošanai, īstenošanai, novērtēšanai un pārskatīšanai.</p> <p>Datu avoti:</p>

b)	Da	PIA iestādes (absolventu dati).
rba devēju un PIA absolventu apmierinātības līmenis ar PIA absolventa apgūtajām prasmēm/ kompetencēm.		PIA absolventi. Darba devēji.
Nozīmīgākie izaicinājumi rādītāja pielietošanā:		
– datu iegūšanai nepieciešama resursietilpīgu un dārgu aptauju veikšana.		
– darba devēju iesaistīšana aptaujās var radīt nepamatotu slogu darba devējiem.		
– grūtības atrast savstarpējo saistību starp apmācības jomu/kvalifikāciju un saimnieciskās darbības nozari.		
– dalībvalsts neiegūst informāciju regulāri, tikai atsevišķu aptauju/ pētījumu veidā.		
– jāievēro personas datu aizsardzība.		
– apgrūtināta datu salīdzināšana, jo tie netiek iegūti noteiktā periodiskumā.		
Viens no retāk dalībvalstu kopēji pielietotajiem rādītājiem tālākizglītībā, rādītājs regulāri tiek lietots tikai 7 dalībvalstīs: Kipra, Lietuva, Ungārija, Austrija, Rumānija, Slovākija, Somija.		

Avots: autores veidota, izmantojot European Commission, 2019.

Kā redzams 1.tabulā viena no nedaudzām ES dalībvalstīm, kas regulāri veic PIA rezultātu izvērtēšanu, pielietojot EQAVET piedāvātos rādītājus “Darbiekārtošanās līmenis pēc PIA programmu pabeigšanas” un “Iegūto prasmju izmantošana darba vietā”, ir Slovākija. Analizējot Slovēnijas PIA absolventu pāreju no izglītības sistēmas uz darba tirgu, ir konstatējams, ka viens no pārejas veiksmes faktoriem ir darba tirgū pieprasīto transversālo prasmju apguve profesionālās izglītības ieguves laikā. Šis pieejas efektivitāti apstiprina analīze par komunikācijas un prezentēšanas prasmju apguves, kas Pasaules Ekonomikas Foruma ieskatā ieņem ceturto un piekto vietu darba tirgus pieprasīto 15 prasmju vidū (World Economic Forum, 2020), ietekmi uz profesionālās izglītības iestāžu absolventu spēju iekārtoties darbā (Hrmo, Miština, & Krištofiaková, 2016).

EQAVET pētījuma ietvaros veiktā analīze par Latvijas situāciju kvalitātes izvērtēšanā (European Commission, 2019), liecina, ka PIA sistēmas līmenī tiek veikts kvalitātes pašvērtējums un neatkarīgais novērtējums. PIA kvalitātes pašvērtējumu veic PIA sniedzēji, pielietojot vienotu metodoloģiju pašnovērtējuma veikšanai. Daži no piedāvātajiem rādītājiem tiek lietoti profesionālās pamatizglītības, daži profesionālās vidējās izglītības kvalitātes vērtēšanai, galvenokārt, saistībā ar izglītības programmu, izglītojamo mācīšanas un mācīšanās, izglītojamo atbalstu, resursu un darba organizācijas, pārvaldības un kvalitātes novērtēšanu. Profesionālās pamatizglītības un profesionālās vidējās izglītības iestāžu un to programmu ārējais jeb neatkarīgais novērtējums Latvijā tiek veikts reizi sešos gados. Valsts izglītības kvalitātes dienests organizē

izglītības iestāžu kvalitātes novērtēšanu vai akreditāciju, kas tiek veikta, pamatojoties uz ekspertu komisijas ziņojumu un pielietojot atbilstošas procedūras un prasības.

Viens no pēdējā laika aktuālajiem PIA veidiem ES dalībvalstīs ir Darba vidē balstītas mācības (DVBM), kas apvieno praktiskās mācības darba vietā ar profesionālās izglītības iegūvi izglītības iestādē. Šī PIA veida ieviešanas pamatā ir nepieciešamība nodrošināt darba tirgu ar kvalificētu darbaspēku, kā arī veicināt PIA absolventu darbiekārtošanos, tādēļ būtiska ir DVBM atbilstība darba tirgus pieprasījumam un DVBM kvalitātes nodrošināšana. Izglītības un zinātnes ministrijas 2014. gada Informatīvais ziņojums “Par darba vidē balstītu mācību īstenošanas iespējām Latvijas profesionālās izglītības attīstības kontekstā” bija sākums DVBM ieviešanai Latvijā. Sākotnēji 2013./2014. mācību gadā DVBM tika īstenota pilotprojekta veidā, kas deva iespēju testēt šīs pieejas piemērotību Latvijā un identificēt likumdošanas un organizatoriskās nepilnības, kas novēršamas pirms DVBM ieviešanas Latvijas PIA sistēmā. DVBM īstenošana Latvijā tika uzsākta 2016. gadā pēc visu attiecīgo likumdošanas aktu pieņemšanas.

DVBM politikas mērķi ir vērsti uz zināšanu ekonomiku un ekonomikas izaugsmi. Savukārt, mūžizglītības mērķi ir sniegt atbalstu cilvēku integrācijai un attīstībai sociālekonomiskā struktūrā. Tādējādi abu jomu politikas savstarpēji mijiedarbojas un šai situācijā mūžilga karjeras atbalsta sistēma var kļūt sasaisti starp profesionālās izglītības un darba tirgus ekosistēmu dalībnieku vajadzībām un veicināt abu iepriekšminēto politiku mērķu sasniegšanu, vienlaikus arī sniedzot nepieciešamās prasmes PIA absolventiem un darbiniekiem nodarbināmības stiprināšanā un veiksmīgas profesionālās karjeras attīstībā. Atgriežoties pie 1. tabulā minētajiem rādītājiem #5 “Darbiekārtošanās līmenis pēc PIA programmu pabeigšanas” un #6 “Iegūto prasmju izmantošana darba vietā” ir konstatējama abu rādītāju cieša sasaiste ar PIA mērķi, kas vienkāršoti izsakāms ar spēju sagatavot darba tirgum vajadzīgu speciālistu, kura nodarbināmību raksturo gan darbiekārtošanās līmenis un daba vietas saglabāšana noteiktu laika periodu pēc iekārtošanās darbā, gan arī izglītības iestādē, un DVBM gadījumā arī strādājot pie darba devēja, iegūto prasmju izmantošana darba vietā. DVBM ir viens no mācekļības veidiem, kas analizēti attiecībā uz profesionālās izglītības iestādes absolventa piemērotību darbam, fokusējoties uz diviem aspektiem – apmierinātība ar darbu un profesionālās karjeras izaugsme. Analīzes rezultātā secināts (Diedrich, Neubauer, & Ortner, 2018), ka mācekļības panākumus kopumā un indivīda piemērotību noteiktam darbam, viņa apmierinātību ar darbu un līdz ar to profesionālos panākumus nosaka gan kognitīvās spējas un personība, gan arī profesionālās intereses. Savukārt, indivīdu, tai skaitā profesionālās izglītības sistēmas abiturientu vai

absolventu, sociāli emocionālo kompetenču un interešu noteikšanā ievērojama loma ir mūžilga karjeras atbalsta sistēmai.

Pētījumā “Mūžilga karjeras atbalsta politika un prakse ES: tendences, izaicinājumi un iespējas” kā mūžilga karjeras atbalsta sistēmas labās prakses piemērs ir minēts Latvijas Nodarbinātības Valsts Aģentūra (NVA), kas veic ieinteresēto sadarbības partneru koordinēšanu pieaugušo mācīšanās organizēšanai un iedzīvotāju nodarbinātības veicināšanai. NVA filiāles sniedz plašu pakalpojumu spektru pieaugušajiem, tai skaitā informēšanu, palīdzību karjeras virzībā, darba pieredzi un elastīgu apmācību profesionālās kvalifikācijas iegūšanai (European Commission, 2020).

Lai arī Latvijā izglītojamajiem ir iespēja saņemt profesionālās orientācijas un karjeras konsultāciju pakalpojumus, tomēr mūžilga karjeras atbalsta pakalpojumi nav kļuvuši par PIA sastāvdaļu, kaut arī šie pakalpojumi varētu veicināt izglītojamo karjeras vadības prasmju apguvi, kas atvieglotu PIA absolventu pāreju no izglītības sistēmas uz nodarbinātību un veicinātu nodarbinātības ilgspēju. Ne mazāk svarīgs faktors ir tas, ka mūžilga karjeras atbalsta pakalpojumi varētu veidot saiti starp darba devējiem un izglītības iestādēm, tādējādi veicinot izglītības sniedzēju iespējas operatīvāk reaģēt uz darba tirgus pieprasījuma izmaiņām gan profesiju, gan prasmju griezumā. Mūžilgs karjeras atbalsts ir saistīts ar izglītību, apmācību, nodarbinātību un sociālo iekļaušanu, cilvēkresursu attīstību un dzīves un darba apstākļu uzlabošanu, tādējādi skarot visas cilvēkam svarīgās sfēras dažādos dzīves posmos.

Mūžilga karjeras atbalsta pakalpojumu ietvaros būtu lietderīgi PIA sistēmas izglītojamajiem dot iespēju apgūt karjeras vadības prasmes, kas izdarāms izglītības programmā integrēta “Karjeras vadības” moduļa veidā. Pēc moduļa apgūšanas, izglītojamajam apgūstot darba prasmes DVBM ietvaros, viņam būtu iespēja apgūtās karjeras vadības prasmes testēt un uzlabot ikdienas saskarē ar darba devēju. Tādējādi izglītojamais būtu labāk sagatavots darba uzsākšanai pēc PIA absolvēšanas. Vienlaikus tiktu dots ieguldījums EQAVET rādītāju #5 un #6 uzlabošanā. Tādējādi ir sasniedzama ilgtermiņa ietekme uz PIA absolventu ilgspējīgu nodarbinātību un spēju adaptēties darba tirgus prasību izmaiņu gadījumā, tai skaitā gatavību apgūt Pasaules Ekonomikas Foruma izvirzītās 15 būtiskās prasmes 2025. gadam vai 21. gadsimta 12 prasmes, un sekmīgi virzīt savu karjeru mainīgā darba tirgus apstākļos.

Būtiski saistīt DVBM ar mūžilga karjeras atbalsta pakalpojumiem arī tādēļ, ka gan izglītojamo praktisko iemaņu apguve, gan mūžizglītības ietvaros apgūstamās pamatprasmes un darba tirgū pieprasītās transversālās prasmes atbilst abu darba tirgū iesaistīto pušu – darbinieku un darba devēju – vajadzībām. Mūžilga karjeras atbalsta uzdevums ir stiprināt spēju līdzsvarot izglītības un darba tirgus iespējas un tuvināt izglītības sistēmas piedāvājumu

darba tirgus prasībām. Tomēr galvenais izglītības sistēmas uzdevums šai situācijā ir sagatavot izglītojamo dažādiem darba tirgus izaicinājumiem, izveidot un stiprināt izglītojamā prasmes un spēju patstāvīgi pieņemt darba tirgus situācijas izmaiņām atbilstošus lēmumus, stiprinot viņa prasmi pašam virzīt savu profesionālo karjeru.

Secinājumi **Conclusions**

Darba tirgus straujās izmaiņas un ekonomikas pārstrukturēšanās, tai skaitā, saistībā ar post- Covid sagaidāmo ietekmi, rosina veidot ciešāku sadarbību starp izglītības un nodarbinātības ekosistēmām un sadarbības partneriem.

ES jaunā politika nodarbinātības un izglītības jomā ir vērsta uz digitālo prasmju stiprināšanu un videi draudzīgu jeb zaļo ekonomiku. Līdztekus zināmajām un lielā mērā akceptētajām prasībām apgūt Mūžizglītības memorandā noteiktās pamatprasmes pēdējo gadu laikā ir identificētas 12 prasmes, kas nepieciešamas studentiem veiksmīgas karjeras izveidei un nosauktas par 21. gadsimta prasmēm. 2020. gadā jau Covid-19 pandēmijas sagaidāmās ietekmes izvērtēšanas kontekstā Pasaules Ekonomikas Forums izvirzīja 15 būtiskās prasmes 2025. gadam, kas nepieciešamas darba tirgū.

Aizvien sarežģītāka ir jauniešu pāreja no izglītības sistēmas uz veiksmīgu nodarbinātību, spēja ilgstoši strādāt vai veidot veiksmīgu profesionālo karjeru. PIA kvalitāte un spēja reaģēt uz mainīgajām darba tirgus prasībām, kā arī izglītojamo gatavība apgūt ne vien ar darbu saistītās profesionālās prasmes bet arī darba tirgū pieprasītās pamatprasmes un transversālās prasmes, nosaka viņu iespējas iekārtoties darbā, uzsākt pašnodarbinātību vai uzņēmējdarbību.

Lielu nozīmi PIA absolventu ilgtspējīgas nodarbinātības veicināšanā un viņu profesionālās karjeras attīstībā iegūst karjeras vadības prasmju apguve, kas īstenojama iekļaujot mūžilga karjeras atbalsta pakalpojumus profesionālajā izglītībā un apmācībā/ tālākizglītībā, tai skaitā, arī darba vidē balstītās mācībās.

Summary

Rapid changes in the labour market and economic restructuring, including the expected impact resulting from Covid, encourage closer cooperation between education and employment ecosystems and labour market stakeholders.

The new EU policy on employment and education is aimed at strengthening digital skills and green transformation. In addition to the well-known and largely accepted requirements for acquiring basic skills as defined in the Memorandum on Lifelong Learning, 12 necessary skills that today's students need to succeed in their careers referred to as the skills for the 21st century have been identified in recent years. In 2020, in the context of the

evaluation of the expected impact of the Covid-19 pandemic, the World Economic Forum defined top-15 skills for 2025.

Two selected EQAVET's quality indicators #5 "Placement rate in VET programmes" and #6 "Utilisation of acquired skills at the workplace" describe both the quality and goals achieved by VET and should be used further to study the employability of VET graduates, including those who participated in WBL. The aforementioned should also be used as a basis for further research into the career development of VET graduates.

Career management skills play an important role in promoting sustainable employability of VET graduates and in their career development, therefore, lifelong career guidance which includes work-based learning should be introduced in VET.

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ESTONIAN YOUTH WORK EXPERTS PROFESSIONAL GROWTH: CASES STUDY

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Abstract. *Estonian youth work (YW) has been in development almost 30 years. In the last more than 15 years the same trends have been observed in the studies in terms of professional development: the shortage of employees with professional education and workers high mobility. At the same time, the progressive decisions and regulations made in Estonia, on the field of European YW are exemplary. Thus, the prerequisites for professional YW were created and experts in the field have also developed.*

The aim of research was to give an overview of the stories of becoming as experts. Semi-structured interviews were compiled in 2019. Special focus was on the professional growth in the content of life story. The study revealed both – randomness entry into YW, but various supporting external aspects (active school life, supportive community, camps). However, the most important were the personal factors - motivation, consistency, entrepreneurship, courage, YW studies, participation in (foreign) projects, mission. Professional knowledge and skills supported mostly the development from a novice specialist into an advanced employee and expert. Commitment, autonomy were the main work-load impact factors. The desire to work with young people has brought some retired youth workers back to YW. Horizontal career was limited but usual.

Keywords: *Estonia, expert, professional growth, youth worker.*

Introduction

The OSKA report “Work and Skills 2025” (Pärna, 2018) stated that the development of Estonia and organizations is hampered by the constant decrease in the number of employees; the environment in which organizations operated was extremely fast-changing. Continuous learning for both organizations and individuals was essential to cope with change. This research focuses on becoming an expert through the continuum of working life, explaining the factors influencing YW and youth worker. As the conditions for the existence of professionals have been created in YW and high expectations for the field, it was appropriated to analyze the success stories related to professional growth from youth workers to experts.

Berliner presented development model of competency levels, treats the professional development as long term, complex process, distinguishing between the five stages of development of the professional staff, which are also regarded in the context of the professional development of the youth worker. Professional growth supports workers' job performance. That is a continuous learning process to acquire the knowledge and skills needed for working life, which will be used more competently to meet the changing requirements of the agency (Veigel, 2015; Ruohotie, 2005)

During 2005-2019 various studies explained the high mobility of Estonia youth workers in youth centres and shortage of personnel with special education. Considering the above, professional youth workers will need long-term employment in the sector to develop their skills (Veigel, 2020; Conradsen, 2017; Veigel, 2015). In order to ensure the quality and development of YW, the youth worker should constantly improved himself in addition to his main job, a so-called continuous process of self-improvement. Thus, the focus was also on the lifelong learning strategy. The research problem was contradiction: due the frequent changes in YW staff, but good results in YW regulations and recognition at European level, was necessary to study the youth workers' professional growth, exactly meaningful patterns and development at the expert level.

The aim of this research was to give an overview of the stories of becoming as YW experts. The key questions were: (1) which characterizes entry into YW and the development of a novice worker? (2) What were the significant aspects of working as a youth worker? (3) What were the expert's strategies, goals and future vision?

Literature Review

It is important to know that YW has been taught in Estonia since 1992. First at the Tallinn Pedagogical College. Today at Tallinn University, where in addition to the applied higher education of a youth worker, you can obtain a master's degree in the field of YW organization. But long-term research in Estonia showed that many youth workers were without professional education (Käger, Kivistik, & Tatar, 2017), their professional identity and professional development, as well as professional skills, were questionable.

Possibilities of becoming a youth worker are very different. Sapin (2012) added learning through informal and non-formal learning to the formal education of a youth worker. Emphasis was placed on the possibility of getting a student, a hobby enthusiast in informal learning, to gain access to YW. Also important was the role of non-formal learning: training, workshops, networking,

self-improvement. Formal learning curricula, courses based on structured curricula as starting points for learning youth workers.

Youth workers started work for reasons, because it seemed like a routine-free, versatile, still lesser-known profession, interesting work with young people. They started with an enthusiasm, but then, as expected, it became clear that dealing with the content of YW and it is based on important professional level knowledge and training. The work of a youth worker remained hard as it is multi-functional, full of various activities, emotional and physical tension. The requirements to the youth worker's professional level, activity and behaviour were high and very difficult to meet due to the peculiarities of this profession. (Veigel, 2019). However, this study focused on becoming an expert in YW.

On the level of expertise (expert level) people act more quickly, flexible and smoothly. Experts are able to intuitively perceive situations and make the right decisions without any further analysis or discussion. The simplest methods of teaching (action) operations are carried out automatically, leaving more time to immerse themselves in the most important problems (Okas et al., 2014). According to Berliner competency levels of the development model more adept worker is the one of 4-5 years of service. As there is a large mobility in the YW sector, according to this model the number of youth workers reached the last three steps (competent, experienced employee, expert) is obviously small. Youth worker occupational levels 4 and 6 correspond to the first two steps of the described model specifications. However, if the daily practice of the youth worker professional level 6 was in the authors' opinion, or rather, as expected, a competent or experienced employee level and level 7 explained / considered by the expert level (Veigel, 2015). It turned out that, YW experts must express about work achievements, their needs confidently and more loudly. Working in the local government set a certain framework for experts, who understood the content of the YW, but it was hard to training and mentoring many new colleagues constantly. Collegiality and organizational culture supported employees, but attention should be paid more to the other elements of professional growth (personal and work-load factors), too (Veigel, 2020).

Any professional identity is formed by the combination of studies, work experience and the environment (Gibson, Dollahide, & Moss, 2010) and perhaps the beginning of its' formation may be previously conscious information and experience (Johnson et al., 2012). Professional identity is constantly changing and its' formation begins with becoming a member of the professional community in a social context (learning, communicating) (Van Lankveld et al., 2016; Slay & Smith, 2010) and cooperation. It is important to

understand the professional future perspective. Supporting the development of a professional identity is an important task for experts. They could certainly serve as role models for their nascent colleagues. Experts had a strong professional identity supported by professional development. Most of them worked before as youth workers. Experts understood the content of the field, but it is hard to train and mentoring many new colleagues constantly (Veigel, 2019).

Professional practice is dynamic. Practitioners are constantly shaping their practice by thinking and interpreting, creating and re-engaging (Dall'Alba & Sandberg, 2006). Eraut and Hirsch (2007) demonstrated that the majority professional learning is embedded in normal work. In the reality it is everyday work with thinking about it (reflection), cooperating with their colleagues, sharing their ideas, and improving their own as well as their youth performance. It meant that colleagues were absolutely necessary, but in Estonia many youth workers worked alone or half of work-time. Professional growth basic elements-personality factors, work-load and tasks' factors and organizational factors (Ruohotie, 2005) were definitely to be taken into account when considering the development related to the growth of employees, both from a personal and institutional point of view.

The research explained, which characterized entry into YW and the professional development of a novice youth worker; what were the significant aspects of working as a youth worker and in professional growth in continuum to expert level; what kind strategies, goals and future vision experts valued.

Methodology of Research

This research applied a qualitative research strategy, based on a phenomenological approach. For qualitative data collection semi-structured interviews were conducted with 6 Estonian YW experts (2 man, 4 women) individually in 2019. They lasted usually from 1 to 1,5h and were recorded on tape. The interview took place in a social context. Both the interviewer and the interviewee brought to an interview with their past, age, position, expectations and beliefs (Singleton & Straits, 2012) to elaborate on aspects related to professional growth and explain its' different ways. A qualitative research method is justified, because the author investigated peoples' judgments and interpretations of the phenomenon (youth work experts' professional growth and its' influence factors). In the focus of the research was youth work experts' professional growth. The research results briefly described the professional activities and growth of the interviewees (codes I1, etc.). A discussion was then conducted with illustrative examples from the interviews. The anonymity of the sample was ensured. Protecting participants and respecting their right to make

decisions regarding their participation were the core ethical principles guiding the treatment of the participants in the research. Participation was voluntary and all were informed of their right to withdraw at any time without consequences. No sensitive questions were asked. Saturation of the data was achieved.

Research Results

The interviewees had more than 8 years of experience working in YW, three 11-18 years. The following were brief descriptions of the working lives of YW experts (cases I1-I6) to elaborate better on aspects related to professional growth:

I1 - was an active student at school. The study of YW was consciously chosen because it was a new specialty at that time and many electives disciplines seemed very interesting in the curriculum. The internships supported the attachment. He has worked as a youth worker all the time, but in several different youth centers. He twice found it disturbing to see the change in the city's structures when many colleagues left, so the network collapsed. The high mobility of co-workers still disturbs, because together with the manager, he felt like a professional. Evaluates flexible use of time at the agency, possibility of additional work, related to sports activities. Recently, there has been more focus on young people aged 18+, such as movie nights, hikes, etc. The personal influence is the desire to work with young people, to apply experience. Interviewee wanted to work in the youth field in the future. It is selective in terms of training, as there have been many and the same number of (replacement) employees. The professional level of the youth worker is not considered important.

I2 - was an active, good student during school. YW came to his studies by chance, on the recommendation of a friend, because she wanted to study in Tallinn. The studies were interesting, she liked the internships and gave an impetus to stay in the profession. She first started work as a youth worker and considered this period very inspiring, active, because he liked to thought "out of the box", considered the values of YW, analysis, reflection, cooperation, directed paperwork to be in order, a good time planner. Has received recognition. For a few years she was the head of a youth center, but it was difficult to get employees, their great mobility was tiring, it caused outrage. In recent years, she has been working at the local government level as a YW coordinator and continues to work in the field. She had completed master's studies in a related field, the skills of which can be successfully used in youth

work. Consistency, patience, communication skills, project preparation skills, language skills, values (eg healthy lifestyle) were considered supportive.

I3 – at a young age he was an active but rather unsuccessful student. He consciously chose to study YW and values the time he has studied as the best in his life, because he had a positive learning experience. During his professional studies, he was active as a youth leader at home county. Later became a youth worker. Due to the lack of human resources, the organization of events was complicated and willow thoughts remained on paper. The enthusiasm of the young people supported their retention, but from time to time they also did additional work due to the higher demand for salaries. When the head of the youth center became vacant, he started working as a manager, but as the local government did not value the field enough, he left the school as a hobby manager. He liked to work with young people and wanted to continue practicing international and smart YW. Graduated with a master's degree, but was not sure about further work in the field. Saw a great danger of burnout and altruism in YW.

I4 – was an active, funny young person during school time, who studied various professions after basic school, but accidentally she got to learn YW studies. The studies were interesting, but it was easy to learn. She highly appreciated the abundance of internships, internationalization, new acquaintances, does not easily say “no” and did things rather than postponed things. Has worked throughout the period at the local government level, coordinated the field of YW in several areas. Knew the regulations in the youth field very well, but in terms of demanding she had to push herself. Understood that youth workers without special education were often unable to capture the content of the field for quite a long time, considering it rather a moody job. She also called the work that had become routine and a bit boring the intermediate period, which was why she started studying for a master's degree. She was active in a youth workers' organization. Took note of what is happening in the field very calmly, in the future will work in YW.

I5 – was as an active young person, she wanted to start studying YW based on the example of her school's hobby leader. Unfortunately, in the second year of studies, she thought that she already wanted to do practical work and started working as a youth worker in a youth center, which had a very bad reputation in the city, which was walked by a large arc. Personal initiative and possibility to saw the whole picture, supported from friends, she good communication skills, the ability to maked herself heard in the city administration, activity - led to more and more progress. The position of youth workers was added, better payment, co-operation with the police, child protection, the Defense League and other supporters improved, and the culture of young people and organizations

also improved. If was possible, she took on the role of the head of the youth center. A multicultural supportive environment has been created in which young people wanted to come and contribute to activities. Many major events had become a tradition and the community has participated in it. Although half of the professional studies were still done, the youth worker has a professional level of 6. She only saw herself working in YW at the moment.

I6 – as a modest, good student, she was expected to go to university, but could not get in and, on the recommendation of a friend, found her way to study YW. It was a thorough, good, favorite of teachers in specialty studies. The first job was one of the internship bases, where the familiar environment supported the novice employee. Through the guidance of the trainings, young people were better involved. It was good to get along with colleagues. Unfortunately, she left work when the city made structural changes. She started working in a close profession for a few years, but still met with his former “difficult” young people to discuss daily topics and activities in cafes. After a few years, she wanted to start working as a youth worker again, and although the distance between home and work was quite large, she found motivation to work with young people again. The manager highly valued her work, received recognition in the field. She described herself as a rather modest girl. She was a lot involved in trainings and international youth exchanges. Later, if possible, she started working at the local government level. Evaluated the educational goals in YW and was able to realized them through well-managed projects.

Reaching to youth work and specialty studies. The interviewees reached YW either through participation in supported hobbies as a student at school and its' influences (cooperation with the hobby leader, personal activity), or as a random choice in favor of YW studies. / *I was very active during school, I dealt with many things.//The hobby guide suggested that I start learning it./* There were even completely random people there /..because there was no other option.// .. someone else suggested, thought I was suitable for it to the specialty/. For many interviewees YW was important and exciting as a new field./ *Then I just started level studies in youth work and I thought it suited me. /Most youth wanted to start studying in Tallinn /I didn't become a teacher, I started to study youth work.//I didn't want to go to Tartu, because I was as a type of organizer, then my friends also recommended me to start studying YW/.* It turned out that acquiring higher education was very interesting for the majority. /*I liked many subjects, such as psychology, electives, specialties, languages./* One interviewee emphasized, that he had a positive learning experience for the first time as a conscious learner, because he was interested and the cooperation with teachers

was pleasant, professional. */There was also some flexibility, because many people were already at work/.*

In addition to basic professional courses, emphasis was also placed on the abundance of elective studies, psychology and pedagogy, basics of educational sciences, development of language skills, and music studies. Some took part in ERASMUS study abroad, which gave them new acquaintances to engage in further projects and camps abroad. */As the internship bases were voluntary, I also got the confidence that I could go somewhere/.* In addition to school, most of them went to work, mainly as customer service staff, but also as part-time students at a part-time youth center. Four of the interviewees later got an internship base, which was an important supporting factor, when the novice employee was already exposed to an familiar environment. */The job was familiar, many young people too. It was like moving on with your internship./* The youth center did not have a good image, because there were also problematic youth, who sometimes stayed there. */Young people's different motivations, lifestyles, ages and interests have made work difficult./* At the beginning, it was more difficult to distinguish work from one's free time, because the activities were also interesting for oneself and seemed to be "immersed" in them. Sometimes relatives and friends were involved in their own work. */If you organize and are responsible for the events, it is sometimes 24 hours a day/.* There was overwork, which is often the case with camps, events, etc. */There is no working time for them, because the end of the event is a sign ... and then cleaning, etc./.* Not everyone had first a positive experience of cooperation with schools, although young people were the same people. This was especially true in smaller counties. */So far, it's as if we're duplicating events sometimes, and the school's specialist doesn't seem interested in our things. However, young people are the same schoolchildren./* The abundance of training opportunities was positive, which was practiced later in working hours, ie trainers were also selected. */Now I'm already looking at who trains, because there are a lot of offers and there aren't so many manpower resources to train yourself often./* As young people were also graduates of the university, some of the interviewees had problems with self-assertion. Therefore, the so-called favorite age groups also developed, ie some liked to deal with young people at a younger school age more. */Many like younger children... Now we have a time distribution for different ages./* The professional skills acquired in the novice employee (in elective and optional subjects at school), supervision of trainings and camp work, preparation and management of projects became supportive; skills in using different methods, outdoor training and physical activities. */We got a very wide base, on which there were opportunities to move forward, start work, etc./.*

Novice employees were especially varied about the behavioral problems of young people. However, the approaches created for this through involvement had a positive result, shaping the rules, gaining trust. Advice from experienced colleagues or practitioners supported coping. */At the beginning with some young people, you just have to look-watch, gradually gain confidence. Some have to be fined - 1 week, put on./* In general, the oldest age group (18-26 years) is still little involved in youth work. */Some former students help to deal with a film club and like to great the projects for older youngsters./*

Transformation from a novice employee to an advanced employee. As working time and experience increased, strategies, approaches and more strengths emerged, including favorite activities. In general, all interviewees thought that they had rather pleasant colleagues, with whom they organized interesting events and created conditions to support the development of young people. */If in the past some people were afraid to walk from this street late at night, now it is safe and the surroundings are in order. But we have the most young people of 4 nationalities./The writing of projects increased because they need additional funding, and bureaucracy in general./Represents to the city government often what we do./* All the experts had survived the changes in the local government at different times, when the established systems were dismantled, cooperation with colleagues and networks disappeared (changed). The departure of many colleagues was very demotivating. */I even thought I was going elsewhere./ Colleagues left and the mood was zero. I went to another job myself./* The high mobility of the staff has made it necessary to constantly adapt to new people. In addition, the group of young people is always different, ie varies according to age, gender, interests, also nationalities. The will to work with young people in the field, patience, challenges and thinking out of the box are considered more important. Communication skills are especially important (empathy, good use of humor, conflict prevention, cognition, ability to always be “present”, ability to listen, feel barriers to communication, etc.). */ You have to win the trust of young people and then it's fierce./* Many interviewees also had another job in parallel, either working in their own company or elsewhere. This has been partly due to salary, but also as a personal initiative and a desire to acquire an additional profession in another specialty, to offer a service, to use one's own special skills (art, photography, sports, as an event organizer). */I am also interested in photography and initially dealing with young people, but now also in my company./I also organize children's birthdays./I am a coach/*. Half of the participants applied for a occupational level of youth worker 6. Unfortunately, some do not consider it important, because the specialty has been

studied and at the same time a few interviewees have chosen a master's degree in organisation of YW. One explanation *./..to avoid the routine..I somehow started to get bored. I thought I was going to study./*

Professional development of a youth worker to the level of an expert. It turned out that job changes within the sector were rather frequent. The positions were: youth worker, director / director of the youth center, local government youth work coordinator, etc. Two interviewees worked only as youth workers in different youth centers. Most of the interviewees participated in professional networks, but opinions differed on its' effectiveness. Some experts just wanted to do their job calmly. On the contrary, some can actively update YW at the local government level and develop it on the basis of knowledge. Targeting one's own work was based on various documents in YW. All saw the bigger picture of the youth field and the role of themselves in it further. Self-reflection is not done consistently, rather it is not given importance. It is also not considered important to apply for a youth worker level 7. However, one of the interviewees started a master's studies in YW management, and one of them had graduated last years. One interviewee also did not want to complete occupational level 6, has received high recognition for his activities in the field. Some participated in trainings and in the umbrella organization activities. One expert wanted to employ himself as a youth worker, not a manager, etc./ *There is a lot of experience and you look like through the young people. Skills support and motivate young people to participate in YW/.*

Conclusion

Estonian YW was considered to be relatively young in Europe, while its' progress at the regulatory level is praised and cited as an example. Local government and YW specialists were responsible for the YW organization and development. They had high expectations, but it was not easy to prove themselves in the field, colleagues often lacked experiences in cooperation. The intrinsic motivation and professionalism supported the experts in their professional development and work. Working time, professional studies, activity, determination, communication skills were important factors in professional growth. Horizontal and vertical careers existed in YW and retained experts, as well as autonomy. Experts valued the profession and skills they learned, but they could be more enthusiastic about promoting innovation in the youth field. Sometimes it seemed too comfortable and routine complacency. The fact that the necessity of the field needed to be constantly proven was explained as an obstacle. Supporting a novice worker during his career must be more at focus. The used strengths and skills, correct methodology and safe work with

young people, supported achieving contacts, involved young people, reached goals in general, and wanted to work in YW in future. The use of different tools in their work would be important. Responsibility is the most motivating and arises when there is a choice.

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WHY SERVICE DESIGN MATTERS: THE CASE OF NATIONAL LIBRARY OF LATVIA

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Abstract. *In the digital age when many organizations initiate and experience transformations as a reaction to wider societal changes, there is discussion about functionality, usability and availability of library services. Studies report a decreasing number of library visitors as result of the pervasive presence of the Internet as a faster source for getting resources, public's lack of knowledge about the library services, etc. To maintain relevance for the public, more libraries apply principles of service design to provide an effective customer experience. For national libraries websites are of high importance as gateways to library resources and media to communicate institutions' objectives. The aim of this article is to analyse how the principles of service design are reflected in the online services offered by the National Library of Latvia. The research methods rely both on secondary data on audience needs and involve application of the service design principles to the website of National Library of Latvia. Results highlight the majority of analysed libraries apply the basic principles of service design and the focus is to provide the user friendly experience in libraries' databases and repositories. The website of the library provides limited user friendly experience in library's and only partially follows the principles of service design.*

Keywords: *user experience, national library, service design, library websites.*

Introduction

Public libraries are cultural institutions that are highly dependent on public funding and thereby they need to be transparent in demonstrating the impact and value they represent in societies, both to strengthen their position and to influence policies and financial decisions (Sørensen, 2020). Recently, these institutions have risen to the challenges born from ongoing social, digital and

economic changes and library statistics (EBLIDA, 2013-2015, Department for Culture, Media and Sport 2015 - 2016) show that the ability of organizations to adapt to these new conditions varies from country to country (European Parliament, 2016).

According to Brindley (2008, p. 65) “what has made research libraries great in the past will not alone make them great in the digital environment” and the rapidly evolving information context of today. Being only one part of a great diversity of alternatives available to audiences, libraries have to find new ways to add value and remain relevant in the rapidly changing and competitive environment. The digitalization has opened up a rich information environment, characterized by a proliferation of information sources and providers, a multiplicity of methods for accessing information, and a redundancy of content from multiple sources. Under these conditions the habits of individuals of information seeking and gathering have transformed and many previous studies have looked into processes how individuals practice information, searching, and gathering processes, including also how and when individuals stop looking for information. According to Radford & Connaway (2015) many information users tend to experience a sense of information inadequacy and anxiety in this “overloaded” information environment. Providing information related services for contemporary society is specifically challenging as users of electronic information spaces have a diverse background, in terms of knowledge, skills, and preferences (Chen, Coughlan, Love, Macredie, Wilson, 2008).

One of the ways how libraries can overcome the challenges of the environment and support their users to stay relevant for their audiences is to apply the principles of service design. Service design helps with redesigning services from the perspective of the user, it is a holistic, co-creative method (Marquez & Downey 2015; Thoelen & Cleeren, 2015).

Recently number of the National Library of Latvia (further in text NLL) online service usage has grown steadily (2018 – 123921, 2019 – 142545) while number of physical visitors is slightly decreasing, also the amount of physical book loans decreases (2018 - 338 347, 2019 - 302 644 [1]), therefore this study focuses to the NLL website as the main tool used to communicate and provide digital services. Research aims to study application of service design principles in the website of the NLL to explore how effectively the institution targets the needs of contemporary information seekers. The main functions of the NLL are the collection of national literature, its perpetual storage and the long-term provision of access to it. The NLL collection consists of 4.5 million units and according to the annual review, the library had a total of 154 735 online and physical visitors in 2019 (LNB, 2020). Central Statistical Bureau of Latvia reports the number of active library users in 2018 was 26218, while in 2019 –

24932, which might mean that despite growing numbers of library visitors, the people use services less.

The research method is development of the set of criteria based on theoretical principles of service design principles and it has been applied to evaluate efficiency of the website of the National Library of Latvia. Additionally, usability experiments with library sources were held to back up the analysis of service design principles. Semi-structured interviews with teachers were implemented - they represent one of the main target groups of NLL and were asked about digital visibility of NLL services.

The article consists of literature review embracing the behaviour of information searching and gathering and needs of library visitors in the context of democratization of cultural institutions, as well as the review of service design principles and their application in the libraries. Next section of the study is devoted to research methods description that is followed by research results.

The Information Search Habits and Needs of Library Users in the Context of Contemporary Library

The traditional role of the library of collecting, treating, organizing, preserving and diffusing information and being source of expertise to access knowledge had been augmented to provide other, fundamentally different key service related to development of Web services, contents and tools, integrated systems for teaching and research support, collaborative platforms and enablement of people to share their expertise and knowledge and library services taking advantage of the opportunities produced by new technologies (Martins, Cortes, & Gabriel, 2011; Chowdhury, Poulter, & McMenemy, 2006; Royal Society, 2012).

Under new conditions it is not anymore about scarcity but more about choice, availability, findability and share-ability of materials and libraries are vying for information seekers' attention in the digital environment. When people have plenty of choices available, traditional library-centered processes, systems, and services that require users to build and adapt their workflow around them, must be replaced with systems and custom-made services around the users' workflow and habits to attract their attention (Radford & Connaway, 2015; Martins et al., 2011).

Harbo & Hansen (2012) also emphasize the need to innovate library services and facilities to serve visitors and to take the perspective of library "user logic". User logic defines if the services are meaningful from the users point of view. However, Lippincott (2005) questions the ability of libraries to adapt to new conditions as services are presented in the library organization

context rather than in a user-centered mode. In the competitive environment with plenty of choices available, the significance of new means of communication and promotion of libraries and services to establish and strengthen relationships with visitors has become prominent (Martins et al. 2011).

Some national level studies (Fernández-Ardèvol, Ferran-Ferrer, Nieto-Arroyo, Fenoll, 2018) present data that despite democratization efforts and increasing number of services, content and service marketing efforts, the libraries have not managed to change their image and audience still perceive them as traditional organizations and the image of the library still is attached to books. The perception of the image of the library, in turn, determines what services people expect from the library and, accordingly, what services will be sought and used.

Users, user needs and community needs that the library has to respond to are placed at the very center of democratic library institutions. Physical and online users have enough diverse backgrounds, in terms of knowledge, skills, and preference, cultural contexts etc. to make the task challenging. Many previous studies have looked into processes how individuals practice information seeking, searching, and gathering processes to include how and when individuals stop looking for information (Radford & Connaway, 2015).

Researchers emphasize striking differences of information searching and gathering behaviours among individuals representing different generations. Lippincott (2005) explored the needs of Net Generation students that have grown up with computers and video games and become accustomed to multimedia environments and have not habits of consulting manuals and points they depend on Google or similar search engines for discovery of information resources rather than consultation of library Web pages, catalogues, and databases as the main source of access. Lippincott (2005) questions how the needs of younger generations match the traditional library environments as they are large and text based, frequently requiring learning the system from librarians, while states an increasing number of libraries responds to user demand and technological trends. Recent studies regarding information seeking behaviours of millennial academics confirmed the same trend and claimed that new or naïve researchers move away from subject specific resources and towards Google and similar digital tools (Gordon, Meindl, White, & Szigeti, 2018).

Service Design in Context of Library Services

Recent trends observed in public-sector organisations around the world are showing increased focus on renewal of public services and organisations involving service design expertise (Park-Lee, 2020). Consequently, we can say

that application of commercial sector practices and principles becomes more common as the modern value concept determines that service or product should focus on customers' experiences uniquely determined by them in their own situations (value-in-use), not simply the offerings as such. Value is produced only when the customer actively steps in its generation (Grönroos & Voima, 2013; Vargo & Lusch, 2008; Verma, Gustafsson, Kristensson, & Witell, 2012).

Service and service design are not new terms. As Katzan (2011, p.43) has stated 'service is an interaction between entities that co-creates value'. In this process the involved entities may be persons or nonpersons, such as public bodies, educational institutions, and possibly some form of automation. Service design is a method for creation or improvement of services. Similarly, to product design it is interdisciplinary and makes use of 'design thinking'. Service design helps with redesigning services from the perspective of the user, it is a holistic, co-creative method. The main service design principles are: user centered, co-creative, sequencing, evidencing and holistic (Marquez & Downey 2015; Thoelen & Cleeren, 2015).

Another issue in the context of development and application of service design methods are connected with service design capabilities, e.g. access to resources such as funding, software, innovation space etc. (Morelli, De Götzen, & Simeone et al., 2021).

Integrating user-centered service changes allows libraries to stay in pace with unfolding expectations and needs. Usability studies along with traditional anthropological research are commonly used to assess library spaces and services in order to find out more about how users access and use information (Marquez & Downey, 2015; Gibbons, 2013; Duke & Asher, 2012). Good user interface for digital library tools is like a friendly, knowledgeable and trained librarian: both of them are crucial to meet the needs of library service users (El Mimouni, Anderson, Tempelman-Kluit, & Dolan-Mescal, 2018). However, Marquez & Downey (2015) indicate that practicing librarians often tend to focus on rather small details about users' experiences rather than researching the entire service of a library and the community it serves which contrasts to service design principles (Marquez & Downey 2015).

In previous studies (Nyame, Lu & Fu, 2019; Kous, Pušnik, Hericko, & Polancic, 2018; Perrin Clark, Medina de Leon & Edgar, 2014) besides the general conclusions that threshold is not commonly observed during the testing of library website usability, several specific user problems were indicated. (1) Individual databases are difficult to find, (2) drop down limiters are misleading, (3) articles by subject are not visible for users, (4) titles in dropdown limiters are not comprehensive for users, (5) simple spelling errors in search are unrecognizable, because there is no indication for that.

Description of Research Methods

The primary data collection sources involved library websites followed by website content and functionality analysis with focus on holistic user experience and service design principles. Firstly, we did the overall analysis of European national libraries, then selected 8 websites (national libraries of Estonia, Iceland, Norway, Denmark, the Netherlands, Finland and Germany) for deeper comparative analysis with LNN website. The criteria for selection for an analysis were based on the clear presence of service design principles such as access to resources as priority service, segmentation on service (specific segment identification), user friendly interface, target segments, online interaction with user, co-creation offer, amount of individual databases, amount drop-down limiters, sequence of information, general complexity, integration of one click principle and other functional features. In the next stage we analysed content and functionality by using above mentioned criteria.

In the research project “The Significance of Documentary Heritage in Creating Synergies between Research and Society” previously collected unpublished data were used to contextualize National Library of Latvia - NLL relationship with visitors and service design aspects, service communication: (1) semi-structured interviews with one of the library target groups - school teachers. Interviews with secondary school history and literature teachers (N=8) were held in spring 2020 and explored to what extent teachers perceive NLL as a significant resource for their daily work; (2) User experience experiment to test how user friendly are search functions in NLL digital resources involves 10 randomly selected participants with different professional and educational backgrounds. Each of them performed 7 tasks - to search for the information, which can be found on NLL digital library. If the participants could not succeed without instructions, then they received some hints from the researcher how to proceed further; (3) the survey about information search habits among NLL target groups. Quantitative online questionnaire (N=354) about the information search habits among NLL target groups and usage of digital resources was implemented in spring 2020. The respondents consist of 165 educational institutions, 76 public cultural organizations, 56 scientific institutions and 1 center of technologies; 47 business organizations and 9 nongovernmental organizations.

Contextualisation of National Library of Latvia

There is a shortage of previous studies regarding different aspects of the National Library of Latvia and are available only a few academic studies focusing on NLL performance as a contemporary, democratic public institution and its ability to offer competitive information services for audiences. NLL strategy emphasizes the importance of the library as an open organization for wider audiences and cultural space for community, as well as indicates necessity to analyse the needs and demand of the audience and match them with library offers, to engage specific target groups into the process of developing library collections. It also stresses the importance to provide user friendly information search for library users by stating: “We will work to ensure that the search for information in the National Digital Library of Latvia and other resources creates an experience that encourages a return to them.” (LNB, 2019, p.11) NLL performs its mission by collecting and developing its physical and digital collections, providing information services and educational offers (LNB, 2019). NLL has established a variety of online databases and resource collections available on website www.lnb.lv and external domains.

Interviews with secondary school teachers revealed that some informants perceive the library as a physically and/or psychologically inaccessible place. In the context of physical accessibility, the main obstacle is the distance to the National Library. It hints the image of the library is related to physical books and on-site services, rather than digital collections and services. Significant obstacle for teachers to consider NLL resources to be important in their daily teaching work is the perception of “too smart offer” by the National Library. They believe these services are mostly for university students and researchers. For daily needs teachers mainly rely on alternative information sources outside NLL. When asked about factors hindering the use of NLL resources or their more frequent use, teachers report the lack of time, a wide range of alternative information resources, service fees, as well as the fact that pupils do not need such in-depth information on a daily basis. These barriers emphasize the need to develop user oriented information services which would be simply to use and could compete with alternative sources, would not be time consuming.

Some of the NLL resources contain content applicable for wider audiences (e.g. enciklopedija.lv, zudusilatvija.lv etc.) while others serve for specific target groups, e.g. academics and scientists, or those interested in specific topics (e.g. braludraudze.lndb.lv, stenders.lndb.lv), however in most cases data reflects that the majority of users make irregular visits to digital resources or are not informed about them, which might indirectly indicate issues in the context of

service design. Surprisingly, educational and scientific institutions are not among the most active digital library visitors (see Figure 1).

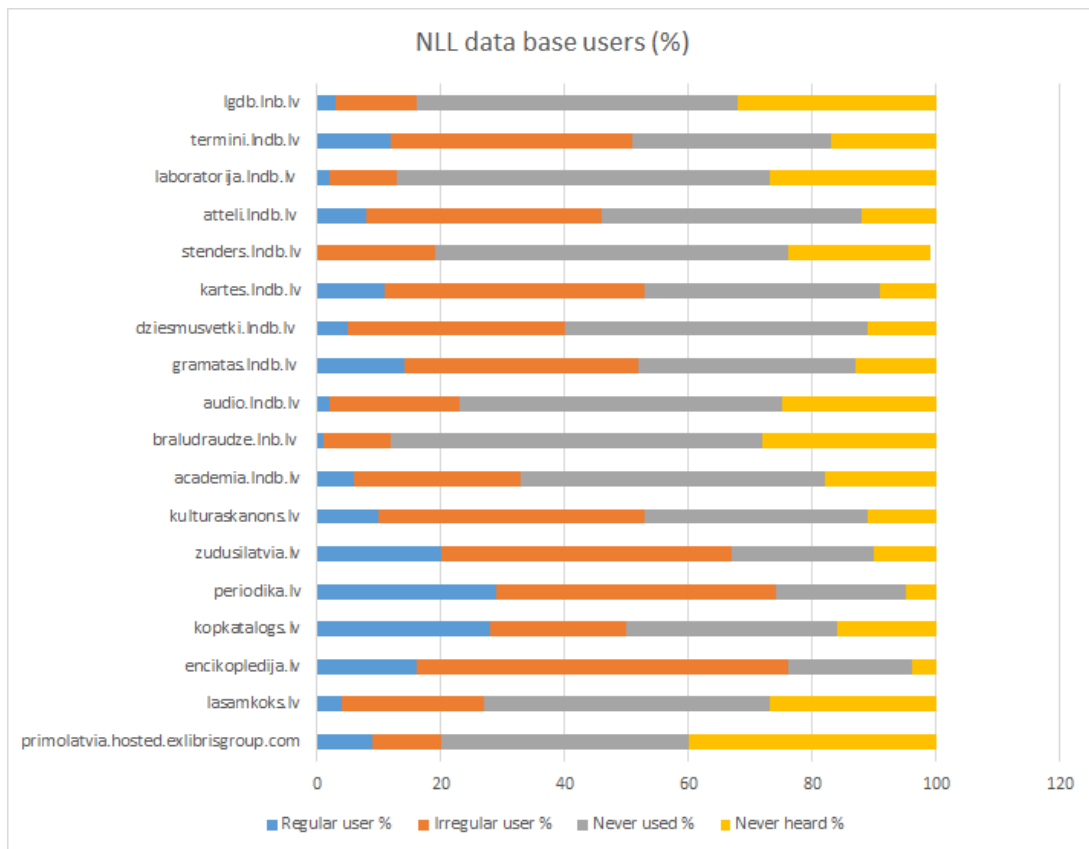


Figure 1 Usage of NLL Digital Resources (Java, 2020)

Application of Service Design Principles in Libraries

The comparative analysis of the websites of the national libraries reveal some common patterns of service design principles (see Table 1).

Table 1 Analysis of the Websites of the National Libraries

Criteria	Latvia	Estonia	Iceland	Norway	Denmark	Netherlands	Finland	Germany
URL	www.lnb.lv	https://www.nlib.ee	https://landsbokasa.fi.is	https://www.nb.no	http://www5.kb.dk	https://www.kb.nl	https://www.kansalliskirjasto.fi	https://www.dnb.de
Access to resources as priority service	Access to resources is not positioned as priority or central service. PRIMO, a discovery search tool is found as an icon in the front page.	Access to resources through search. Clear user registration policy. Conference and reading room rent is actively positioned as service.	Majority of resources are located on external domains presented as links on the front page. Direct search function only for the website. Access to e-resources - search for books. No direct access to all library resources.	Access to resources is absolute priority in the front page, very central. "One click" access to collections of the library.	Access to resources is one of the first links in a website, but not positioned as central. The same significance of news, events and services.	Access to resources is priority, emphasized in the front page.	Access to resources is priority. Access the National Library's collections with a single search) as well as practical information for visitors.	Access to digital resources is priority, however digital resources are located on external domains.
Segmentation of service	Some segments defined.	Segments identified by needs.	Segments identified.	Not specified	Not specified	Segments identified.	Not specified.	Segments identified.
Online interaction with user, co-creation options	Not integrated.	Chatbot. Invitation to collaborate in creation of collections.	Chatbot.	Not integrated.	Embedded system for questions.	Embedded system for questions. FAQ.	Not integrated.	Embedded system for questions.
Fragmentation level (individual)	High fragmentation	Some fragmentation	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal

Sequence of information	News, organization information followed by service information, opening hours and access to resources.	User registration, services, other services (room rental), opening hours. Services: Education center, Conference center, Cultural center.	E-resources, services, facilities, contacts.	Resources, how to find, exhibitions, services.	Resources, for inspiration, events, services, visitation information, including practical instructions.	Resources, information for visitors, news services, collaboration, about organization.	News, user information, resources, services, collaboration.	For users, cultural offers, for professionals, collections, about the library..
Complexity & one click principle	Very complex.	Simple.	One-click website, simple and comprehensive, concentrated information about resources - content, accessibility.	One click, high functionality.	Some sections are simple, some more complex.	Simple and functional. Hyperlinks in text to reduce the amount of clicks. Access to the list of all resources and filters.	Access to the resources positioned as one click option.	From a comparative perspective - too long descriptions, instructions and texts.
Other functional features	Duplicated information, information overload, very high number of subsections; Quick links to external resources, LNB databases on domains outside LNB.	Functional visually attractive design; Contacts & opening hours - on the front page.	Functional visually attractive design. Some link duplication. News section is not overloaded. Links to external resources - Eurepana etc.	Functional visually duplicated information, news section is not overloaded, short, concise texts.	Duplication of the search engine. Links lead to external resources.	Quick links to the most popular resources. Show more function.	Show more function.	Duplicated link to the resource database.

Source: Authors on the basis of websites of the national libraries

An analysis of national library websites presents that in most cases, organizations prioritize information retrieval services and user-friendly, convenient search functions. Most libraries have chosen to avoid information-cluttered websites and instead designed structurally simple websites with a small number of drop-down limiters and user-friendliness. So libraries abandon the practice of offering digital resources based on professional library systematization and catalogization standards and instead chooses to rely on service design principles. Rejecting complex structures of catalogues and databases is a precondition to implement user friendly one-click principle. Following the principles of library users` logic makes services more meaningful from the users point of view (Harbo & Hansen, 2012).

It is important to note that in the majority of analysed websites practical information such as how to become a user, opening hours, restrictions during pandemic etc. for users and visitors was displayed straight on the top sections of the front page instead of being hidden under some drop down limiter. To some extent, this also indicates which services are being prioritized. As a modern collaborative feature integration of chatbot services and direct possibility to complement some specific library collections. Some national libraries are more likely than others to engage audiences in collecting collections on their websites, thus becoming collaborative platforms and enablement of people to share their expertise and knowledge. Several websites have chosen to back up certain information. Duplicating information from different events is easy for the user to search, allowing access to important links from multiple locations, while in other cases, duplication does not follow the user's logic, is technical, and contributes to information clutter.

The comparative analysis revealed that in general the website of NLL has not been created as user-centered. The access to resources is rather complicated and not positioned as priority, the structure of the website is tangly - numerous drop-down limiters, sequence of information, creative but non-comprehensive, misleading titles. Search engine PRIMO is helpful to navigate the complexity, yet it does not find information in all available databases. Amount of data bases (including ones technically located on domains outside of LNN) and search engines represent high levels of fragmentation more relevant to classic library systematization than user needs. There is a high level of information duplication.

User experience experiment test results on how user friendly are search functions in NLL digital resources discovers similar results as website analysis and highlights the mismatch between user logics and website design as 8 out of 10 participants were not able to find the information they were searching for despite receiving hints from researchers. Observation of participants several times demonstrated that search processes were failed as a result of simple

spelling errors, hard to find individual databases, shortage of search assistance generates too large number of results etc. These results are in line with previous usability studies by Nyame et al. (2019), Kous et al. (2018) and Perrin et al. (2014) and indicate typical problems in libraries websites.

Chen et al. (2008) reports that providing information related services for contemporary audiences is challenging as users of electronic information spaces have a diverse background and in case of NLL it is possible that there are still unused potential to reach significant audiences. The survey results and interviews identify that educational institutions are one of potentially increasing target groups. The complicated information search process on NLL digital resources possibly is one of the reasons why some target groups have constructed an image of the Latvian National Library as an institution that offers services to specific target groups - mainly researchers, students, thus also building barriers for accessibility among wider audiences. Literature studies (Fernández-Ardèvol et al., 2018) indicate that libraries should make more efforts in service marketing and this also refers to NLL as questionnaire results confirm wide audiences do not recognize libraries` digital databases.

Conclusion

Summarizing the results of both - data gathered in primary and secondary research we can conclude, that core service design principles as focus on user, co-creation, sequencing, evidencing and usage of holistic approach are just partially applied in development of NLL website as meaningful communication and research tool for users and there is still space for relevant adjustments. Meanwhile, other national library websites have integrated approaches that enhance user experience and value-in-use as contemporary conditions as emphasized in previous studies. The results of this research prove that the intention defined in the NLL strategy to understand in-depth to the needs of the library user is very relevant to make sure the liber offer matches the information needs of contemporary library users. By integrating service design principles libraries potentially also increase their ability to justify the use of public funding and become meaningful for wider audiences. For the future studies it would be beneficial to apply the principles of service design holistically and analyse both onsite and digital services of the NLL.

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TRANSVERSĀLO PAMATKOMPETENČU VIETA UN NOZĪME PROFESIONĀLAJĀ IZGLĪTĪBĀ MŪŽIZGLĪTĪBAS KONTEKSTĀ

The Place and Role of Transversal Key Competences in Vocational Education and Training in the Context of Life-Long Learning

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Abstract. Vocational education and training (VET) plays a central role in the lifelong learning (LLL) continuum. In Europe Union and in Latvia, LLL is recognized and accepted as a tool that promotes human entrepreneurship, employability and resilience, active civic participation, social inclusion and personal self-development. The COVID-19 pandemic has seriously disrupted standard education and training activities, including VET across Europe. Young people entering the workforce at this time will find it harder to secure their first job. VET have to provide people with skills and competences for work which help them to cope with emergency situations and economic shocks and get or create jobs in demand on the labour market. Transversal key competences (TKC) is an essential part of VET. Professional and general competences reflect an individual's ability to work in a specific context, i.e. professional environment; at the same time they presume a set of abilities which we call transversal.

The aim of this research is to analyze the process of implementation of four TKC (learning to learn, social and civic competences, initiative-taking and entrepreneurship, and cultural awareness and expression) in VET curriculum in Latvia. It is part of wider study of the National Centre for Education of Latvia and Erasmus + Strategic Partnership project Developing, assessing and validating transversal key competences in the formal initial and continuing vocational education and training (TRACK-VET), (2017–2020). The project produce detailed analysis of the systemic solutions, practices, and techniques in six EU countries regarding development and assessment of TKC.

Keywords: lifelong-learning; transversal key competences; vocational education and training.

Ievads

Introduction

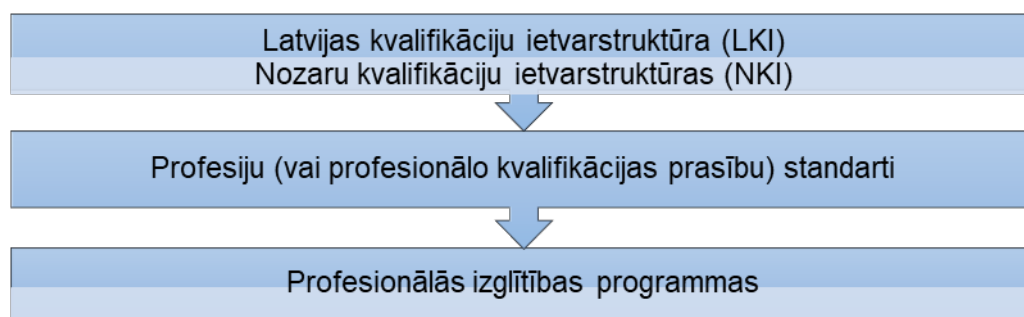
Digitālā revolūcija un tehnoloģiskās novitātes strauji pārveido darba pasauli un daudzu profesiju prasmju aprakstus. Pārmaiņu temps prasa

nepārtrauktu kompetenču pilnveidi, kvalifikācijas celšanu un pat profesijas vai nodarbošanās maiņu, izmantojot dažādas mūžizglītības iespējas. Jau 2002.gada UNESCO un Starptautiskās darba organizācijas (ILO) Rekomendācijās tiek atzīmēts, ka iepriekšējo uzskatu, ka cilvēkam nepieciešams darbs visai dzīvei nomaina uzskats, ka pamatvajadzība 21.gadsimtā ir mūžizglītība, kas palīdz dzīvot mainīgajā pasaulē (UNESCO and ILO recommendations, 2002).

COVID-19 pandēmija ir nopietni traucējusi un izmainījusi visu izglītības formu norisi, tostarp, profesionālo izglītību Eiropā un visā pasaulē. Daudzās profesijās jauniešiem, kas šajā laikā ienāk darba tirgū, būs grūtāk iegūt pirmo darba vietu. Zinātnieki un izglītības politikas veidotāji pievērš arvien lielāku uzmanību uz kompetencēm balstītas izglītības nodrošināšanai visu līmeņu un veidu izglītības programmās (Clarke, Westerhuis, & Winch, 2020).

Arī Latvijas profesionālās izglītības sistēmai ir jāpiedalās aktuālo valsts sociāli ekonomisko izaicinājumu risināšanā. Profesionālās izglītības dažādām (profesionālās pamatizglītības, arodizglītības, profesionālās vidējās un augstākās izglītības, ārpus formālās izglītības un profesionālās tālākizglītības) programmām ir jāpalīdz nodrošināt cilvēkiem prasmes, iemaņas un kompetences darbam, kas viņiem palīdzētu pārvarēt ārkārtas situācijas un ekonomiskus satricinājumus, lai iegūt vai radītu darba tirgū pieprasītas darba vietas (Daija, Kinta, & Ramaņa, 2016).

Mūžizglītības kontekstā Latvijas izglītībā būtiska nozīme ir kopš 1995.gada notiekošās profesionālās izglītības sistēmas un tās satura reformas aktivitātēm (skat. 1.attēlu).



1.attēls. *Profesionālās izglītības satura nodrošināšanas sistēmas dokumentu hierarhija*
(autores veidots)

Figure 1 *Hierarchy of Documents of the Vocational Education Content Provision System*
(created by the author)

Latvijas tautsaimniecības nozaru izpēte, nozaru ekspertu padomju izveide, profesionālās izglītības satura nodrošināšanas sistēmas pamatposmi tiek

izveidoti un attīstīti laika posmā no 2005.- 2018.gadam izmantojot Eiropas struktūrfondu (ESF) projektu atbalstu.

Pamatjēdzieni profesionālās izglītības saturā, kuri tiek ietverti svarīgākajos ES un Latvijas izglītības politikas dokumentos, to pēctecība, sasaistē ar praktisko izglītības procesu, tiek skaidroti un nostiprināti 2017.gadā VISC Eiropas Sociālā fonda projekta "Nozaru kvalifikācijas sistēmas pilnveide profesionālās izglītības attīstībai un kvalitātes nodrošināšanai" izdotajā metodiskajā materiālā "Profesiju standartu/ profesionālās kvalifikācijas prasību izstrādes metodika": profesionālas zināšanas, vispārējas zināšanas, kompetence, mūžizglītība, pamatkompetences, profesionālā kompetence, caurviju prasmes, u.c. Jēdziena "kompetence" saturs ietver profesionālās un personīgās īpašības, uzkrātās zināšanas un pieredzi, prasmes, attieksmes, vērtības. "Kompetence – pierādāma spēja mērķtiecīgi izmantot zināšanas, prasmes, personiskās, sociālās un/vai metodoloģiskās spējas darba un mācību situācijās, profesionālajā un personīgajā attīstībā. Eiropas kvalifikāciju ietvarstruktūrā kompetenci apraksta saistībā ar atbildību un autonomiju. (...) Kompetences ir profesijas uzdevumu izpildes standarts" (VISC, 2017, 35.-37. lpp).

Eiropas pamatkompetenču ietvarstruktūra (European Parliament, 2006) ir bijis plaši izmantots rīks, kas veicina reformas profesionālās izglītības saturā. To pārskatot, 2018.gadā par mūžizglītības izglītības politikas aktualitāti kļūst Eiropas padomes "Ieteikums par pamatkompetencēm mūžizglītībā, kur norādīts, ka "...Pievērsoties pamatkompetenču attīstībai mūžizglītības perspektīvā, visos izglītības, apmācības un mācīšanās iespēju līmeņos būtu jānodrošina atbalsts, lai izveidotu kvalitatīvu agrīno pirmsskolas izglītību un aprūpi, vēl vairāk uzlabotu skolu izglītību un nodrošinātu izcilu mācīšanu, piedāvātu prasmju pilnveides ceļus mazkvalificētiem pieaugušajiem, kā arī turpinātu attīstīt sākotnējo un tālāko profesionālo izglītību un apmācību un modernizētu augstāko izglītību" (European Council, 2018, p 3.).

Raksta mērķis ir atspoguļot intervijās par TKC vietu un nozīmi profesionālajā izglītībā iegūto datu analīzes rezultātus.

Metodoloģija *Methodology*

Raksts balstās uz daļu no pētījumiem, kuri no 2017.-2020.gadam tika veikti Erasmus+ KA2 sešu Eiropas valstu stratēģiskās partnerības projektā "Transversālo pamatkompetenču attīstīšana, vērtēšana, atzīšana sākotnējā profesionālajā izglītībā un profesionālajā tālākizglītībā" (*Developing, assessing and validating transversal key competences in the formal initial and continuing*

vocational education and training (TRACK-VET)). Informācijas iegūšanai tika izmantota metožu triangulācija: dokumentu analīzes metode, strukturētā intervija un fokusdiskusija. Raksts atspoguļo intervijās iegūtās informācijas analīzes rezultātus Latvijā. Pētījuma bāzi veido :

- 7 intervijas ar augstākā un vidējā vadības posma profesionālās izglītības nozares profesionāļiem (turpmāk - PI profesionāļi);
- 19 intervijas ar pedagogiem (turpmāk – PI pegagogi);
- 8 intervijas ar izglītības darba vadītājiem, tsk. metodiķiem profesionālās izglītības iestādēs (turpmāk – PI metodiķi);
- 6 intervijas ar darba devēju pārstāvjiem (turpmāk – darba devēji).

Projektā piedalījās Vīnes Profesionālās izglītības pētījumu institūts, Marseļas Kvalifikāciju pētījumu centrs, Oslo Darba un sociālo pētījumu institūts Fafo, Nacionālais sertificēto izglītības mērījumu institūts no Bratislavas, Mateja Bela Universitāte Slovākijā un Valsts izglītības satura centrs, kas pārstāvēja Latvijas profesionālo izglītību. Varšavas Ekonomikas augstskola veica projekta TRACK-VET, kā arī pētījumu metodoloģijas izstrādes un aprobācijas vadību, partnervalstu veikto pētījumu un sagatavoto ziņojumu izvērtēšanas vadību un sagatavošanu publicēšanai. (TRACK-VET, 2018.) TRACK-VET paredzēja novatorisku organizatorisku pieeju attiecībā uz plaši atzītu akademiķu un izglītības politikas ekspertu iesaistīšanu. Projekta mērķis bija sagatavot izpētē balstītus ieteikumus Eiropas Savienības valstu izglītības politikas veidotājiem un citām ieinteresētajām pusēm, kas piedalās transversālo pamatkompetenču attīstīšanā, novērtēšanā un atzīšanā sākotnējā profesionālajā izglītībā un profesionālajā tālākizglītībā.

Kompetences jēdziena aktualitāte izglītībā *Relevance of the Concept of Competence in Education*

Cilvēkiem ir vajadzīgs prasmju un kompetenču kopums, lai uzturētu vēlamo dzīves līmeni, lai būtu nodarbināti un uzturētu spējas strādāt, jo īpaši pārmaiņu laikā. Attīstīt kompetenci nozīmē arī izveidot pamatvērtības, kas pastāvīgi jāpilnveido. Izglītībā pāreja uz kompetenču pieeju nozīmē mainīt mācību procesa metodoloģiju, kas ietver ne tikai mācību saturu, bet arī mācīšanās organizāciju un praksi. (Mulder, Weigel, & Collins, 2007).

Kompetences jēdziena izcelsmei, nozīmei, lietošanai ir veltīti ļoti daudzi pētījumi kopš 20.gadsimta vidus (Delamare Le Deist & Winterton, 2005; Mulder, Weigel, & Collins, 2007; Brockmann, Clarke, & Winch, 2009; Sylvest & Kwaw, 2017., u.c.). Tomēr joprojām, kā to konstatēja TRACK-VET projekta pētnieki visās valstīs, pietrūkst konsekvences un skaidrības kompetences jēdziena praktiskajā lietojumā gan zinātniskajā literatūrā, gan

izglītības politikas dokumentos un metodiskajā literatūrā izglītotājiem. Tiek ietverts apraksts par to, kā cilvēki domā, rīkojas, izmanto rīkus un mijiedarbojas. Tomēr, ja kompetence pati par sevi nav labi izprotama, tad to ir sarežģīti mācīt, apgūt un vērtēt. No vienas puses, tas norāda uz šī jēdziena nepieciešamību, no otras puses, rada nesaprašanos, aptuvenības izglītības procesu plānošanā un skaidrošanā. Diemžēl, pēc projekta gaitā veiktajiem pētījumiem sešās valstīs, nācās secināt, ka joprojām ir sarežģīti sniegt vienotu kompetenču izpratnes skaidrojumu. Šo terminoloģijas dažādību atklāj arī pašreizējā vispārējā prakse profesionālajā izglītībā (key competences / cross-curricular key competences / basic competences / transversal competencies / core skills / key skills/ transversal skills).

Dažādu pētījumu rezultāti liecina par nemainīgi augstu tādu pusaudžu un pieaugušo īpatsvaru, kuru pamatprasmes ir nepietiekamas. Kā atzīmē K. Illeris, tiek pārskatīti pētījumi par jaunām pieejām profesionālajā izglītībā, gan attīstītajās, gan jaunattīstības valstīs, īpašu uzmanību pievēršot jauniem darba un kopienas mācību modeļiem, kas var veicināt pārveidojošu mūžizglītību. (Illeris, 2009). Tas nozīmē, ka ieguldīt līdzekļus pamatkompetencēs ir kļuvis svarīgāk nekā jebkad agrāk. Mūžizglītība, kas aptver neformālās, ikdienas un formālās mācīšanās spektru, būs būtiska izglītojamiem, kuriem būs nepieciešama nepārtraukta kvalifikācijas celšana un kvalifikācijas paaugstināšana, lai tiktu galā ar nozares izmaiņām un neparedzētiem tehnoloģiskiem sasniegumiem (Kankwar et al., 2019).

Ejot kopsolī ar Eiropas Savienības izglītības politikas aktualitātēm būtiska vērība tiek pievērsta pārejai uz kompetenču izglītību un transversālo kompetenču iegūšanu (Mulder, Weigel, & Collins, 2007). “Katram pilsonim laika gaitā būs jāattīsta augsta līmeņa mācību priekšmetu kompetences un jāturpina to darīt. Tomēr viņiem visa mūža garumā būs jāattīsta arī pamata “transversālas attieksmes, demokrātiska pilsoņa prasmju un zināšanu kopums (..) Mums būs jāpārvērtē mācību laika sadalījums dažādu izglītības mērķu sasniegšanai” (Council of Europe, 2015).

Transversālās kompetences ietver nozīmīgus cilvēka darbības kognitīvos, afektīvos un sociālos aspektus, kas attiecas uz visiem cilvēka darbības virzieniem, tostarp, tās mijiedarbojoties veicina profesionālo kompetenču pilnveidi un otrādi.

Jēdziena „transversāls” (latīņu val. *transversus* – šķērsvirziena) visatbilstošākais tulkojums latviešu valodā, ir “caurviju”, kas, savukārt, valodas konstrukcijā “transversālās kompetences”, atklāj to pamatīpašību - būt klātesošām, cauraust. Līdzšinējā teorijā un praksē izglītības nozarē abi jēdzieni tiek lietoti paralēli.

Transversālās pamatkompetences sākotnējā profesionālajā izglītībā un profesionālajā tālākizglītībā: teorija un prakse
Transversal Key Competences in Initial Vocational Education and Continuing Vocational Education: Theory and Practice

Mācīšanās rezultātus saprotam kā formulējumu par to, kas izglītojamajam būtu jāzina, jāsaprot un jāspēj izdarīt, pabeidzot mācīšanās procesu. Sekojot Eiropas Savienības dažādiem ieteikumiem, latviešu valodā ne vienmēr tiek lietoti atbilstoši jēdzieni “*result*” un “*outcome*”, proti, abos gadījumos tos tulkojot kā “*rezultāts*”. kas neatbilst reālajai izglītības undarba dzīves praksei. “*Rezultāts*” un “*iznākums*” varētu būt precīzāki jēdzieni, lai paskaidrotu to, kas tiek sagaidīts no izglītojamā, kurš apguvis noteiktu profesionālās izglītības programmu.

Kompetences jēdziens raksturo izglītojamo mācīšanās sniegumus, iznākumu to, kā viņš spēj kvalificēti un veiksmīgi strādāt konkrētā profesijā un konkrētā darba vietā. TKC, kā viennozīmīgi to atzīst visi respondenti, ir universālas kompetences, kuras ir nepieciešamas ikvienam, kas atklājas ne tikai profesionālajā darbībā, bet arī visā pārējā dzīvesdarbībā (personiskajā, sabiedriskajā dzīvē, utml.).

Aprobējot projekta TRACK-VET metodoloģijā piedāvātos intervijas jautājumus, intervijas sākumā tika iekļauts jautājums par jēdziena “kompetence” un jēdziena TKC izpratni. Dažādām respondentu grupām bija ļoti dažāda attieksme pret TKC – no rutīnas līdz patiesai ieinteresētībai. 80% gadījumos intervijas sākumā TKC tika saistīts ar ārpusmācību darbu un aktivitātēm. Vistālāk no temata izpratnes par TKC vietu profesionālajā izglītībā bija arod biedrību pārstāvji. Darba devēji savās atbildēs uzsvēra profesionālo kompetenču prioritāti. TKC tika vērtēts kā pašsaprotams, kā konteksta elements apgūstamajai kvalifikācijai. Arī TRACK-VET projekt ietvaros veiktajā dokumentu izpētē, analizējot TKC kvalifikācijas eksāmenu teorētiskās daļas uzdevumu saturu atklājās, ka tiešā veidā TKC netiek pārbaudītas, vai arī, atsevišķos gadījumos, tas tiek veikts ciešā saistībā ar profesionālajām kompetencēm. Intervijās PI profesionāļi savukārt to skaidroja ar formatīvo TKC vērtēšanu visā izglītības procesa laikā, kā arī izglītības programmās obligāti iekļauto mūžizglītības moduļu apguvi. Visās profesionālās izglītības programmās, sadaļā “Profesionālais saturs”, ietilpst arī mūžizglītības kompetenču moduļi “Iniciatīva un uzņēmējdarbība”, “Sabiedrības un cilvēka drošība”, “Valodas, kultūras izpratne un izpausmes”, “Sociālās un pilsoniskās prasmes” un “Informācijas un komunikācijas tehnoloģijas”. Saistībā ar iegūstamās kvalifikācijas specifiku, mūžizglītības kompetences, tostarp TKC,

var tikt integrētas gan saistītajos vispārīzglītojošajos priekšmetos gan profesionālā satura moduļos.

Intervijās klātesoša bija paļaušanās uz Eiropas Kvalifikāciju ietvarstruktūru, LKI un pārējiem normatīvajiem dokumentiem, saskatot galvenokārt nepieciešamību īstenot izglītības iestāžu licencētajās izglītības programmās noteikto.

Plašāka un radošāka pieeja TKC izpratnei, īstenošanai un vērtēšanai izglītības procesā bija intervēto pedagogu grupā. Tika izteikts arī viedoklis par TKC saistību ar izglītojamā ģimeni, tās sociāli ekonomiskajiem dzīves apstākļiem, izglītojamo attieksmi un motivāciju.

Profesionālās izglītības politikas īstenošanā atzina, ka bieži nonāk situācijās (piemēram, konsultējot jaunu programmu izstrādes procesu), kad ir sarežģīti salāgot normatīvo aktu prasības un konkrētas izglītības iestādes iespējas, ko nosaka reģiona darba tirgus prasības/pieprasījums, gan pedagoģiskie resursi, gan izglītojamo intereses un motivācija.

Izglītības iestāžu metodiskā darba vadītāji īpaši akcentēja ārpus mācība darba aktivitāšu nozīmi TKC apgūvē.

Tabula (1. tabula) atspoguļo īsu intervijās iesaistīto respondentu viedokļu kopsavilkumu.

1.tabula. Īss respondentu viedokļu kopsavilkums (autores pētījums)
Table 1 Short Summary of Respondents' Views (research by author)

<i>Intervētā grupa</i>	<i>Daži secinājumi un komentāri no intervijām</i>
Profesionālās izglītības sistēmas vadībā strādājošie (izglītības politikas veidotāji; tie, kas veic profesionālās izglītības politikas īstenošanu) (7)	<ul style="list-style-type: none"> ➤ Visi respondenti pilnībā informēti par TKC būtību, saturu un strādā ar atbilstošajiem normatīvajiem aktiem; ➤ Uzskata, ka ir daudz informācijas par TKC- gan potitikas dokumentos, gan netieši- piem.sociālajos medijos, periodikā, projektos; ➤ Izstrādājot dokumentu projektus tiek ņemti vērā ES ieteikumi par mūžizglītības pamatkompetencēm; ➤ Katrai izglītības iestādei jāveido sava sistēma TKC pilnveides un apguves nostiprināšanai; ➤ Skolām vairāk jāsadarbojas, tsk. pieredzes apmaiņā metodikas jomā; ➤ PIKC diezgan pasīvi pilda metodiskā darba funkciju, kaut arī normatīvie dokumenti to nosaka; ➤ Ikdienas darbā seko līdzī TKC īstenošanai profesionālās izglītības iestāžu izglītības programmās, kā arī seko TKC novērtēšanai; ➤ Pauž uzskatu, ka TKC mūžizglītībā ir pat svarīgākas par profesionālajām kompetencēm; ➤ TKC apguve nodrošina veiksmīgāku profesionālo karjeru;

	<ul style="list-style-type: none"> ➤ TKC attīstības līmenis ir atkarīgs no izglītības politikas valstī ➤ Izglītības politikas aktualitāte ir kompetenču pieejas ieviešana vispārējā izglītībā (attiecas arī uz IVET) un jaunu profesionālo standartu un modulāro programmu ieviešana; ➤ Pamatstratēģija TKC nodrošināšanai: centralizēta profesionālās izglītības programmu vērtēšana, saskaņošana (VISC, IZM, IKVD); ➤ Papildu pasākumi TKC attīstības veicināšanai profesionālajā izglītībā: <ul style="list-style-type: none"> • pedagoģu izglītošana; • profesionālās izglītības kompetences centri (PIKC) reāli veic metodisko funkciju; • jautājumu un uzdevumu par TKC iekļaušana kvalifikācijas eksāmenos. ➤ Iespējams, IZM vajadzētu nodrošināt izglītības programmu satura (t.sk. par TKC) īstenošanas lielāku pārraudzību/atbalstu, ne tikai informatīvu semināru formā.
<p>Pedagoģi/ pedagoģu asociāciju pārstāvji (19)</p>	<ul style="list-style-type: none"> ➤ Visi respondenti ir informēti par TKC, bet paši nepilnīgi paskaidro, ko nozīmē (kādu saturu ietver) katra TKC; ➤ Bet neizjūt informācijas trūkumu par TKC; ➤ Paļaujas uz normatīvajiem dokumentiem- MK noteikumiem, profesijas standartiem un izglītības paraugprogrammām, kurās izglītības iestāde drīkst veikt izmaiņas, bet tas reti notiek (pārslodze); ➤ TKC īstenošanu uzskata par pašsaprotamu mācību procesa daļu, kas gan reti tiek atsevišķi uzsvērti; ➤ TKC tiek vērtētas formatīvajā vērtēšanā (ir kritēriji); ➤ Uzskata, ka pedagoģiem mazs piedāvājums tālākizglītības kursos par TKC; ➤ VISC mūžizglītības moduļi, kas visvairāk atspoguļo TKC saturu izglītības programmās ir novecojuši; daudzi neapmierināti, bet nav iniciatīvas pārmaiņu īstenošanai; ➤ Ikdienas darbā seko līdzīgi TKC īstenošanai izglītības programmās, kā arī seko TKC novērtēšanai; ➤ Būtiska nozīme TKC pilnveidošanā ir: <ul style="list-style-type: none"> • dažādiem ārpuskolas projektiem; • atsevišķiem pasākumiem ārpus mācību darba (semināri, konkursi, olimpiādes, sacensības); • mācību ekskursijām; • mācībām darba vidē; • interešu izglītībai; ➤ Uzskata, ka TKC pilnveidi izglītojamiem veicina portfolio veidošana.
<p>Eksperti, kuri iesaistīti mācību programmu izstrādē un novērtēšanā (direktoru vietnieki)</p>	<ul style="list-style-type: none"> ➤ Izglītības programmās tiek iekļauti 30% mūžizglītības moduļu saturam vai nu atsevišķi vai integrējot vispārīzglītojošos priekšmetos vai profesionālajos moduļos; ➤ TKC tiek vērtētas formatīvajā vērtēšanā (ir kritēriji); centralizētajos eksāmenos TKC iekļauta galvenokārt pastarpināti, netieši (piem. atklājas praktiskā darba izpildes laikā); ➤ Svarīgas TKC apgūvē ir mācību metodes - lai ieinteresētu, motivētu,

<p>izglītības darbā, metodiķi, metodiskā darba vadītāji) (8)</p>	<p>nevis piespiestu;</p> <ul style="list-style-type: none"> ➤ Apgūt TKC motivē iespējas piedalīties mobilitātes projektos; ➤ Liela loma mācību laikā sagatavotajam portfolio kā CV pielikumam, dodoties uz nākošo darba vietu; ➤ Jāatbalsta pedagogi, kuri strādā radoši, inovatīvi; ➤ Lielu darbu TKC pilnveidē veic grupas audzinātājs; ➤ Jāstiprina audzēkņu pašapziņa atbalstot profesijas izvēli; ➤ TKC apgūvē liela nozīme izglītojamo ekskursijām uzņēmumos, kad veidojas priekšstats par reālo darba vidi un savu piemērotību; ➤ TKC kompetences (svešvalodas, IKT, sociālās kompetences) nepieciešamas, lai izglītojamais varētu piedalīties pētnieciskajos projektos, kas arī motivē tās apgūt; ➤ Bez četrām TKC svarīgas ir tādas prasmes kā kritiskā domāšana, problēmu risināšana, prasme strādāt komandā, komunikācijas un sarunu risināšanas prasmes, analītiskās prasmes, radošums un starpkultūru prasmes.
<p>Darba devēju, arodbiedrību pārstāvji, (iesaistīti profesionālās izglītības dokumentu sagatavošanā, procesos) (6)</p>	<ul style="list-style-type: none"> ➤ Uzsver profesionālo kompetenču prioritāti izglītības procesā; ➤ Ir dzirdējuši par TKC, bet savā darbībā neizdala kā atsevišķu izglītības procesa sastāvdaļu; ➤ Uzskata, ka ir pilnīgi pietiekoši tas, kas par TKC ir iekļauts pašlaik spēkā esošajos normatīvajos dokumentos, atliek tikai īstenot dzīvē; ➤ Piedalās jauno profesiju standartu saskaņošanā un apstiprināšanā; ➤ Atzīst TKC nozīmīgumu gan mācoties, gan darba vietā; ➤ Pieaugušo tālākizglītība ir svarīgs valsts sociāli ekonomiskās vides komponents, kurā nozīmīga vieta ir TKC; ➤ Nozaru ekspertu padomju pārstāvji piedalās TKC formulēšanā izstrādājot, izvērtējot un saskaņojot jaunus profesiju standartu projektus; ➤ Darba devēji piedalās izglītības programmu pilveidošanā un jaunu izstrādē, t.sk. tajās iekļaujot visu intervijā izskatīto TKC apgūšanu; ➤ Svarīga darba devēju sadarbība ar izglītības iestādēm, pašvaldībām, sabiedriskajām organizācijām; ➤ Centralizētajos profesionālās kvalifikācijas eksāmenos darba devēju pārstāvji netieši vērtē arī TKC.

Interviju gaitā respondentiem tika lūgts TKC sarindot nozīmīguma secībā. Visās četrās respondentu grupās par nozīmīgāko tika nosaukta personiskā, sociālā kompetence un mācīšanās kompetence. Par otru svarīgāko PI profesionāli un darba devēju pārstāvji atzina uzņēmējdarbības kompetenci, savukārt, PI pedagogiem tāda bija kultūras izpratnes un izteiksmes kompetence. Vienoti par trešo pozīciju bija PI profesionāli un PI pedagogi to piešķirot pilsoniskajai kompetencei. Savukārt, PI metodiķu grupā šāda ranžēšana neizdevās, jo intervijās dominēja uzskats, ka visas TKC ir vienādi nozīmīgas un tās šādi nav salīdzināmas.

Secinājumi **Conclusions**

Mūžizglītība ir 21.gadsimta pamatvajadzība, kas palīdz dzīvot mainīgajā pasaulē. Arī Latvijas profesionālās izglītības sistēmai ir jāpiedalās aktuālo valsts sociāli ekonomisko izaicinājumu risināšanā.

Cilvēkiem ir vajadzīgs prasmju un kompetenču kopums, lai uzturētu vēlamo dzīves līmeni, lai būtu nodarbināti un uzturētu spējas strādāt, jo īpaši pārmaiņu laikā. Attīstīt kompetenci nozīmē arī izveidot pamatvērtības, kas pastāvīgi jāpilnveido.

Ejot kopsolī ar Eiropas Savienības izglītības politikas aktualitātēm būtiska vērība tiek pievērsta pārejai uz kompetenču izglītību un transversālo kompetenču iegūšanu. 2018.gadā par mūžizglītības izglītības politikas aktualitāti kļūst Eiropas Padomes "Ieteikums par pamatkompetencēm mūžizglītībā". Veiktais pētījums parādīja, ka Latvijas profesionālās izglītības normatīvajos dokumentos tiek iekļautas izglītības politikas aktualitātes, tostarp TKC.

Transversālās kompetences ietver nozīmīgus cilvēka darbības kognitīvos, afektīvos un sociālos aspektus, kas attiecas uz visiem cilvēka darbības virzieniem, tostarp, tās mijiedarbojoties veicina profesionālo kompetenču pilnveidi un otrādi.

Intervijas ar augstākā un vidējā vadības posma profesionālās izglītības nozares profesionāļiem, pedagogiem, izglītības darba vadītājiem, tsk. metodīkiem profesionālās izglītības iestādēs un darba devēju pārstāvjiem ļauj secināt, ka TKC ir universālas mūžizglītības kompetences, kuru apguvei Latvijā nepieciešama īpaša uzmanība visos profesionālās izglītības sistēmas līmeņos. TKC mūžizglītības kontekstā tiek vērtētas pat kā svarīgākas par profesionālajām kompetencēm. Bieži TKC apguve mācību procesā tiek iekļauta netieši (profesionālajos moduļos/priekšmetos), neizdalot kā atsevišķus tematus, kā tas ir mūžizglītības moduļos. Būtiska nozīme ir izglītojamo ārpusmācību aktivitātēm. Plašs izglītojamā portfolio, uzsākot darba gaitas, darba devēju ieskatā ir vērtīgs CV pielikums.

Summary

Lifelong learning is a basic need of the 21st century to help live in a changing world. The Latvian vocational education system must also participate in solving the current socio-economic challenges of the country.

People need a set of skills and competences to maintain the desired standard of living, to be employed and to maintain their ability to work, especially in times of change. Developing competence also means creating core values that need to be constantly improved.

Keeping pace with the current issues of the European Union's education policy, significant attention is paid to the transition to competence education and the acquisition of transversal competences. The Council of Europe "Recommendation on Key Competences in Lifelong Learning" (2018), will become a topicality of lifelong learning policy for a long time. The research showed that Latvian vocational education normative documents include topical issues of education policy, including TKC. Transversal competences include important cognitive, affective and social aspects of human activity that apply to all areas of human activity, including the development of professional competences through interaction and vice versa. Interviews with higher and middle management vocational education professionals, teachers, education supervisors, incl. methodologists in vocational education institutions and employers' representatives allow to conclude that TKC are universal lifelong learning competencies, the acquisition of which in Latvia requires special attention at all levels of the vocational education system. In the context of lifelong learning, TKCs are seen as even more important than professional competencies. Often the acquisition of TKC is included in the learning process indirectly (in professional modules / subjects), without separating them as separate topics, as in the case of lifelong learning modules. Extracurricular activities of learners are important. The opinion of employers is that a wide portfolio of the learner is a valuable CV appendix, when starting working life.

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THE PROBLEM OF NON-FORMAL ADULT EDUCATION QUALITY SERVICE PROVISION IN LOCAL MUNICIPALITIES OF LITHUANIA

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Abstract. *This article analyzes one of the most important and, simultaneously, the most problematic factors in the development of adult education as the implementation quality of Non-formal Adult Education (hereinafter NAE) at the local government level. The aim of this article is to reveal the understanding of Lithuanian municipal non-formal adult education coordinators about improving the quality of non-formal adult education services. The study has centered on a focus group (12 people) in which Lithuanian non-formal adult education coordinators from different municipalities discussed and shared their diverse opinions. According to the focus group participants, the quality assessment of educational services in local communities is required by the institutions or foundations financing the services, which at the same time indicate the criteria for assessing the quality of services and their fulfillment when reporting on the implementation of educational services. According to the participants of the study, Lithuanian municipalities should have more power in decision making on planning educational programs and services to meet the needs of the local population; they should expect stable funding guarantees from state institutions, which must first and foremost be interested in improving non-formal education services quality assessment.*

Keywords: *Local municipalities, non-formal adult education, quality of educational services.*

Introduction

Education quality assurance in the system of education in Lithuania is one of the priority goals in the implementation of education reform. The quality of education is identified as a Government priority for the implementing of education reform as is indicated in the Lithuanian Progress Strategy “Lithuania 2030” (2012), in the State Education Strategy for 2013-2022 (2013). Researchers (Barnett, 2009; Ruževičius, 2006; Želvys, 2003) approach the quality of education in multiple ways: it is seen as mastery,

compliance with the requirements of the task; quality is also a perfection, which is achieved when the result meets the needs of learners, standards and goals. The growing public interest in lifelong learning calls for a stronger focus on non-formal adult education (*further* NAE). State regulation and ensuring legal, systemic preconditions for the provision of non-formal education services are necessary for all social groups to be involved in non-formal education. The issue of quality assessment of educational activities is particularly relevant in the implementation of non-formal adult education. The state in its attempt to ensure the accessibility of non-formal education regulates by law that the provider of non-formal adult and continuing education is responsible for the quality of non-formal education. Attempts are often made to measure the quality of non-formal adult education on the basis of set guidelines for quality non-formal education. Criteria, assessment, control and supervision-based quality definition and assurance can obstruct achieving of the main goals of non-formal education, and can make non-formal education less flexible and attractive to learners. The procedure for quality improvement of non-formal adult education, assessment of activities, external evaluation, assessment of participants' progress and achievements financed from the state and / or municipal budgets are established by state institutions. Quality assurance of any other non-formal adult education provided at the expense of learners is not regulated in any way in Lithuania and could apparently be a matter of agreement between all stakeholders.

Some empirical research has been conducted in Lithuania on certain issues of adult education: on the state of non-formal adult education and the attitudes of the population and employers towards adult education (Tamošiūnas, Štutinienė, Filipavičienė, & Guseva, 2005), analysis of non-formal adult learning concepts in the context of lifelong learning (Linkaitytė, Šuliakaitė, & Navikienė, 2011), and on non-formal adult education in municipalities (Penkauskienė, 2017). However, there is a lack of research that would delve into the preconditions for improving the quality of non-formal adult education in Lithuania.

The aim of this article is to reveal the understanding of Lithuanian municipal non-formal adult education coordinators about improving the quality of non-formal adult education services. The following research question is asked: What obstacles and preconditions for the improvement of the quality of NAE services do the municipal coordinators based on their experience identify?

The Concept of the Education Quality

The concept of quality in the context of education has been used since a relatively recent time and it has moved into education from management. The shift of terms (quality, demand, supply, standards, service provider, etc.) from business to education can be explained by the onset of globalization in societies with fewer value selection criteria and replaced by free market forces based on competition, price, benefits and calculation. Literature provides diverse definitions of quality but many of them share a similar content: quality can be defined as meeting expectations, meeting and exceeding customer requirements, compliance with standards and specifications, suitability for use, degree of customer satisfaction (Aniskina, 2015; Latchem, 2014; Želvys, 2003). The UNESCO concept of the quality of education distinguishes two levels: the internal - the level of the learner operating in a learning environment, and the external - the level of the education system that creates and supports learning experiences. Increase in the accessibility of education might be augmented along with the measures to improve the quality of education (UNESCO, 2016). The Law on Education of the Republic of Lithuania (2011) states that the concept of the quality of education is developed by the society, education participants and education management entities. The quality of education is linked to the implementation of educational expectations that satisfy both consumers and education providers. R. Želvys et al. (Želvys, Dukynaitė, Vaitekaitis, & Jakaitienė, 2020) maintain that the quality of education has always been understood differently, as perceptions of quality depend on both the subjective attitudes of those who evaluate it and the context in which that evaluation takes place. Quality implementation encounter problems of its different perceptions. Understanding the quality of service providers and their users can vary and be seen as: quality as exclusivity, quality as compliance with standards, quality as a level of customer satisfaction, quality as an agreement, and quality as efficiency in achieving goals. Thus, the quality of education depends on what goals are set for education and how successfully they are achieved (Želvys et al., 2020).

According to A. Helmke (2012), the term “quality in education” can have different meanings. It distinguishes two important definitions of quality:

- quality as an inherent feature or characteristic of an object or phenomenon;
- quality as the excellence of an object or phenomenon, uniqueness, indicating the degree of goodness of the object or phenomenon.

Thus, definitions of quality depend on the value system, traditions, needs of society and indicate what, in the opinion of society and its group, an object or process should be (Barnett, 2009). Although not all of the concepts listed

can be applied to the context of education, several of them are used to analyze the quality of education: quality is meeting certain requirements and standards and quality is understood as compliance with the purpose. Quality is usually described by a number of key criteria, which are expressed in terms of indicators. The established quality criteria and indicators help to achieve and adhere to the principles of objectivity, accessibility, transparency and reliability of non-formal and informal learning achievement assessment. At each stage of the evaluation process, the evaluation criteria and indicators should be known in advance, the criteria should be easily established, and the indicators should be measurable (Stasiūnaitienė & Piščalkienė, 2012). According to S. Sjöberg (2019) it is rather problematic to evaluate the quality of education with indicators that are universal, i. y. applicable to all countries, regardless of education systems, social characteristics, culture, customs and traditions, living conditions, production methods, etc. R. Laužackas maintains that standards “help to ensure the quality of teaching. Standards always express the teaching guidelines, tasks, ideals that are pursued in the teaching process. They set <...> quality criteria” (Laužackas, 2000, p. 38). According to R. Želvys (2003), the development of criteria, standards and methods for quality assessment is the first stage in the process of control. Thus, in this case, quality assurance is related to control, as well as performance quality assessment (Želvys, 2003).

Research Methods

The choice of the qualitative research methodology was determined by the purpose of the research. For the qualitative research, the focus group method was chosen, reflecting with the study participants their work experience (Morgan, 2010). Article 8 part 2 of the Law on Non-formal Adult Education and Continuing Education of the Republic of Lithuania (2014) obliges municipalities to prepare an action plan for non-formal and informal adult education and to appoint a coordinator for its implementation. 12 Lithuanian non-formal adult education coordinators (10 women and 2 men) from different Lithuanian municipalities with 2 - 10 years of experience in planning, organizing and coordinating adult non-formal education services participated in the study 2020.

The participants in the study signed an informed consent form, by which they confirmed their voluntary participation in the study, and the researchers were obliged to ensure the confidentiality of personal data.

At the stage of data analysis, the discussion record was transcribed. The result of data transcription is a text which was deemed to be analyzed by the qualitative content analysis (Žydžiūnaite & Sabaliauskas, 2017) - a creative

thinking process to decode the meanings in the text, understand and identify the situation and development perspectives.

Results

Complications and Conditions for the Non-formal Adult Education Quality Enhancement

The analysis of the content of the study participants' interview data allowed to highlight the problems of quality assurance of NAE services implemented in the regional municipalities. The evaluation of the quality of NAE services is recognized by municipal coordinators as an area of responsibility for the activities they supervise, the implementation of which requires certain decisions at the governmental and municipal levels. The relevance and perspective benefits of the assessment of the quality of services in the NAE are acknowledged, but the development and improvement of the quality of services for the population is obstructed by: 1) planning of NAE services (covering the activities of targeted educational, self-expression, qualification improvement, general competence development programs) in municipalities without financing guarantees; (2) information dissemination, promoting various planned and implemented NAE training services to the population; (3) unclear criteria for assessing the quality of different NAE services.

Lack of stable financing of NAE services in municipalities. The annual planning and implementation of NSD programs is different in the countries' regional municipalities, small and large, according to the study participants. In some municipalities, the administrations annually allocate funds for the organization of non-formal education services for the local population, in others, when drawing up perspective plans for the NSD, no stable guaranteed funding is provided or only minimal financial resources are allocated.

“Here with those plans today someone said very much to the point that they did all formally, but if the plan is approved without money, it's already funny here, or invests some 2,000 let's say to a competition of non-formal education programmes. And learning, which we are implementing, is extended for the whole week, so how will you act without money. You will not do anything without money“.

“There are very different municipalities - there are some with 17 thousand planned, there are some who get nothing at all, and the plan needs to be implemented, plans are approved without money“.

Municipal coordinators annually submit NAE event / measure plans to municipal administrations, prepare projects and submit their applications to national funds, but this does not guarantee stable funding.

„We write and submit projects, then we saw that we are not included as potential applicants, dropped out of municipal budget institutions, then, we started through NGOs, then there was a problem recruiting people, and when those funds no longer reached us and...“. The organization of NAE services in individual regional municipalities is fragmented, depending on funding resources, and without project funding, the supply of training services becomes very limited. In the absence of financial resources, municipal administrations seek to coordinate and mobilize initiatives from private, non-governmental or public NAE training providers (for example, by organizing a NAE training week in the municipality). In other municipalities, the annual NAE plan includes educational programmes planned by the service providers - partners - and their activities, the financing of which is not the concern of the local government, but of other private or public service providers: *“And now how does the plan emerge, do you know this, for the training week? So they call service providers: “what shall you do, what shall you do”, and add up, they make it up, add up, and add up from all partners add up...“.*

The lack of dissemination of training, self-expression, general competencies, organization of qualification improvement services is determined by the disturbances of coordination of information and advertising about NAE services in regional municipalities. The coordinators noted that the population lacked concentrated information about the services provided or planned to be implemented in the NAE and their providers in regional cities, towns or rural communities. There is also a lack of a variety of forms of information dissemination, relevant messages for groups of the population on the websites of individual city municipalities, on television, in gathering places (church, library).

“Now we say, an individual wants to... it is December month, I want to study, where can I now find information in X city where about what is happening is posted ... there is no such thing as a common [place], what is happening... there is what is happening there, there, so where am I to look for... So everyone boils in their own juice, there is no common place“.

“We put up information on education and training of cultural workers, but for non-formal education alone there is no dissemination on the website - there is no place, for example, where pottery classes take place, some lectures, so all the information should be posted, everywhere - even in the church. If you just put it on the internet, it won't work here“.

In the municipalities of smaller cities, where the position of coordinator has not been established, there is no one responsible for collecting, storage,

dissemination of the information, and administration of the population and providers of NAE services. Then it appears that" in this district NAE, in my view, it takes place, only in each individual institution, without any manner of cooperation." The participants of the research - coordinators noticed a certain isolation and closedness of the providers of NAE services in the regions (*"everyone boils in their own juice, there is no common place... it is like competition"*) and competition, although they are acquainted with each other. Municipal administrations tend to require indicators and accountability from private and public NAE service providers, but do not care about their mobilization and coordination in order to use organizational resources efficiently and rationally.

"And now I hear, everywhere municipal politicians demand indicators, accountability of institutions, if they can do an event together, it is a no, but when done separately, then there is a problem of attracting people, and organizational resources."

Different funders and service providers of NAE services have different assessments of the quality of NAE services. According to the coordinators, the evaluation of the quality of organized NAE services is required by government institutions and foundations that provide funding. Funding authorities usually specify service quality assessment criteria and require a report. In such cases, the implementation of the NAE service quality assessment becomes the obligation of the service providers.

"But who can ask me about quality, and who will need it? Again, for those who give money. I myself encountered the very problem when we prepared [...], then came a call for me from the municipality and an question how do you ensure the quality of NAE programmes? That's what I'm writing at the end of my training. "

"If we take the law, it is written there, we have to ensure the quality of NAE programmes, I imagine that the quality criteria must be universal. "

The coordinators believe that universal principles and criteria for assessing the quality of NAE services should be defined and applied in all municipalities of the country. Municipalities that have made a decision on the financing of NAE programmes / training services, their implementation and quality assessment could put to life this consistently on an annual basis, as provided for in the Non-formal Adult Education Law (2018) and analyze the results and draw guidelines for the development of services for local residents.

"...you know, you can talk about quality first and demand it when you pay one money, remuneration. Then there may be planning, setting quality criteria..."

“Someone has to say what is the quality of NAE programmes, it is not for me to do it, in one municipality or another municipality the same criteria... for the municipality to decide, if this program is of quality and that is not.”

Municipalities monitor the quality of the implementation of NAE services in a fragmented and formal manner, applying minimum quantitative objective measurement tools, collecting data on service costs, number of service providers and recipients, age, gender, etc.

“They will carry out that monitoring, for example, the municipality, it will say what, how many were involved, they will ask of finances, age, gender, if it is needed by the Institute for Gender Equality, it will be a quantitative assessment of quality”.

“We are accustomed to having only objective quality measurement figures”.

Subjective qualitative evaluation of services, involving service users - participants of various training programmes, creating reflection spaces, although recognized by the coordinator as essential in adult education, is not defined and, therefore, not developed. Coordinators are of the opinion that, in the first instance, the quality of the NAE training should be the responsibility of the service organization, which provides quality assessment criteria. *“We also write that the provider is responsible for the quality of the training. I cannot tell if the library has conducted good training or poor training. If people come for the second time, then all is fine”.*

On the other hand, in the absence of a market for NAE services in the country that would operate on the basis of a formalized and defined quality assessment, municipal administrations have no guarantees to purchase the best quality services. The relevance of the competence of lecturers who are able to conduct trainings for adult groups is also recognized (*... if a lecturer does not work well, they will not be invited. If they meet the needs of clients, their service is quality services*) as an essential criterion for ensuring service quality.

Discussion and Recommendations

The main organizers and coordinators of NAE services for residents in Lithuania are regional city municipalities and their councils. Municipalities finance and plan NAE for separate population groups, they may provide NAE services themselves or delegate NAE services to other providers of NAE, i.e.: private institutions, non-governmental or public organizations (Order of the Minister of Education and Science of the Republic of Lithuania 2017). In the absence of an institution in Lithuania that would be responsible and have the competence to perform the functions of quality assessment of non-formal education and could provide methodological assistance to municipalities and

coordinators working there, ensuring the quality of services becomes difficult. The results of this study reveal that the evaluation of the quality of NAE programmes and services implemented in municipalities is formal and fragmentary, without the active involvement of service users in the analysis of quality improvement and anticipation of perspectives. Municipal coordinators do not have sufficient resources, assistance and tools to mobilize service providers (Penkauskienė, 2017), nor to address quality assessment and improvement issues. Local authorities are called upon by politicians to become responsible not only for stabilizing the financing of NAE, controlling expenditures, but also for attracting additional financial and private sector resources to develop quality education and access to services for the benefit of local communities and regional social and economic development (Butvilienė, 2014; Kurawa 2020; Rawat, Bouchon, & Nair 2015).

On the other hand, it is difficult for municipalities to independently achieve education quality and excellence standards due to the strict approach and control of the central government, without targeted methodological assistance in the issues of education quality assessment and improvement in a regional context (Smalskys, Stasiukynas, Gavkalova, & Lasevičiūtė, 2019). Next, the local government administration is more focused on financing formal education and in-service training and ensuring accessibility to meet the needs of the labor market than on the development of other NAE services focused on the development of individual groups` self-development / growth of general personality competencies (Butvilienė, 2014). In order to develop the market of the NAE sector and improve the quality of services, the principles of quality assessment must be transparent and systematically and consistently applied. The quality of NAE services is relative and depends on many things: context and conditions, rapidly changing needs of adult education, adult motivation and training tools, availability of services (Prakapas & Devenytė, 2014), therefore, it can be difficult to assess. However, there are some important principles that providers / organizers of education in the public and private sectors should follow: a) the relevance of the offered training to the needs of the target groups; b) exposing learners to the personal and social benefits of adult education; (c) strengthening partnerships with other education providers; d) cooperation with business and non-governmental organizations (NGOs); e) the use of online tools both in the development of adult education programmes and in raising awareness of the meaning of such education (in line with Strategies for improving participation and awareness of adult learning, COM, 2012).

Conclusions

The study revealed that the assessment of the quality of implementation of non-formal adult education activities differs in individual municipalities. Institutions or foundations that provide funding for training shall also specify quality evaluation criteria and require a report on the implementation of the training. Thus, the issue of quality assessment of training implementation is inseparable from the institution financing the training, in other words, when allocating funding for training implementation, quality assessment is also required. The problematic assessment of the quality of the implementation of non-formal adult education in the regions of the country is also related to the situation of the local municipality, when adult education activities are planned without funding guarantees or only minimal financial resources are allocated for population training. In the absence of guaranteed funding for adult learning activities, the quality assessment of adult learning is not formalized, and the criteria for quality assessment remain unclear. Therefore, it is necessary to enable Lithuanian municipalities to make decisions on the financing, implementation and quality assessment of planned adult learning programmes / activities, which would respond to the legal acts adopted in Lithuania and the needs of adults.

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SABIEDRĪBAS VESELĪBA
UN SPORTS
Public Health and Sport

PATIENTS NEED TO RECEIVE THE SAME KIND OF INFORMATION ABOUT THE SAME ISSUE FROM EACH PROFESSIONAL

Ilze Ansule

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Abstract. *The questionnaire has been developed from a validated instrument “Women’s Experience of Maternity Care” (author - National Health Service, (Great Britain, 2019) and adapted to the situation in Latvia. The permission to use it has been obtained from authors. The questionnaire is meant for women regardless of their health status during the perinatal period or who have no co-morbidities, diagnosed in perinatal period of care. The questionnaire is designed to find out patients' experiences of receiving healthcare and its compliance with the guidelines, identifying potential problems and creating opportunities to correct them. There were 50 patients in Maternity Hospital postpartum unit interviewed. 12 of them were women living with HIV. Results. One of five main comment themes was - patients felt the need to receive the same kind of information about the same issue from all health care professional regardless of staff changes on call. The women point out that they have no problems with content in communication process during intranatal period, at labor unit. The problem with different kind of information about the same matter is emerging in postpartum period, at maternity unit. This issue is bothering both groups of patients in postnatal period, those women who live with HIV and those who have no co-morbidities, diagnosed in perinatal period. This shows that there is different kind of knowledge and professional skills among health care professionals, even if they work in the same field, the same hospital and the same unit. There should be done more research to identify the source of this problem. Is it the different experience, knowledge, informational field where professionals seek for information or totally different reason for this phenomena.*

Keywords: *communication, medical personnel, perinatal health care, women`s experience.*

Introduction

World Health Organization (WHO) has been defined effective communication as one of the major key points in Standards for providing qualitative perinatal health care: “The aim of this standard is effective communication, which is an essential component of the experience of care

received by the patient and her family,” (WHO, 2016). In the same time in the duties of midwife is defined ability to give evidence based support and not only in Latvian language, but also in two foreign languages (VM, 2014). Keeping this in mind, there should be no excuses that information and care has not been given adequately on basis that women does not speak Latvian. The decision to make research for measuring the quality of perinatal health care thru patients reported experience is not unique, it has been done in other countries and showed significant results in improving quality of care: “The concept of experience of care as a critical aspect of ensuring high-quality childbirth care and improved woman-centered outcomes, and not just complementary to provision of routine clinical practices,” (Mukherjee et al., 2018; WHO, 2018).

The term “perinatal health care quality”, as Graham defines it: “Quality’ – recognizing the six elements of effectiveness, safety, timeliness, efficiency, equity and responsiveness to the preferences and needs and values of mothers and their families – as individuals and populations,” shows how important are women`s and their family needs (Graham, 2009). There is no more only definitions and list of what manipulations should be done, the major emphasis is on women`s needs or expectancies: “On the basis of several definitions in the literature, the WHO definition of quality of care is the extent to which health care services provided to individuals and patient populations improve desired health outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable and people-centred,” (WHO, 2016). Researches highlights problems in health care process communication if patients are different or healthy in traditional opinion: “Disabled women perceived greater problems regarding their maternity care, communication and involvement in decision making than non-disabled women,” (Malouf et al., 2015). As WHO report shows there is still stigma in perinatal care period for women living with HIV (WHO, 2016). These women are still seen as someone different and are not receiving the same attitude and information as other women: “There is a complex interplay of experiences of mistreatment and lack of support that impact women’s childbirth experiences and outcomes,” (Tuncalp et al., 2015; Lyndon et al., 2015). In 2018 WHO made clear that: “The guideline recognizes a “positive childbirth experience” as a significant end point for all women undergoing labour. It defines a positive childbirth experience as one that fulfils or exceeds a woman’s prior personal and sociocultural beliefs and expectations, including giving birth to a healthy baby in a clinically and psychologically safe environment with continuity of practical and emotional support from a birth companion(s) and kind, technically competent clinical staff,” (WHO, 2018). It changed all the concept of perinatal health care, from this moment it was made clear that there should be positive childbirth experience for every women regardless their health or social status. For health care professionals it was clear signal that performing correct manipulations does not mean patient

centred care: “Prioritize person-centred health and well-being, not only the prevention of death and morbidity, in accordance with a human rights-based approach,” (Lyndon et al., 2015; Madula, Kalembo, Hong Yu, Kaminga, 2018;WHO, 2016). Nowadays health practitioners should also be aware of in what way and how they speak to patient. As patients seek informotaion not only from professionals, but in media all around the World (Kamiński, 2020).

Aim

Gather the information about women’s, who are living with and without HIV, experience about perinatal health care in the last childbirth.

Method

This questionnaire was made in frame of a pilot study in the PhD thesis research “Quality of perinatal health care and it`s influencing factors for patients who are living with HIV in Latvia” carried out in of the Maternity Hospitals, in Latvia, using the structured questionnaire. The questionnaire has 7 sections about each perinatal health care period and breastfeeding, new born care, home care, household and comment section at the end for anything what women might want to tell or interviewer ask more about perinatal health care process in all together. In questionnaire last section is possible in free manner to ask about women`s perinatal health care experience. This has been done for two times with each person; first time at postpartum unit (using direct interview) and 8 – 10 weeks after childbirth (using telephone interview) to gather information about postpartum period. The questionnaire had been adapted according to the guidelines (Beaton et al., 2000). As the questionnaire is designed to find out patients' experiences of receiving healthcare and its compliance with the guidelines it is easy to find out the problem points. Prior to the interview, each respondent was explained the purpose of the study and the principle of volunteering. The information in pilot study was gathered from 50 women. Fifty-six women were addressed and six refused to participate in the pilot study. Women were addressed only after giving birth with a positive result, so that the principle of “making no harm” was observed. After filling the questions about medical history, women were asked to comment in free manner their experience and south’s about received perinatal health care.

Results

Problems with received different kind of information from medical personnel about the same issue appeared in pilot study equally in both groups;

those women who live with HIV and those who have no co-morbidities, diagnosed in perinatal period of care. The main six problem points in communication:

- concerns about different kind of information about the same issue during antenatal period;
- professional attitude towards patient; lack of given information and negative attitude was the only reason why women changed their health care provider during antenatal period;
- in early days of postpartum period women describe their anxiety about received different kind of information about the same issue almost every day;
- possible solution could be written guidelines, as they could be seen for both: patients and medical staff;
- need for empathy;
- seeking for “ultimate truth”.

Antenatal care

The women described their concerns about different kind of information about the same issue during antenatal period as very alarming. For example, gynecologist is describing their 14th week ultrasound as normal/usual. But professional who performed it was concerned about some development issues, as women understood it from his facial expressions, but did not explained to her what was the matter, when she asked about it.

“I asked what was the problem, but he just said to come for the second screening and then he will see.” (RD8)

There also could be discussion was it only misunderstood communication issues or professional attitude to patient. This women also added that she went to a different specialist for the next screening and was satisfied how everything was explained, without even asking.

The lack of given information and negative attitude was the only reason why women changed their health care provider during antenatal period.

“He did not explained anything. Just said come after three weeks and that was all. This other doctor explained everything. I even had no questions!” (RD9)

There were also reported negative attitude and misleading information about antenatal health care for women living with HIV.

“You can` t be a mother. What do you expect?” (RD 50)

After changing the health care giver, in different town, there were no problems in the way information has been given or content of it.

Giving birth and first days after

In early days of postpartum period women describe their anxiety about received different kind of information about the same issue almost every day.

“The suggestions of the nurses are different. One day they say one, another day they say another.” (RD7)

As it is the very difficult time for each women by itself this information clutter does not help. As women point out that they are really trying to do their best, as they have been told each morning, - in breast feeding, physical activities and nutrition aspects, but then comes the next morning with other personnel and information is completely different. Some women even pointed out that possible solution could be written guidelines, as they could be seen for both; patients and medical stuff (Lyndon et al., 2015).

There were reported also not-positive experience, not only about information, content, but attitude also.

“One day the pediatrician says one ... But yesterday said otherwise. Angry, but I'm already worried.” (RD1)

The women described their need for empathy during this challenging period of time, they not only have not received it, but even experienced angry attitude. The women were seeking for understanding and support. Even without asking, women suggested that possible reason for personnel angry attitude could be overwork.

There were also absolutely positive experience about received care and information.

“It`s absolutely fabulous! Everybody is so nice.” (RD45)

Postpartum period

As the main problem in information content women describe misunderstandings about their diet during breast feeding period.

“The GP said that I can`t eat apples and berries, but my midwife said that I can eat everything”. (RD 11)

Comments show women`s concerns about issue trying to be “a good mother”, but not succeeding. As they follow one professionals advice, but then comes another one, who says that they are making harm to their child. Women tell that after those misunderstandings they spend a lot of time in social media seeking for “ultimate truth”, as professionals have no consensus.

Discussion

All women regardless of their health status during the perinatal period, but especially those, who live with HIV, as they have more health issues and concerns, are seeking for supportive and well trained personnel: “Supportive and well-trained providers are vital to helping HIV-infected expectant mothers seek and adhere to prenatal care and HIV treatment,” (Aigbe, 2014).

During antenatal period there is no big differences between what are the women's values in care: "Evidence showed that women from high-, medium- and low-resource settings valued having a positive pregnancy experience, the components of which included the provision of effective clinical practices (interventions and tests, including nutritional supplements), relevant and timely information (including dietary and nutritional advice) and psychosocial and emotional support, by knowledgeable, supportive and respectful health-care practitioners, to optimize maternal and new-born health (high confidence in the evidence)" (Lyndon et al., WHO, 2016). The women described their essential need to know what are the possibilities for birth and possible scenarios: "Advice and support to the woman and her family in developing a birth and emergency preparedness plan. Provide appropriate health education to all pregnant women and their partners and families, including healthy lifestyles, healthy diet, smoking cessation where required, preparation for parenthood, relaxation therapy and/or other activities as required, such as exercises to prepare the woman for the process of birth," (WHO, 2007).

Why the correct information matters, especially during postnatal period? As the WHO data shows, it is a most critical period during the perinatal period, for both as for women, as new-borns: "The postnatal period is a critical phase in the lives of mothers and new-born babies. Most maternal and infant deaths occur during this time," and there should be unity in information from all the medical personnel (Yu, Lee, Sherwood & Kim 2018; WHO, 2013).

Women who described their anxiety added, that sometimes they don't know, is the current state of mind normal or they should be concerned. It is still different kind of guidelines for screening for PPD "There is little evidence to recommend first screening method over another; therefore, clinicians may choose the method most consistent with their personal preference, the patient population being served, and the practice setting", and other issue is medical personnel's communication with each other, - how they exchange with each other received information from patients (ACOG, 2012; Matzke, Houston, Fischer, & Bradshaw 2014).

Still there are other problems with personnel communication, as women reported, and they show similar results to WHO report on 2016: "Some health care providers at primary level show- low awareness about the scale of HIV problems and some reluctance to deal with HIV positive patients, stigma towards HIV patients, low motivation to carry out quality post-test HIV counselling" (WHO, 2016). As the Ministry of Health documents shows there is still lack of eagerness to be involved in perinatal health care for women living with HIV from medical personnel (VM, 2017).

Conclusions

As this pilot study shows there are different kind of knowledge and professional skills among health care professionals, even if they work in the same field, the same hospital and the same unit.

The one of possible explanations could be that they are from different generations and from different professional education systems. From other side we all live in “life long” learning era. There is no such thing anymore as: “I learned it at university.” Guidelines are changing, but they are available at the same time for every body via internet. There is still one issue and that is language barrier. There are medical professionals who still won't be able to catch up newest guidelines as they are not able to read them. Only after they have been translated. But it could not be an excuse for every time as there are a lot of guidelines in official sites in Latvian (VM, 2020; GINASOC, 2020; SPKC, 2017; E-veselība, 2019).

There are activists among medical professionals who share their knowledge of newest guidelines and research papers: “Effective leaders of change can arise from frontline individuals who may or may not already be identified as leaders” (Nathan, 2017; Kaminski, 2020).

There should be done more research work to look for possible reasons of differences in information content and its given form to patients in perinatal period.

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DISCOURSE ON PROFESSIONALISATION IN THE PRACTICE OF PUBLIC HEALTH PROFESSIONALS PROVIDING SERVICES TO PERSONS WITH DISABILITIES

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Abstract. *This article is aimed to discuss findings of the study on professionalisation in the practice of public health professionals who provide services to persons of all ages with disabilities. The following problematic questions are raised: how does a public health specialist become a professional competent in providing their services to all citizens, regardless of age or health status? What are the possible professionalisation ways and opportunities for public health professionals who provide services to persons of different age with disabilities? The article presents a theoretical discourse of the professionalisation process, as well as results of the qualitative research so as to provide insight into possible ways (opportunities) for professionalisation of public health professionals in providing services to persons of different ages with disabilities. The study is novel in that it discloses dimensions (professionalism and professionism) of a public health specialist's professionalisation process in working with persons of different ages with disabilities. As findings of the study show, the dimensions are theoretically inseparable from each other, though, with quite different ways of professionalisation in practice. The study has established that the ways of professionalisation (1.Work-based learning; 2.Reflection and activities; 3.Reflection on activities (formalisation of unexpressed competencies); 4.Reflection for activities; 5.Organisational culture and activities; 6.Integration/assimilation of knowledge) enable a person to develop existing competencies, to construct a professional identity through the integration of both aspects of relevance of professionalisation ways: practical activities and reflection.*

Keywords: *competencies, disability, professionalisation, public health professionals.*

Introduction

Public health care is a totality of organisational, legal, economic, technical, social, and medical measures that help to prevent diseases and injuries, to preserve and enhance a society's health, and is a part of the Lithuanian national

health system. The health care system in many countries (Lithuania is no exception) is complex, but rather difficult to manage in social terms (Glouberman & Mintzberg, 2002, p. 14), although its separate elements are quite simple. In a social context of an organisation, matters become more complicated when different elements of the said system, including the professionalisation of professionals, get into a whole. So, a better understanding or an insight into such a complex system needs an analysis from the perspective of phenomenology of various sciences (medicine, sociology, management, etc.). This is particularly the case for the provision of public health services or the professionalisation of respective players. Here, a provider or a recipient of the service is seen as an embodied social player, who is subjectively facing a disability in his or her daily life and is influenced by social relations, yet, at the same time he or she is creating, maintaining, and interpreting social reality through daily practices.

The review of study programmes of Lithuanian universities for public health professionals allows arguing that the graduates know and recognise principles and policies of modern public health, are able to analyse natural, work environment, demographic, life quality, behavioural and lifestyle characteristics, to assess health of the society and its separate groups, to develop and implement health promotion programmes, and to evaluate their effectiveness. The qualification obtained confers the right to work in municipal public health offices, public health centres, health care departments of county or municipal administrations, departments of the health insurance fund, personal health care institutions, educational establishments, etc. However, none of the study programmes indicates that the graduates will be able to provide their services to people of all ages with disabilities. Though, in reality they “...must arrange and implement public health promotion and education in the community, provide public health promotion and education services to various population groups” (Order of the Minister of Health of the Republic of Lithuania ..., 2018), including people of different ages with disabilities. For example, it should be noted that when providing public health promotion services, which include health education for citizens of all ages and medical conditions, dissemination of information on healthy lifestyles, promotion and formation of healthy lifestyles and reduction of behavioural risks factors in public health, a specialist needs not only biomedical, but also pedagogical, andragogical, communication knowledge and skills. However, study programmes do not emphasise such knowledge or skills that would presume awareness of the application of various educational approaches (pedagogy or andragogy). The relevance of the research is also determined by previous studies on the process of professionalisation of public health professionals in providing services to persons with disabilities of different age groups.

Since the study programmes do not emphasise the practice of public health professionals in providing services to people of all ages with disabilities, this situation *presupposes the following problematic research questions*: How does a public health specialist become a professional competent in providing their services to all citizens, regardless of age or health status? What are the possible professionalisation ways and opportunities for public health professionals who provide services to persons of different age with disabilities?

The *aim of this study* is to show the discourse on professionalisation in the practice of public health professionals, providing services to people of all ages with disabilities.

The research is based on the following theoretical and methodological provisions: a) the concept of professionalisation (Wittorski, 2007; 2008; 2009) and its dimensions (professionalism and professionism) (Bourdoncle, 2000); b) post-positivist philosophical ideas that cognition of reality has a certain structure of probability, while preference is given to an analysis of social reality, which is observed objectively and impartially by the researcher (Bourdieu & Wacquant, 1992). A key feature of the concept of post-positivism is a role of a scientific cognition instrument, which interconnects the subjectivity and objectivity of cognition (Baranauskienė, 2020). The data obtained by the qualitative research instrument can, therefore, be compared, summarised, and interpreted as an objective reflection of reality.

The study is novel in that it discloses the dimensions (professionalism and professionism) of a public health specialist's professionalisation process in working with persons of different ages with disabilities. As findings of the study show, the dimensions are theoretically inseparable from each other, though, with quite different ways of professionalisation in practice.

Theoretical Assumptions of the Research

Theoretically, professionalisation means the acquisition and development of specific knowledge and skills necessary to master situations in professional activities (the dimension of professionalism) and expresses the idea of construction and formation of social status, professional identity (the dimension of professionism) (Bourdoncle, 2000, p. 122). In practice, professionalisation and its different dimensions, i.e., *professionalism* and *professionism*, become a particularly relevant topic, when integrating, establishing oneself in an occupational activity, developing one's own professional activity project, or ensuring long-term social sustainability. These two dimensions of professionalisation actually not only manifest themselves differently, but complement and enrich each other, as well.

The process of professionalisation is analysed from a broad variety of perspectives; in terms of sociology, it is an object of in-depth study as a construction of new professions or occupations (Bourdoncle, 2000; Bresnen, 2013;); from educational (Graber & Haberey-Knuessi, 2017; Guillaumin & Wittorski, 2014; Levesque & Gervais, 2000; Poulin, 2016; Roquet, 2012; 2013; Roquet & Wittorski, 2013) and management perspectives – as a socialisation of individuals in their professional environment (Jacobs & Bosanac, 2006; Roquet & 2014). (a) (b); Broussal, Caire, Techene, Castel-Lacanal & De Boissezon, 2018), which ensures personal and professional development under the continuous competitiveness (Wittorski, 2009; 2012; Demazière, Roquet & Wittorski, 2012). Le Boterf, 2016) in choosing among a wide variety of professionalisation ways that are considered as opportunities for professionalisation (Wittorski, 2007, 2008).

G. Le Boterf (2016) identified seven criteria to validate a person's professionalism, as such a person: 1) takes appropriate initiatives in complex, evolving, and unprecedented situations; 2) keeps track of the development of profession at the current level; 3) anticipates and takes into account important aspects of a problematic situation or even details of a minor customer request or need; 4) runs relevant professional practice and mobilises appropriate work resources; 5) cooperates effectively and seeks necessary external assistance; 6) learns from experience so that to transfer it to other practical contexts or to pass it on to other persons; 7) performs in accordance with ethical requirements.

The process of professionalisation implies the difference between traditional occupational training in university and the acquisition of skills in other ways (Roquet, 2014 (a, b)) based on different logic. For example, professionalisation ways might base on action, reflection, organisational culture, integration, etc. (Wittorski, 2012). So, if a public health specialist seeks to become a professional, he or she must consider the ways, methods, and opportunities for professionalisation, even though there are still gaps in his or her academic preparation for professional practice. One of these opportunities is learning in practical situations of professional activities (Henrard, 2019). However, this is highly difficult with no assistance of a mentor or a tutor, experienced colleagues or a community of practitioners who would open up learning opportunities in the workplace, in a specific professional situation. All the more so as all existing official documents and regulations in public health emphasise specific tasks for a specialist in that field, but they do not mention any personal status, professional identity, or opportunities for professionalisation (Cianciara, Sugay, Rutyna, Urban, Piotrowicz, Gajewska, Lewtak & Gotlib, 2018, p. 140). Whereas everyone is well aware that "...public health services are to be professional to ensure global public health protection" (Burkle, 2014, p. 8). Therefore, we have to emphasise the relevance of the issue

of professionalisation again and again. Perhaps this is why some countries, such as Canada, are founding professional development groups for public health specialists – communities of practitioners (Richard, Chiochio, Essiembre, Tremblay, Lamy, Champagne & Beaudet, 2014), with corresponding training programmes (Tremblay, Brousselle, Richard & Beaudet, 2013).

In investigating the opportunities for professionalisation and professional development processes of players in learning situations of professional practice, R. Wittorski (2007) proposes to define professionalisation at three different levels:

- *professionalisation of activities*, by considering a social planning of activities as a whole;
- *professionalisation of individuals (players)*. Becoming a professional happens with a view to construct and/or obtain, develop the knowledge, skills, competencies, and professional identity necessary for professional activities;
- *professionalisation of organisations (structures)*, by emphasising the formalisation of the organisation's (or any other structure's) system of expertise.

In this study, we base on the above proposed concept of professionalisation of individuals (players) in the field of public health care so that to focus on specialists' competencies, personal status, prestige, construction of professional identity, and search for professionalisation opportunities.

R. Wittorski (2012) suggests discussing two aspects of the relevance of professionalisation: *practical activities*, that take place during internships, practical training, and professional practice, and *reflection* that emerges from theoretical training. Reflective practice is a purposeful intellectual activity in which individuals examine a situation or a problem on the basis of previous experience and seek to form new understanding, new knowledge that will ultimately affect their actions (Tremblay, Richard, Brousselle & Beaudet, 2014, p. 2). Linking the two aspects of the relevance of professionalisation does not mean an analysis of only one of the aspects, splitting or elimination of the second one. It is necessary to apply the principles of intelligibility and comprehensibility to professional practical activities. It is hoped that the both aspects of professionalisation (practical activities and reflection) can be linked by helping a person to understand the professional practical activities, to obtain new competencies, to construct professional identity through the ways of professionalisation. Linking of them might enable to restore general social representations.

Along with the definition of factors for the relevance of professionalisation, R. Wittorski (2007) presents a tool (possible ways, i.e., opportunities of

professionalisation) to analyse dynamics of the professionalisation supply and professional development of players. This tool allows examining the variety of forms and possible ways of professional activity arrangements that change the quantity and quality of tasks and actions in individuals' professional practice. Accordingly, they obtain new competencies and/or new knowledge, construct/reconstruct their professional behaviour and professional identity. R. Witorski's theoretical insights laid the groundwork for the following empirical study.

Methodology and Process of the Research

This empirical study was conducted in several phases, by using a qualitative research strategy.

First phase. At this phase of study, there were individual in-depth interviews conducted with public health professionals working in public health offices of different cities and towns (Klaipėda, Kaunas, Vilnius, Šiauliai and Panevėžys), with experience in providing health care services to persons with disabilities ($n=19$). The interviews were aimed to identify possible professionalisation ways or opportunities for public health professionals providing services to people of all ages with disabilities under the continuous competitiveness. The specialists were interviewed in October-November of 2020. Study participants were selected through the targeted criterion-based sampling. It enables researchers to select sample units based on a specific established criterion (s). Only those public health professionals who provide services to persons with disabilities were invited to participate. These study participants were expected to define possible ways or opportunities for the professionalisation of public health professionals providing services to people with disabilities in the context of ongoing competitiveness. Individual interviews helped the researchers to collect a wealth of useful information, to communicate flexibly with people, to learn important details that generate new insights, since visual contact allows observing both cognitive and emotional aspects of responses. Besides, the researchers were able to clarify their questions and, thus, to increase the likelihood of gaining useful information and making in-depth examination of the problem. The interview method was not aimed at mutual communication or sharing of experiences – instead, each research participant was encouraged to share their personal experiences and feelings.

During the individual interview, the questionnaire was gradually elaborated to details on the basis of theoretical insights and practical experience. The data were collected by asking all participants the same initial question “*What are the possible ways and opportunities for professionalisation of public health professionals who provide services to people with disabilities?*” It was followed

by clarifying interview questions to find out how the respondents describe the ways and opportunities of professionalisation. The interviews were recorded. In addition, the peculiarities of the informants' language, behaviour, and expression of emotions were recorded during the interviews. Interview duration was 58 minutes to 1 hour 15 minutes. After the session, remarks on the interviews were made, audio records were transcribed, and quotations from the informants' speeches were written down verbatim.

All participants were women ranging in age from 36 to 62 years. The participants' experience was 6 to 27 years.

Second phase. The obtained research data were examined using qualitative inductive and deductive content data analyses. The qualitative inductive content analysis consisted of open coding, creation and abstraction of categories (general description of the study based on the categories presented). Categories were created during the analysis process to describe the phenomenon of the professionalisation process under study, to increase understanding thereof, and to generate knowledge. The creation of categories and subcategories is the essence of the inductive content analysis; a text is interpreted on the basis of the research questions raised. The questions are answered through the developed categories and subcategories (Mayring, 2014).

The inductive content analysis was conducted in stages, which were followed in the processing of the research data obtained: 1) repeated reading of a text; 2) identification of key categories based on keywords; 3) breaking down of categories into subcategories; 4) interpretation of categories and subcategories and substantiation with evidence extracted from the text.

The data obtained during the interviews were processed using the qualitative deductive content analysis, since the researchers sought to replicate available data in a new context, to try categories, concepts, models, or hypotheses. The purpose of the deductive content analysis is conceptual validation or extension of the theory (Mayring, 2014).

Data for analysis were obtained through interviews with open-ended targeted questions which were developed according to pre-defined categories. During this analysis, there was a category matrix created based on R. Wittorski's (2007; 2008; 2014) ideas for the ways and opportunities of professionalisation.

Research ethics. In the study, the general ethical principles were followed:

- *The principle of voluntariness.* All participants were involved in the study voluntarily, of their free will. The subjects were informed about the purpose, the course, the planned duration of the study, their rights (to interrupt the interview at any time; not to answer unwanted questions; to control the amount of information they wanted to share). An oral consent of the subjects to participate in the study was obtained;

- *The principle of providing information on ethical issues.* The study participants were explained how their anonymity and confidentiality would be ensured, they were informed on when and how they would find out the results of the study, contact details of the researcher were provided;

- *The principle of confidentiality.* This issue was discussed at the beginning of the study. It was explained to participants exactly what the confidentiality limits might be in the context of a particular study. Participants in the research were assured that the information obtained during the study would only be applied for the purposes of the study and might only be used by the researcher. The confidentiality of information in analysing and publishing the research material was assured;

- *The principle of anonymity of subjects.* To ensure that this principle was really applied, information about the subjects was presented in a way not to reveal their identities. The participants' statements were transcribed and presented as a general text of the interview, so it was not possible to decipher the participants' identities.

None of the above principles of research ethics were violated during the study, neither any misunderstandings arose. During every meeting, a communication-friendly atmosphere was created, an opinion of each participant was heard, and respect was ensured.

Results of the Research: Possible Ways of Professionalisation of Public Health Professionals Providing Services to Persons of Different Ages with Disabilities

The main question of the interview is: What are the possible professionalisation ways (opportunities) for public health professionals providing services to persons with disabilities?

With reference to R. Wittorski (2007; 2008; 2012), in order to make the main research question more detailed, the study participants were asked to answer the following questions: What does work-based learning mean to you? How do you understand reflection and your occupation in providing services to people with disabilities? How are the construction and development of new competencies taking place in your practice? What changes in occupation, behaviours, and identity lie ahead? Who helps you to improve yourself in the organisation and how? Have you managed to integrate your existing knowledge into your personal knowledge system, given the situations in your professional activity? Has that knowledge been recognised and have you shared it with others?

The inductive content analysis of research data has allowed identifying the following categories and subcategories of possible ways or opportunities for professionalisation of public health professionals:

Table 1 Categories and Subcategories of Professionalisation Ways and Opportunities of Public Health Professionals Providing Services to Persons with Disabilities

Categories	Subcategories
1. Work-based learning (or, learning in the workplace)	1.1. Obtaining new competencies 1.2. Mastering new situations in professional activities 1.3. Construction and development of professional behaviour, professional identity
2. Reflection and activities	2.1. Changes and adjustment of theoretical knowledge transmission in the classroom and competency development during the practical training or internship 2.2. Changes in professional behaviour, professional identity based on performance reflection
3. Reflection on activities (formalisation of unexpressed competencies)	3.1. Competency generation (construction) during activities 3.2. Transformation of competencies into professional knowledge 3.3. Validation and recognition of competencies
4. Reflection for activities	4.1. Anticipation of future performance changes in professional practice 4.2. Anticipation of desirable effective performance criteria 4.3. Anticipation of desirable professional behaviour, professional identity
5. Organisational culture and activities	5.1. Mentor, adviser, peer, or other knowledge transmission 5.2. General construction of a new professional practice 5.3. Changes in attitudes towards the situation in professional activities when providing services to persons with disabilities
6. Integration/assimilation of knowledge	6.1. Integration of theoretical knowledge into one's own personal knowledge and skills system 6.2. Transformation of theoretical knowledge, taking into account specific situations in professional activities, when providing services to persons with disabilities 6.3. Recognition of newly created knowledge

So, six statement categories as well as supplementing and clarifying subcategories were obtained. The assigned subcategories and respective illustrating fragments from the interviews are provided in the tables below.

**Table 2 Fragments and Statements Illustrating the Subcategories under the Category (1)
“Work-based Learning”**

Subcategory	Fragments illustrating the interview
1.1. Obtaining new competencies	<p><i><...can't say that we didn't know anything about disability back in the years of university, ... we knew but we didn't know much about how to carry out preventive activities for people of different ages with disabilities>; <no one, no teacher can teach competencies, we obtain them, we get them here, in the workplace>; <...there is a specific description of competencies provided for in the job instructions, you need not just to know them, but to obtain them, too; you might sit in the classroom and read them, know them, but when you start acting, things look different>; <...it was good for us that we had the opportunity to watch in the workplace how senior colleagues provided services to people of all ages with disabilities>; <...I was personally aided and taught by my colleague who had been giving classes for adults and children with disabilities for a long time, and I should say that they were quite different in their methods>; <...I conducted safety training for people with disabilities ... at first it was not perfect; I saw that I was doing wrong, my peer watched me and then told me what was wrong>; <...I kept watching others work for years as I was very anxious that I would fail, I did not feel confident and I really did not want to hurt the dignity of people with disabilities>; <...those discussions after work were both much-needed and intimidating, it is not fun when you are shown your errors, but so it goes... you will not learn otherwise>; <... isn't it possible to agree that sometimes errors could be more tolerated></i></p>
1.2. Mastering new situations in professional activities	<p><i><...it took a long time for me to start providing better services to people with disabilities... many new situations arose, I did not know how to work with children with disabilities>; <...because every time a new group, new people come to you, and you feel like you can't apply everything from the previous experience, you need to change something again or you don't know something at all>; <...a new practical situation stays new until you master it, but I like new things>; <...when you face a new situation, at first, you feel anxious, then you start thinking what it is about, what you can apply now, what is needed and what is not, you also ask for advice, you inquire, read something and all is going OK>; <...one way or another, a new situation is good as we grow and improve ourselves through them>; <...my competencies are a puzzle made up of managing each new situation, of course, not without the help of colleagues></i></p>

<p>1.3. Construction and development of professional behaviour, professional identity</p>	<p><i><...if you know what needs to be done, you do it the right way, then the right professional behaviour develops; though, after graduation, I really didn't know how to teach, to give classes>; <...but to know what you do, how you do, you need to have knowledge, not just experience>; <...during my internship in bachelor studies, I saw what a good specialist should be, I have my own vision, I try to become what I would like to be>; <...only after starting the practice, you find what you really should be like because you are influenced by colleagues, clients, managers...>; <...upon gaining experience, you can see the difference between who you were and who you become>; <...many new situations which you must master change both your behaviour and yourself></i></p>
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The first way of professionalisation corresponds to the model of work-based learning: new situations in professional activities oblige a person to obtain new competencies. They can also be obtained through trials and errors: this is the logic of action. This usually happens in a well-known professional situation (e.g., during an internship or practical training). However, once a player on this way faces a new practical situation, he or she often unconsciously corrects his or her behaviour, constructs/reconstructs his or her professional identity. Each time a new situation arises, an individual will repeat or reinforce that behaviour and identity.

Table 3 Fragments and Statements Illustrating the Subcategories under the Category (2) “Reflection and Activities”

Subcategory	Fragments illustrating the interview
<p>2.1. Changes and adjustment of theoretical knowledge transmission in the classroom and competency development during the practical training or internship</p>	<p><i><...during my undergraduate years, I understood very well that the knowledge gained in the classroom and the experience gained during the internship had to match; but did it always match?>; <...while studying and working, it is obviously difficult but valuable, because my knowledge sometimes updates the previous knowledge of my colleagues, I feel proud in such cases>; <...I always think in a practical situation, what I know from my studies on the subject, then it is easier to act; but sometimes I don't remember anything...>; <...in my opinion, practice and specific activities are intended for your success, while studies and theory – for your understanding. These two things can in no way be separated>; <...but we should not forget that public offices still have employees who do not have any special qualifications in public health, even though they provide the same services>; <...they attend a lot of various courses, workshops and their experience is powerful, it is, nonetheless, a combination of knowledge and competencies></i></p>
<p>2.2. Changes in professional behaviour,</p>	<p><i><...I finish my job and think about what I could do better next time to feel more successful, more confident>; <...we have the tradition in our office: we gather once a month and tell each other what we would like to</i></p>

professional identity based on performance reflection	<i>do differently, better than we did, what went rather wrong...>; <...if I compared myself a few years ago to the current “me”, I would hardly recognise that timid, under-confident girl who didn’t know how to go to the health promotion session tomorrow and what to say to that group of disabled children>; <...I always ask myself if now I really understand what it means to provide services to people with disabilities, and this “pushes” me to go deeper and deeper into myself, into my work, this changes me... I found more empathy and understanding of others in myself>; <...reflection is more than just a process, it is also a competency that helps me empathise with the state of a disabled person></i>
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The second way of professionalisation is related to the changes and adjustment of theoretical knowledge transmission in the classroom and competency development during the practical training or internship: this is the logic of reflection and action. When performing a new task, an individual consciously changes his or her behaviour on the basis of the reflection of action.

Table 4 Fragments and Statements Illustrating the Subcategories under the Category (3) “Reflection on Activities (formalisation of unexpressed competencies)”

Subcategory	Fragments illustrating the interview
3.1. Competency generation (construction) during activities	<i><...you’ll have no competencies until you start working yourself>; <...when you do, “taste” a job yourself, it looks completely different, it either works out or doesn’t>; <...you may know how to do a task, but competencies come only when you start to do it>; <...of course, it is not fun to start a new job without knowing how to do it, but there is also another way – through errors and trials></i>
3.2. Transformation of competencies into professional knowledge	<i><...it is not so easy to put into words what you do>; <...as long as you find no right words to explain your activity, you cannot say that you are competent>; <...if I analyse my activity, if I can describe it in words to another person, to myself, only then it means that I got it, I mastered, learned it, I managed>; <...this is the way you accumulate experience, practical knowledge and develop competencies>; <...by reflecting, a future specialist obtains “invisible” knowledge and skills, so he can choose the right strategies, make adequate decisions not only in professional activities, but in various life situations, too></i>
3.3. Validation and recognition of competencies	<i><...naturally, not just you, but other persons as well must acknowledge and validate your competence>; <...if colleagues say that I am unsatisfactory in my job performance, I should listen to them; on the other hand, it may not be just a matter of goodwill, given today's competitive environment>; <...there is an evaluation of performance taking place; when my performance is acknowledged as appropriate, my competencies are acknowledged, too>; <...service users judge my performance, I kept comparing the results of my performance evaluation, I see how they changed over the years. And that change went in a positive direction></i>

The third way of professionalisation is the formalisation of unexpressed competencies, whereby competencies are generated (constructed) during an action and then turn into practical knowledge. Therefore, competencies need to be expressed in words, and the latter are to be transformed into communicable and professionally validated knowledge. Such knowledge, thus, is well understood and can be passed on to other people: this is the logic of reflection on action. An individual analyses an action retrospectively in order to better understand it. By perceiving his or her actions, in particular, by analysing his or her practice, he or she accumulates knowledge of actions.

Table 5 Fragments and Statements Illustrating the Subcategories under the Category (4) “Reflection for Activities”

Subcategory	Fragments illustrating the interview
4.1. Anticipation of future performance changes in professional practice	<i><...in order to anticipate changes in performance, it is important to actualise the connection between theory and practice, the interaction of personal and professional experience in professional activities, otherwise it will fail>; <...by reflecting, we get to know ourselves, we look at the same problem from different perspectives, reflect not only on positive but also on negative experiences, and perceive our weaknesses and strengths; all of which allow us to anticipate future changes in our performance>; <...we must all be reflective practitioners, constantly develop our competencies needed for successful future professional activities></i>
4.2. Anticipation of desirable effective performance criteria	<i><...not all effective performance criteria are provided for in job descriptions, daily tasks rather often show how effective our performance might be>; <...of course, an actual professional activity may differ from the one provided for in a job description, and the criteria are often specified by the manager of the unit>; <...it is a good thing if a whole team agrees on the criteria for effective performance, but sometimes, if they are not formally documented, misunderstanding may arise>; <...what may work for me may not seem effective to my manager, consensus is needed, therefore, common criteria are necessary></i>
4.3. Anticipation of desirable professional behaviour, professional identity	<i><...when we know the performance criteria, we can anticipate the desired behaviour>; <...and the behaviour can show whether a person is our kind of guy, a professional of our field or not>; <...after all, it happens that a person looks like working, doing his best, but our occupation does not fit him, he is not our kind of guy>; <...not everyone fits to work with people with disabilities, not everyone can work with children, on the contrary, others do not like working with adults>; <...therefore, given the performance criteria, such as those defining the activities of a public health professional in the provision of services to people of all ages with disabilities, you should definitely need to try again answering the question of who I am in a particular professional situation></i>

The fourth way of professionalisation is known as the logic of reflection for action. These are situations where professionals (specialists) of competency development teams or problem-solving teams define a new practice in advance, taking into account the effective performance criteria that they will introduce (or would like to introduce) in their professional activities. This is a phase of pre-reflection to anticipate changes in future actions.

Table 6 Fragments and Statements Illustrating the Subcategories under the Category (5) “Organisational Culture and Activities”

Subcategory	Fragments illustrating the interview
5.1. Mentor, adviser, peer, or other knowledge transmission	<...with the help of a peer, a mentor, one learns to identify their attitudes, positions, and values, to integrate new understanding and to develop generalisations that allow making positive changes in their learning or future professional situations>; <...a peer’s or a mentor’s objective cooperation, giving feedback on learning effectiveness and outcomes help a future professional to monitor their learning and understand the knowledge system>; <...rightly so, ‘Show me and I will understand.’ A mentor’s work is invaluable>; <...it would be great for an organisation’s cultural policy to have a clear objective to incorporate mentorship>
5.2. General construction of a new professional practice	<...when employees are proud of their work, when their job is interesting and important to them, when they are loyal to the organisation, when employee mistakes are tolerated, when conflicts between employees are resolved through negotiations – yes, then it is possible to construct new practices together; in brief, it depends on many things>
5.3. Changes in attitudes towards the situation in professional activities when providing services to persons with disabilities	<...only a mentor or a peer being in good faith can clearly show how to do the job, who owns the fruits of work, the relations with supervisors and other institutions>; <...a peer, a mentor, an adviser help to understand what people’s communication norms, control, priority of spiritual or material values should be, how and in what language to express ideas and relations, what symbols reflect the organisational culture>; <...people’s relations with the state, legal and political methods of maintaining order>; <...organisational culture can help a professional not only to understand but also to change their attitude towards our relationship with the state, legal and political policing requirements>; <...in the absence of clear beliefs or values, one may not understand how to make change in the development of one’s activities>; <...in order to change our approach to a practical situation, we need to know the core values of the organisation that are recognised>

The fifth way of professionalisation implicates situations in professional activities, when a third party (a peer, a tutor, a mentor, an adviser, etc.) conducts the transmission of knowledge and general construction of new practices, modifies an approach to a professional situation. This is the *logic of cultural expression of an organisation in terms of action*. In this case, the third party

(a peer, a tutor, a mentor, an adviser, etc.) supports the activities carried out, contributes by transmitting the existing knowledge, and, thus, enables a future professional to look at the activities differently.

Table 7 Fragments and Statements Illustrating the Subcategories under the Category (6) “Integration/assimilation of Knowledge”

Subcategory	Fragments illustrating the interview
6.1. Integration of theoretical knowledge into one’s own personal knowledge and skills system	<...there is no practice without theory, and vice versa>; <...an action is often based on a theory; it is not so much important whether a person knows that such a theory exists – more important that this theory becomes part of your occupation, your personal experience>; <...I believe that theoretical knowledge is the basis for successful practice>
6.2. Transformation of theoretical knowledge, taking into account specific situations in professional activities, when providing services to persons with disabilities	<...in many real-life situations in professional activities, I was able to effectively apply the knowledge obtained in studies>; <...everyone individually seeks to understand theories, to identify their elements, and to apply them in new practical situations by reflecting on, substantiating, and interpreting their actions>; <...while working, I finally realised how theory could be linked to practice>; <...for theory to turn into practical skills, competencies, you need experience, some particular professional aspiration>
6.3. Recognition of newly created knowledge	<...knowledge gained from experience or practical activity is not always correct>; <...it would be great if that knowledge was verified by scholars in our field>; <...after all, reading, keeping track of the latest literature allows understanding whether the knowledge created in practice is sound and correct>; <...new knowledge is created in our practical activities not so often>

Theoretical knowledge, obtained in learning by the sixth way of professionalisation, is integrated by individuals into their personal knowledge and skills system. The system, correspondingly, will be the framework for different skills that acquire forms of different competencies, as circumstances require. Learning conveys theoretical knowledge that individuals will need to transform as suited the situations in professional activities. This is the logic of integration/assimilation. In this case, a person uses documents, information resources, reading, and exercises to develop his or her skills. Therefore, it is a pathway oriented towards theory rather than a person’s practical activities.

Conclusions

The global economy brings not just threats and risks, but opportunities for professionalisation, as well, by gaining a competitive advantage in different ways.

The study shows that the professionalisation of public health specialists shifts to professional activities after their graduation and that professionalisation ways (or, in other words, opportunities) may vary. The study has established that the ways of professionalisation (1. Work-based learning; 2. Reflection and activities; 3. Reflection on activities (formalisation of unexpressed competencies); 4. Reflection for activities; 5. Organisational culture and activities; 6. Integration/assimilation of knowledge) enable a person to develop existing competencies, to construct a professional identity through the integration of both aspects of relevance of professionalisation ways: practical activities and reflection. One of them is *Work-based learning*. In obtaining new competencies through professional activities, the study participants emphasised: the need for preventive activities, health care services for people of all ages with disabilities, tolerance of professional errors, trust, monitoring by experienced peers, performance analysis, peer support, independent learning, and acquisition of competencies in activities. In mastering new situations in professional activity, the study participants indicated the following aspects: new situations emerging in professional activity, time needed for mastering them, peer support, construction of competencies, development thereof. In constructing and developing professional behaviour and professional identity, the following was important for the research participants: understanding of activities, need for theoretical knowledge, impact of new situations and environment on behaviour, identity, and changes in the latter.

The second pathway to professionalisation, as the study shows, is *Reflection and professional activity*. The coherence of the obtained theoretical knowledge and experience, as well as its benefits, support in application of reflection during professional activities were important for the study participants. The participants of the research believe that, based on the reflection of activities, changes in professional behaviour and professional identity are possible.

The third possible way of professionalisation of public health professionals is *Reflection on activities (formalisation of unexpressed competencies)*. The research participants, speaking on this issue, emphasised the construction of competencies in and through activities, the expression of existing competencies in words, communication, accumulation of knowledge gained through experience, performance evaluation, recognition, linking with existing competencies, and validation of knowledge gained through activities.

The fourth possible pathway to professionalisation is *Reflection for activities*. The following main statements were accentuated in the speeches of the research participants: links between reflection and changes in activity, self-cognition and cognition of one's activities through reflection, common responsibility for effective performance criteria, impact of activities, of anticipating criteria for desirable behaviours on the identity of public health professionals providing services to persons with disabilities.

The fifth possible way of professionalisation of public health professionals is *Organisational culture and activities*. The research found that the transmission of knowledge in a professional situation, while providing services to people of different ages with disabilities, might take place with assistance of peers, a mentor, an adviser, or other persons. The participants of the research indicated the following factors for ensuring the construction of general activities: pride, interest in their work, loyalty to the organisation, conflict resolution, etc. A change in the attitude towards a professional situation in the provision of services to persons with disabilities depends on the economic, social, and political cultural context of the organisation favourable to the specialist.

The last, sixth possible way of professionalisation of public health professionals is *Integration/assimilation of knowledge*. The ability to integrate theoretical knowledge into practice and vice versa, as one of the goals of professional development, seemed to be of high importance to the study participants. Therefore, the following factors were emphasised during the research: perception of the importance of theory in practical activities; giving a sense to knowledge in practical activities. The transformation of theoretical knowledge takes into account specific practical situations in the provision of services to persons with disabilities. It is, therefore, necessary to individualise the coherence of theory and practice with due regard to the following elements: the perspective of experience, knowledge, aspirations and activity. It is however acknowledged that knowledge created in experience is not always scientifically correct, therefore, it must be validated and recognised.

The study has revealed that there are two concepts merging in the process of professionalisation: *learning* (with the need for new knowledge and competencies to be obtained) and the *acquisition of competencies*, which means becoming a professional. The results of the study show that the dimensions of professionalisation of individuals (professionalism and professionism) are manifested by choosing one or a combining several different ways thereof, deemed as opportunities. The choice of opportunities (ways) for professionalisation is necessary when a public health professional, providing services to persons of different ages with disabilities, pursues new competencies, new knowledge required for the performance of professional

activities (professionalism). The same applies to the needs of constructing professional identity, social status, consolidating prestige (professionism). Both meanings of the professionalisation process, i.e., professionalism and professionism, should be particularly relevant for both those responsible for training future professionals and an organisation itself, since professionalisation is a continuous process of becoming professionals, given the available content of the profession and future changes in professional activities. After all, becoming a professional is the only way to secure a long-term competitive advantage for yourself and your organisation.

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PHARMACEUTICAL CARE AND EFFECTIVE COMMUNICATION WITH CUSTOMERS

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Abstract. Nowadays, the provision of pharmaceutical care and effective communication with customers are being discussed more often. A pharmacist is a specialist in his field with specific knowledge in the field of pharmacy. Therefore, the trust from the customer's side and a kind, informative, and professional approach from the pharmacist's side are very important in this case. Objective: To clarify what knowledge do the pharmacy customers have about pharmaceutical care and how satisfied they are with the pharmaceutical care services. The research was conducted using a quantitative survey, the statistical analysis of the obtained data was carried out using data processing software Microsoft Office Excel 2010, 267 respondents from various regions of Latvia were surveyed. Only 37% of respondents understand meaning of pharmaceutical care. This means that most of the customers are unaware of the duties and responsibilities of a pharmacist. Most of the respondents associate pharmaceutical care with medication dispense, consultation and good customer service. It would be necessary to inform society about pharmaceutical care and its importance in healthcare. Conclusions: The hypothesis put forward in the thesis confirms that society needs to be informed about pharmaceutical care, and pharmacist duties and responsibilities.

Keywords: duties and responsibilities of a pharmacist, healthcare, pharmaceutical care, pharmacist, pharmacy.

Introduction

The pharmaceutical industry has changed considerably in the last years. Roles of pharmacists constantly continue to develop within the constantly changing environment of healthcare. Occupation of a pharmacist faces new possibilities and challenges; therefore, it is necessary to focus on new ways how the occupation of a pharmacist can create added value in customer care. Reforms

in healthcare industry have accelerated these changes and have created a favourable environment for new, innovative practices and roles of pharmacy that have a notable added value in ensuring the management of medical treatment. Pharmacists nowadays have given attention to the importance of interaction between the pharmacist and the patient. It is important for a pharmacist to promote public health by preventing diseases, lengthening lifespan, and facilitating the state of health of the entire population. By establishing good standards of healthcare practice, the best pharmaceutical care would be ensured for patients (Blouin, Michael & Adams, 2017). Evidence increases about the influence of pharmacists on the clinical and economical results, and this indicates in general about the improvement of therapeutic results (Avalere Health, 2014).

The duties of a pharmacist are to facilitate the improvement of health and to help patients that are having health problems gain the greatest possible benefit from using medicines (Allemann et al., 2014). The philosophy of this mission is formed from six fundamental principles in accordance with the World Health Organisation (2011) and the International Pharmaceutical Federation (2018):

- 1) the pharmacist is easily accessible to patients both by a previous agreement and without it,
- 2) the pharmacist discovers and solves health-related problems within his competence,
- 3) the pharmacist provides health promoting services,
- 4) the pharmacist facilitates the use efficiency of medicines,
- 5) the pharmacist prevents possible damage that would be caused by medicines,
- 6) the pharmacist facilitates the responsible use of limited healthcare resources.

According to the Pharmaceutical Law of the Republic of Latvia - pharmaceutical care is a component of healthcare, which is carried out by a pharmacist within his or her competence by providing pharmaco-therapeutic consultations, information concerning medicinal products and their use. Within such care is also included supervision of the use of medicinal products by permanent customers, distribution of medicinal products and other healthcare products, prophylaxis and promotion products, preparation of medicinal products, manufacturing of medicinal products, promotion of health and disease prophylaxis on the basis of newest scientific achievements and by taking into account the interests of the customers, as well as ensuring customer data protection within the scope of his or her competence (Pharmacy Law, 1997). In 2014 the Latvian Pharmacist Association developed the project “Standards and Quality Indicators of Pharmaceutical Care” that is intended for improving the operation of pharmacies and the pharmaceutical care (Latvian Pharmacist Association, 2014).

The efficiency of a patient's therapy depends on the patient's satisfaction with the healthcare (Xesfingi & Vozikis, 2016). There are few studies (carried out in pharmacies) about the patient's satisfaction with pharmaceutical care (in comparison with the amount of studies about care in hospital environment) (Bratkowska, Religioni, Krysiński, & Merks, 2020). Patient-centred care that could be carried out also in pharmacies is topical (Wolters, van Hulsten, Blom, & Bouvy, 2017). Therefore, it is necessary to evaluate the patients' satisfaction with services provided in pharmacies. This information could help improve pharmaceutical care standards and develop pharmacy student curriculum accordingly.

Goal of the research: To determine what knowledge do the pharmacy visitors have about pharmaceutical care, what information do they receive when making purchases in pharmacies, and how satisfied they are with pharmaceutical care services.

Materials and Methods

The research was conducted in Latvia. Quantitative research method was used in the research. The questionnaire was carried out from 27 March 2020 until 2 April 2020. The questionnaire was drawn up using Likert scale and using answer format of 1-5, where the smallest and largest number denotes two contrary extremes, for example, 1 - "totally unimportant" and 5 - "very important". Answers in the questionnaire were drawn up in order to clarify the opinions of respondents about the provision of pharmaceutical care in pharmacies.

In the beginning of the questionnaire the sex, age, place of residence, and the place of shopping was enquired. Next question was to identify the factors that influence the selection of a pharmacy. Then followed questions about the pharmacy visitor's knowledge about pharmaceutical care and the main duties of a pharmacist. Next section is about the evaluation of the quality of pharmacist's consultations. Then followed questions about the contents of consultations provided by the pharmacist and if information that is defined in the standards of the Latvian Pharmacist Association is provided. In the end it was enquired how the patients evaluate the role of a pharmacist in the provision of healthcare, and the question No. 7 was the overall satisfaction of patients with the services provided by the pharmacist.

The questionnaire was distributed to the population of Latvia via e-mail and social media. 267 responses were acquired, which then were analysed, and their results were summarized using various charts. Sample size 267 respondents provide a 3% margin of error to estimate the mean value of continuous data at the alpha level of 0.05, which is generally accepted in educational and social research.

The results of the research conducted in Latvia were analysed, and the results were compared with similar researches-including the results of a research carried out in Jordan, because it had very similar questionnaire structure. Some studies were excluded from comparison due to difference in healthcare systems.

Results

The questionnaire of the research in Latvia was filled out by 222 women and 45 men, which constitutes 83.1 % women and 16.9 % men.

Distribution of respondents by age was determined. The largest percentage share in Latvia consisted of 30-39 year old respondents (constituted 31 %), next largest share was 40-49 year olds (27 %), followed by 18-29 year olds (22 %). Therefore, the largest part of the respondents (80 %) was 18-49 year olds. The smallest percentage part of respondents in Latvia was aged 60 and more years (18 respondents, which constitutes 7 %). This could mean that mostly persons of newer generations are involved in filling out questionnaires in social media.

Review of the gender and age distribution in the Latvia research indicates the following: the largest number of female respondents were in the age group 30-39 (which was 71 women) and 40-49 (62 women accordingly); however for men the distribution was more (in the age group of 18-49 years). However, when looking at the age group of above 70 years - there were only 2 female respondents and 5 male respondents; yet in the age group of 60-69 year olds there were 10 females yet only 1 male.

Respondent's places of residence and places of shopping

The distribution of respondents by place of residence was the following: 45% were from Riga and the remaining 55 % were from other cities and rural regions. Opinions of respondents from various regions were obtained. It is positive that the capital city Riga with its opinions is not dominating. In the Jordan questionnaire 71 % of respondents were from the central city and only 29 % lived in rural regions (Mukattash et al., 2018).

Data indicates that people do not always shop where they live. For example, the respondents living in the historical region of Zemgale are shopping both in cities of Zemgale (19) and in pharmacies of rural regions (7), and also in Riga (6). Respondents living in Vidzeme are also shopping both in their cities, in pharmacies of rural regions, and in Riga. This could be explained by the fact that many respondents are probably working in Riga or are often visiting it. For instance - the respondents living in Latgale mainly are shopping also in other cities (30), in rural regions (13), and only 1 respondent is shopping in Riga. The same is true in Kurzeme, where only 1 respondent was shopping in Riga. Whereas from the respondents living in Riga (121) only 6 were shopping in rural regions.

Pharmacy location might affect costumers satisfaction with provided care (Malewski, Ream & Gaither, 2015).

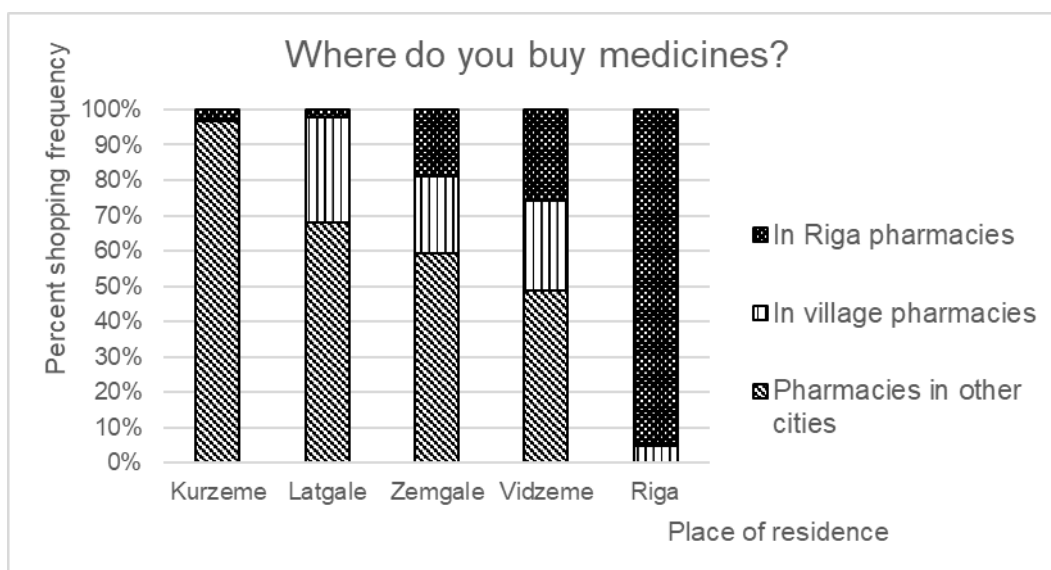


Figure 1 Respondent's Place of Residence and Places of Shopping

Factors that influence the selection of a pharmacy

Pictures were used to describe the selection of a pharmacy, which indicates the average value of respondent's answers, which constitutes 68 % of all respondents. Standard deviation indicates the dispersion of answers. The larger is the standard deviation the more different were the respondents' answers. The smaller is the standard deviation the more uniform were the respondents' answers.

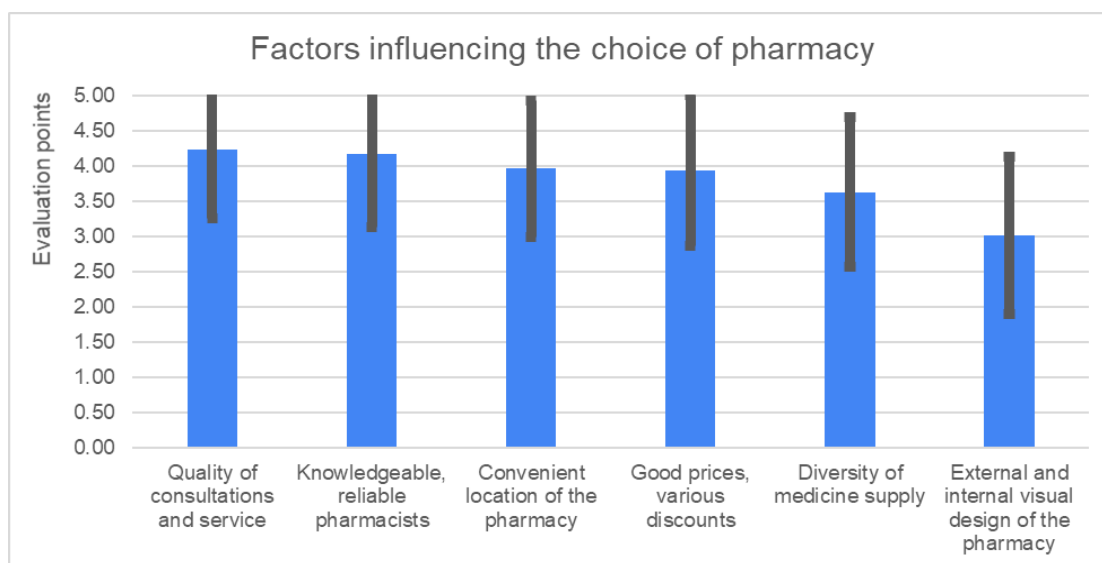


Figure 2 Factors that Influence the Selection of a Pharmacy

Factors that influence the patients' selection of a pharmacy are shown in the Figure 2. In the first place respondents have selected the quality of consultations and the service in a pharmacy (average value is 4.3 and standard deviation is 0.98). In the second place the respondents have selected the presence of knowledgeable and reliable pharmacists in a pharmacy (average value 4.17 and standard deviation 1.04). Importance of a convenient location of the pharmacy for the respondents is in the third place (average value 3.96 and standard deviation 0.97). Patients frequently select pharmacies that are located in outpatient hospitals or near them when buying prescription medicine. Pharmacies that are located near the patients' place of residence are also chosen. Many customers also visit those pharmacies that are located in the premises of shopping centres. In the fourth place of importance for the patients are good prices and various discounts. Here the average value is 3.94 and the standard deviation is 1.07. This standard deviation indicates that answers are more dispersed than in the previously examined cases, therefore the respondents' opinions were more varied. The choice variety of medicines is in the fifth place of importance for patients (average value 3.63 and standard deviation 1.06). Exterior and interior design of a pharmacy is in the sixth place (average value 3.02 and standard deviation 1.12). Such value of the standard deviation indicates the largest dispersion of answers. Consequently, there are customers to whom this factor is important, and there are many of those who regard the design of a pharmacy as unimportant. In comparison with a research carried out in Poland: the main criteria when selecting a pharmacy was location, then followed by professional care of high quality, price, and medicine discounts. However, for the customers in Great Britain more important was the quality of services, then followed by the location of the pharmacy. The following were named as essential factors: good advices from a pharmacist, a separate consultation room for in-depth health discussions. Pharmaceutical care of good quality facilitated the return of patients to the pharmacy. 30 % of customers in Poland return to one pharmacy, and 61 % of customers in Great Britain use the services of one pharmacy (Merks, Kaźmierczak, Olszewska, & Kołtowska-Häggström, 2014). Also, in another research in Poland the patient's selection of pharmacy was analysed, and as the most essential were named: location, price, wide offer of medicines, and service of good quality. For patients in Slovakia essential were also: location of a pharmacy, good previous experience, qualified and friendly professionals, convenient working hours, availability of additional services, for example, blood pressure and cholesterol level measurements, etc. (Mináriková, Malovecká, Lehocká, Snopková, & Foltán, 2016). In Latvia and also in Great Britain, Poland, and Slovakia the quality of consultations and service takes one of the first places.

Knowledge of pharmacy customers about pharmaceutical care and the main duties of a pharmacist

The knowledge of respondents about the meaning of pharmaceutical care was enquired within the research. Only 10 % of respondents indicated their knowledge as very good, 27 % indicated knowledge as good, 44 % indicated knowledge as average, 15 % indicated knowledge as poor, and 4 % indicated knowledge as very poor. This makes us conclude that only 37 % of respondents know what pharmaceutical care means, but the remaining respondents either know something or know nothing. Therefore, it is not yet obvious for the customers what a pharmacist should do when providing services to customers. The fact that 44 % of respondents indicate their knowledge as average shows that customers do not yet fully know what are the duties of a pharmacist and what information they should receive from a pharmacist. This indicates about the necessity to inform the society more about pharmaceutical care, purpose of the pharmacist, and his specific professional knowledge that should be provided to each visitor by a pharmacist working in pharmacies.

It can be observed in the image that the respondents point out “Informing the patient about medicines and dispensing of medicines” as the most important duty of a pharmacist (average value 4.42 and standard deviation 0.73). In this case most of the respondents notice the characterizing activities of their pharmacist. Respondents’ opinion that a duty of a pharmacist is “the sale of medicines” takes the second place, which indicates that the patients have mainly encountered this type of pharmacist’s activities (average value 3.87 and standard deviation 1.06). Respondents have noted “Consulting customers about treatment, illness, and health” as the third option (average value 3.56 and standard deviation 1.04). The patients have encountered a more comprehensive pharmacist’s consultation in this option.

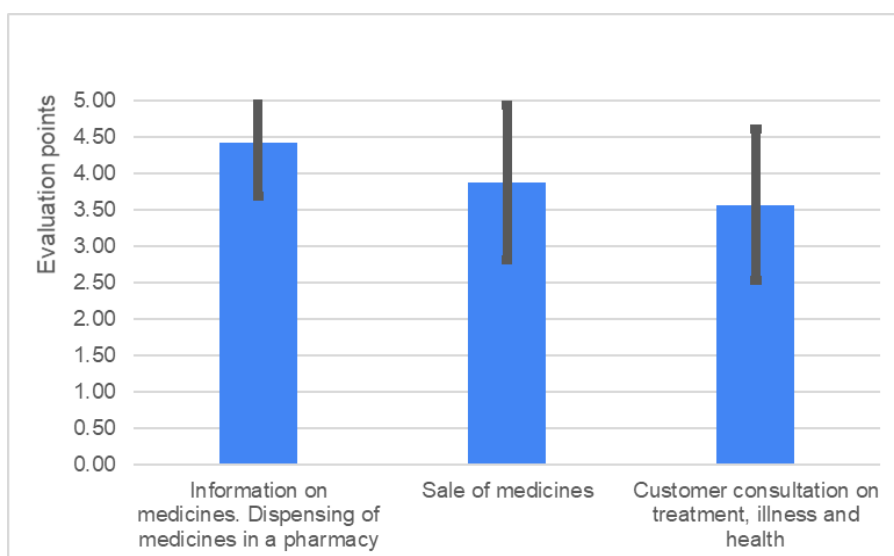


Figure 3 Main Duties of a Pharmacist According to the Patients’ Opinions

The research data indicates that most people don't clearly know what pharmaceutical care means. For most of the customers this is associated with the dispensing of medicines and explaining the using of medicines. Because when inspecting answers to questions regarding "Has the pharmacist asked additional question or has provided additional information?" part of the answers was "rarely" and "very rarely" or "never".

In Jordan 55 % of respondents didn't have knowledge about pharmaceutical care (Mukattash et al., 2018), whereas in Latvia only 19 % of respondents thought that their knowledge about pharmaceutical care was "poor" or "very poor", and knowledge as "average" was indicated by 43 %, and 37 % indicated that their knowledge about pharmaceutical care is "very good" and "good". Also in the research that was conducted in Great Britain as the main care duties of rural pharmacies were named the following: dispensing of medicines (86 %) and recurrent dispensing of medicines (73 %); approximately one fifth of respondents went to a pharmacy in order to treat small health disorders, infections, small injuries, gastric disorders, and in the case of allergies. More comprehensive services, for example, medicine use review services were provided very rarely. Youth was better informed about the essence of pharmaceutical care (Merks, Swieczkowski, & Jaguszewski, 2016).

By comparing these researches, it can be observed that people in Latvia understand this concept better, however it is necessary to continue the discourse about the essence of pharmaceutical care and what the customers should receive when visiting pharmacies.

Evaluation of the quality of a pharmacist's consultations

After analysing the respondent's satisfaction with the quality of pharmacist's consultations, it can be concluded that it is generally satisfactory because only 3 % of respondents selected answers "dissatisfied" or "more dissatisfied than satisfied". Of course, also the answer "average" (15 % from all of the answers) makes us think that the customer is not completely satisfied, which could indicate that the experiences from consultations provided by a pharmacist are varied. It is also possible that the criteria "quality of pharmacist's consultations" can be different for each customer.

As we can observe in the figure 4, the patients are mostly satisfied with the current quality of pharmacist's consultations (average value 4.27 and standard deviation 0.80). The dispersion of data is also small. When considering the time dedicated by a pharmacist for patients during a pharmacy visit, the respondents have evaluated the duration of their pharmacist's consultations with average value of 4.25 and standard deviation of 0.93. Therefore, the pharmacists mainly dedicate sufficient amount of time for their patients in order to provide the necessary information. When evaluating also "the time of individual attention given to a

customer” the respondents have evaluated it mainly as corresponding to the wishes of patients (average value 4.21 and standard deviation 0.92).



Figure 4 Evaluation of the Quality of a Pharmacist’s Consultations

Patients in the Slovakia pharmacy research were overall satisfied with the provided care. Highest evaluation was given to good communication from employees and the availability of consultations; and the worst evaluation was given to therapy management. Patients were not satisfied with the frequency of pharmacists’ enquiry regarding the effectiveness of medicines and if the medicines even work at all (for previously used medicines and illnesses) and also indicated the lack of privacy in the pharmacy (Mináriková, Malovecká, Lehocká, Snopková, & Foltán, 2016).

Patients in the research that was conducted in Poland were overall satisfied with the work of pharmacists; somewhat higher assessment was given to employees of independent pharmacies. It was observed that the patients were least satisfied with questions about the general state of health before the dispensing of medicines and with the information received about the use of medicines. Multiple respondents indicated that they would like to receive consultations in the pharmacy about health problems, healthy nutrition, possibilities to decrease addictions, and to receive additional services - measuring of blood pressure and cholesterol level. This could indicate that the patients have a desire to receive a more comprehensive pharmaceutical care than the one that is currently provided to them (Bratkowska, Religioni, Krysiński, & Merks, 2020).

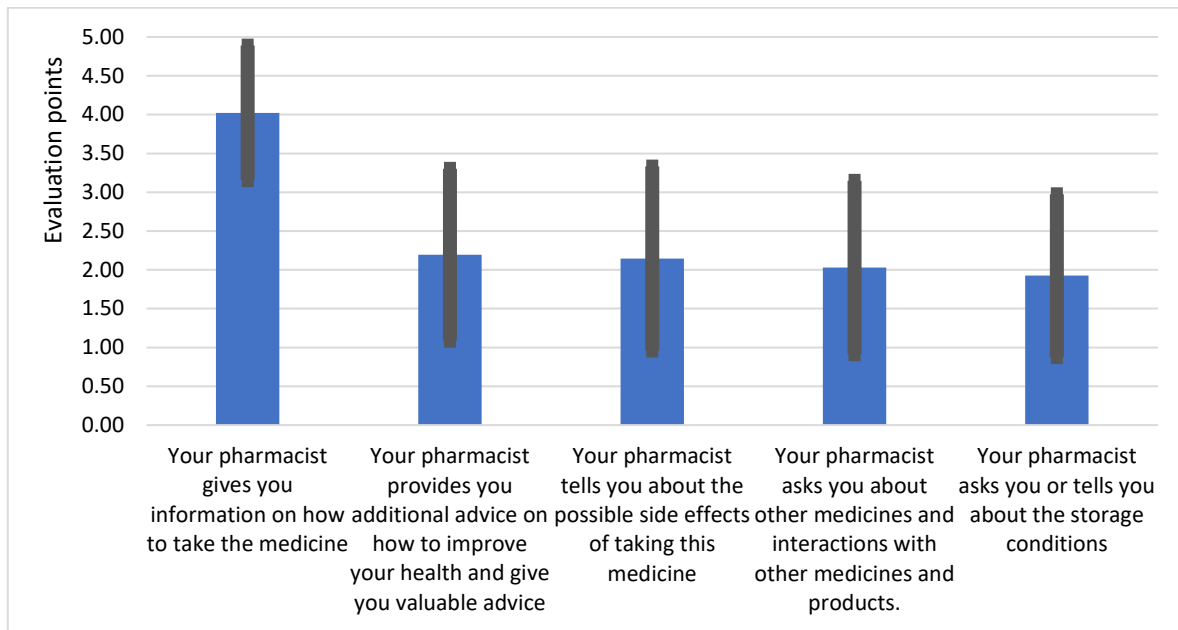


Figure 5 Contents of Consultations Provided by a Pharmacist

Contents of consultations provided by a pharmacist

Respondents answered the question “Does the pharmacist provides the patient with additional information on how to improve the state of health” with a much lower evaluation (average value 2.19 and standard deviation 1.11). This indicates that such information is provided less frequently, and a larger dispersion is observed in the provided answers. Then followed the question “Does the pharmacist inform about the possible adverse effects that can be anticipated during the use of medicines?”. The respondents replied with answers the average value of which was 2.15 and the standard deviation was 1.18. This indicates that such information is provided in fewer cases and the dispersion in answers is even bigger. We can judge according to this that there are pharmacists that provide such information to patients, and there are also plenty of pharmacists that don’t provide such information. Respondents answered the question “Does the pharmacist ask the patient about the use of other medicines and tells about interaction with other medication and food supplements?” with answers the average value of which was 2.03 and standard deviation was 1.12. This information is very important in cases when the pharmacist suggests over-the-counter drugs for preventing some symptoms. By gathering such information, a specialist can verify if the recommended product is compatible with the existing medication therapy of the patient. The pharmacist must ascertain that the patient properly stores medicines at home. This can affect the further efficiency of medicines. The respondents’ evaluation of this question was also low. Average value was 1.93 and standard deviation was 1.05. Question regarding “Do the patients visit large pharmacy

companies or small individual pharmacies” was not examined in the research that was conducted in Latvia, however the large dispersion of questions can be understood by observing the comparison of research results with other researches, because the quality and contents of patient consultations differs in various pharmacies also in our country.

Chain pharmacies and independent pharmacies were compared in the research, and it was observed that individual pharmacies provide better consultations (according to content). However, it was concluded that information about illnesses, concomitant diseases, and other medicines used is rarely asked in pharmacies before dispensing over-the-counter medicines, and also the side effects are rarely reported (Bratkowska, Religioni, Krysiński, & Merks, 2020).

Role of a pharmacist in the provision of healthcare

Thoughts of patients regarding the role of a pharmacist in the provision of healthcare were also enquired. The respondents answered the question “Does the pharmacist have a large role in this or not so large” with answers the average value of which was 4.18 and the standard deviation was 0.81. Conversely there were many respondents that valued the pharmacist’s kind and attentive attitude to them and the pharmacists’ interest in helping the patients. Here the average value was 3.99 and the standard deviation was 0.85. Psychosocial aspects are important than medication information for some pharmacy costumers (Patrícia Antunes, Gomes, & Cavaco, 2015). Holistic approach and medicine information received from pharmacists, as well as their empathic attitude improved medication adherence and patient satisfaction with medical care (Bourdin et al., 2020). This indicates that the patients evaluate pharmacists relatively high as healthcare professionals.

Patient’s satisfaction with services provided by the pharmacist

In conclusion the patients from Latvia were asked if they are overall satisfied with services provided by the pharmacist. Respondents’ answers to this question were evaluated with the average value of 3.99 and the standard deviation of 0.85.

When comparing the data about the respondents’ satisfaction with services provided by the pharmacist, it can be concluded that the percentage of respondents in Latvia that are satisfied and very satisfied is 84 %, but in Jordan the percentage of respondents that were satisfied with services provided by the pharmacist was 68 % of respondents (Mukattash et al. 2018). This indicates that most of the respondents in Latvia are satisfied with the way how pharmacists provide services. This lets us conclude that a pharmacist in Latvia provides the customer in accordance with what the customer anticipates to receive from the pharmacist; however, the quality of pharmacist’s consultations could be higher (when evaluating the average value). Review of pharmaceutical care studies notes that

overall patients are satisfied with care provided by pharmacy, especially with OCT medication and minor ailment consultations. On the other hand it identified some areas for improvement like chronic disease patient care, empathic and effective communication, patient centred care, providing more information on medication adherence promotion and healthy lifestyle (Melton & Lai, 2017). Considering the results of this research, the quality level of pharmacy consultations could be improved. Therefore, pharmacy curriculum revision is necessary, promoting patient centered care and developing practical skills needed to give patients high-level pharmaceutical care.

Conclusions

1. According to the summarized data it can be concluded that the knowledge of the population about the pharmaceutical care is insufficient.
2. Most of the customers associate pharmaceutical care with the dispensing of medicines, explaining the use of medicines, and providing services politely.
3. Pharmacists insufficiently communicate with patients and insufficiently inform them about interaction of medicines with other medication and foodstuffs, about side effects of medicines, and about storage of medicines; and they provide little valuable advice regarding how to improve the state of health.
4. The quality of pharmaceutical care takes one of the first places of importance when comparing different researches from all of the inspected countries.

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INFLUENCE OF INCLUSIVE AND SEGREGATIVE PHYSICAL EDUCATION FOR SCHOOLCHILDREN OF DIFFERENT MEDICAL GROUPS

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Abstract. *The study aimed to compare the effectiveness of inclusive and segregative physical education classes for students of various medical groups, taking into account sociopsychological indicators and indicators of psychoemotional state. The study involved 1,414 schoolchildren aged 10–16 years ($M=12.7$, $SD=1.6$). Through the survey, pupils' wellbeing, needs, motivations, and motor preferences at their leisure and physical education classes, level of situational and personal anxiety, degree of integration of the group, and motivation for success were ascertained. Data comparisons were made between schoolchildren who studied in segregated and inclusive ways of organizing physical education in schools. Attitudes towards schoolchildren's physical education and leisure patterns make it possible to assert that an inclusive model is effective. Integrative physical education classes are less mentally traumatic, more convenient, and psychologically comfortable than segregative ones. The way physical education is organized does not affect the level of anxiety and the class's degree of motivation in achieving success in schoolchildren's activities. Positive changes in the integrative conditions in the mental state come with all schoolchildren, but they are most noticeable among schoolchildren with low functional reserve capabilities.*

Keywords: *inclusion, mental state, physical education, schoolchildren.*

Introduction

Inclusive education is slowly being introduced in secondary schools in Ukraine. Its concept has noble slogans and objectives (Wilhelmsen & Sørensen, 2017; Wang, 2019). However, the individualized curricula of children who require inclusive education do not provide for physical education classes. Today, it is commonly known about the many positive effects of optimal physical activity

levels for persons of all ages, genders, and, in particular, health (Uher & Bukova, 2018; Rogowska et al., 2020). It is possible to assume that specialists' methodological work and the experience of organizing lessons in special educational institutions are not easily introduced into the practice of inclusive physical education of children with special educational needs in secondary schools (Bodnar & Prystupa, 2014).

Under the Salamanca Statement, orphans, children of migrants or displaced people, HIV-positive persons, pregnant adolescents, members of religious, ethnic, linguistic, etc. minorities also have special educational needs. Schoolchildren talented in the hard or soft sciences, who are creatively or artistically gifted, or who are athletically gifted, also require a differentiated approach in their studies. However, these categories of children rarely receive attention; inclusive education excludes them from its field of competence without considering the high social importance of the development of gifted persons. Given this, certain clarifications and distinctions are essential, as is the case for inclusive education in a narrow and broad sense (Qi & Ha, 2012; Lleixà & Nieva, 2020). The modern well-established public form of inclusive education (as education of children with special physical and psychological/developmental needs or detected disorders of health condition or various functional reserve capabilities) would be consistent with a narrow understanding of this phenomenon. Inclusive education, in its broader sense, should include differentiation of educational services (Hodge et al., 2009), taking into account the full range of characteristics of children, as called for in the Salamanca Declaration. This updated understanding of the concept of inclusive education makes it clear that the division of schoolchildren into medical groups and the differentiation of a load of physical education classes, taking into account the child's functional reserve capacity, also apply to this concept. Inclusive education has the potential to replace the long-standing system of conditional division into medical groups, which is typical of the Ukrainian system of physical education in schools.

In Ukraine, the main criterion for dividing schoolchildren into medical groups is based on the Ruffier's test results: schoolchildren with high and above-average levels of functional reserve capacities of the cardiovascular system are directed to the main medical group, with an average level – to the preparatory medical group, schoolchildren with low and below-average levels – to the special medical group (Bodnar, 2013). Schoolchildren with specific minor health problems are also included in the special medical group. According to the normative documents, pupils of the main medical group study one physical education curriculum together with pupils of the preparatory medical group. The special medical group takes part in the preparatory and final part of the physical education class. During the main part of the lesson, they do only those exercises that are not contraindicated to their health; this group of pupils will learn more

about the curriculum's content in additional physical education classes. Unfortunately, nowadays, due to a lack of resources, only some Ukrainian schools have followed these recommendations, and most schools have segregated classes with children of different medical groups, which provide for differentiation of physical load depending on the level of their functional reserve capacities. Thus, in Ukraine, there are two models of the organization of physical education – inclusive and segregated – which operate simultaneously.

The special literature provides only some data on the effectiveness of segregated or inclusive physical education. It has been proved that inclusive physical education is effective in terms of physical activity levels of low, medium, and high intensity (Pavlova, 2015; Pavlova, et al., 2016). However, the analysis of physical fitness indices does not determine one of these models' preferences. Quite ambiguous conclusions regarding the advantages of this or that model were obtained considering gender, age, level of functional reserve capacities, and individual physical qualities of children (Bodnar & Prystupa, 2014). There is a lack of groundwork concerning the influence of the inclusive model of physical education on the psychological performance of schoolchildren.

The study aimed to compare the effectiveness of inclusive and segregated physical education classes for schoolchildren in different medical groups, taking into account socio-psychological and psychosocial indicators.

Methods

Study sample

The study involved 1 414 schoolchildren aged 10–16 ($M=12.7$, $SD=1.6$). Schoolchildren studied in grades 5–9 in 9 Ukrainian secondary schools and were sent for health reasons to medical groups. All subjects and their parents gave their informed consent for inclusion before they participated in the study. The study was conducted following the Declaration of Helsinki, and the protocol was approved by the Bioethics Committee of Lviv State University of Physical Culture.

Research tools

A survey of schoolchildren was conducted to ascertain their wellbeing, needs, motives, and motor preferences at leisure and physical education classes. The level of situational and personal anxiety was determined by Spielberg's method (Spielberger, et al., 1983); respondent's wellbeing and activity – according to the “Wellbeing – Activity – Mood” test (Kokun, et al., 2011), the degree of group integration – according to the index of cohesion of K. Seashore (Axverdova, Gjulushanjan, & Kolenkina, 2006); motivation for success – by the method of V. A. Rozanova (Rozanova, 1999).

Organization of the study

Comparisons were made between schoolchildren in a segregated and inclusive school environment. Observations were taken at the beginning and the end of the school year. Obtained results in some cases were analysed taking into account the type of medical group (main, preparatory, special).

The experimental group (EG, n=694, 46.11% – females) was composed of schoolchildren who attended school under inclusive conditions. In these educational institutions, physical education classes for students of different health states were conducted simultaneously, that is, children with different levels of functional reserve capacities were engaged together, however, by differentiating/individualizing tasks. The needs and capacities of each child were considered as well. In the control group (CG, n=720, 48.05% – females), physical education for schoolchildren in main and preparatory medical groups was conducted separately from the special medical group (segregated – the class was held in different halls, at different times).

Statistical analysis

The IBM SPSS Statistics V. 23 was used for the statistical processing of data. The mean (M), and corrected standard deviation (SD) were determined. The Student's t-test was used to compare unrelated samples. The validity of the difference between the results of CG and the EG was determined by χ^2 -test. The differences were considered to be significant at least when $p \leq 0.05$.

Results

Needs, motives, and motor preferences at leisure.

Schoolchildren of the EG are more likely to help parents (by 12.8%, $p < 0.01$), spend more time walking (by 10.9%, $p < 0.01$) than those in the CG. This group (EG) also spent 11.1% more time ($p < 0.01$) on computer entertainment and social networking; visited exhibitions, museums, theatres, etc., more frequently (by 8.5%, $p < 0.01$). On the other hand, schoolchildren of the CG more often attended sports competitions as spectators and participated directly in hiking (by 4.1% $p > 0.05$; 1.4%, $p > 0.05$, respectively).

Schoolchildren of the CG who were assigned to the main medical group (by 7.8%, $p = 0.05$) and the special medical group (by 31.8%, $p = 0.07$) of the CG more often in comparison with students of the EG devoted time to reading the curriculum and fiction. In contrast, the EG students preferred searching data on the Internet. The difference between the number of active computer users among the EG and the CG students was also close to the statistically significant value ($p = 0.07$), so we can assume that the EG students found the information necessary for learning on the Internet.

The analysis of the favourite physical activity at leisure showed that students of the CG like (by 15.5%, $p < 0.001$) to participate in sports games less. Schoolchildren of the CG (in particular a special medical group) more often (by 45.5%, $p < 0.05$) chose physical activities such as billiards, bowling, and various kinds of fitness at their leisure time. Schoolchildren of the CG (special medical group) were 26.1% more likely ($p = 0.05$) to exercise on simulators.

Needs, motivation, and motor preferences of schoolchildren at physical education classes.

Schoolchildren of the CG were less likely (by 18.0%, $p < 0.001$) to feel positive emotions, vivacity, and improved mood in physical education classes. There were differences in performance of students in the main medical group, including the fact that more students of the EG considered PE classes as an opportunity to rest after mental loads (13.7%, $p < 0.05$) and to socialize (by 7.6%, $p < 0.05$).

In addition to the desire to improve health (the relative number of schoolchildren in the EG – 62.7%, and the CG – 49.9%) and increase the level of physical fitness (28.9% of the EG and 38.4% of the CG), among the factors that motivate participation in the PE classes was a desire to have a good time, have fun, get positive emotions (40.6% of the EG students and 44.2% of the CG students), rest after mental work (48.7% of the EG students, and 45.3% of the CG students), and improve wellbeing (42.1% of the EG students, and 32.2% of the CG students) (Table 1). In general, differences were found between the motivational priorities “improve health” and “improve wellbeing” of the EG and the CG students. The EG students often ($p < 0.05$) noted that the PE classes’ attendance was important to them for this very reason.

Table 1 Motives That Encourage Students to Participate in Physical Education Classes

Motives	Relative number of persons, %			p
	EG	CG	differences between EG and CG	
Health improving	62.7	49.9	12.8	0.042
Opportunity to relax after intellectual loads	48.7	45.3	3.4	–
Communication	11.9	11.5	0.4	–
Opportunity to gain knowledge, learn something new	9.1	8.7	0.5	–
Improve the appearance	32.7	29.7	3	–
Improvement of mental working capacity	28.9	38.4	-9.5	–

Possibility to have fun	9.4	9.6	-0.1	–
Possibility to receive positive emotions self-realization	40.6	44.2	-3.6	–
Self-realization,	8.1	5.1	3	–
Improve wellbeing	42.1	32.2	9.9	0.035

The analysis of the survey results did not reveal significant differences in the reasons why schoolchildren did not like the PE classes. The main reason given by students in both groups was that they were not interested in exercising during classes.

The CG students skipped PE classes more often (by 9.2%, $p < 0.05$) than the EG students. A doctor's medical certificate was the most common reason for missing PE classes among the EG schoolchildren (48.0%). In comparison, the CG students could skip PE classes due to deteriorating health (46.0%), muscle or abdominal pain (30.0%), although they did not have any certificate from a medical specialist.

Schoolchildren in the EG were more likely to complain of their health; among the most common were complaints of pain in the joints, spine during prolonged standing or sitting (7.0%, $p < 0.05$) and eye discomfort, either during or after classes, or decreased visual acuity (5.8%, $p < 0.05$).

Characterization of psycho-emotional state

The number of persons with high levels of personal anxiety was higher in the CG ($p < 0.05$). In the EG schoolchildren, the personal anxiety level was moderate, while it was high in the CG. High indices on the sub-scales “Wellbeing” and “Mood” were more often observed in the EG students (three times more often in the preparatory medical group) and on the scale “Activity” (twice more often in the special medical group) (Table 2).

Table 2 Indicators of Psycho-emotional State ($M \pm SD$) of Students of Different Medical Groups (1 – main, 2 – preparatory, 3 – special, 4 – generalized results)

Group		Indicators						
		Motivation for success	Anxiety		Well-being	Acti- vity	Mood	Index of cohesion
			situa- tional	personal				
1	EG	128.43± 23.40	30.33± 4.84	47.60± 14.94	5.51± 1.46	4.82± 1.42	5.71± 1.34	14.45± 2.66
	KG	149.25± 25.66	28.73± 5.98	46.77± 11.89	6.22± 0.95	5.27± 1.61	6.43± 0.51	12.96± 1.8
	p	0.001	0.142	0.447	0.206	0.125	0.159	0.377
2	EG	121.50± 26.66	26.75± 8.29	43.75± 10.18	5.53± 1.72	4.56± 1.74	5.87± 1.68	9.37± 1.53

	KG	120.86± 22.41	31.33± 3.50	45.67± 21.09	6.5± 0.5	5.87± 1.1	6.67± 0.23	9.19± 1.36
	p	0.135	0.991	0.631	0.005	0.237	0.003	0.911
3	EG	125.90± 25.11	29.42± 6.10	44.92± 14.39	5.51± 1.46	4.82± 1.42	5.71± 1.34	14.45± 2.66
	KG	145.75± 28.78	29.25± 7.67	46.73± 11.92	6.22± 0.95	5.27± 1.61	6.43± 0.51	12.96± 1.8
	p	0.607	0.649	0.249	0.018	0.473	0.004	0.627
4	EG	122.25 27.67	27.68 7.35	46.63 12.01	53.79 14.91	45.90 14.22	55.96 14.69	10.62 3.68
	EG	125.03 26.49	28.05 6.93	47.16 12.13	50.48 16.83	46.25 15.82	51.97 17.68	10.57 3.60
	p	0.347	0.645	0.702	0.025	0.697	0.008	0.868

The motivation for success among schoolchildren of various groups was hardly different. Only students of the main medical group who belonged to the EG were significantly more ($p < 0.001$) motivated for success. This suggests that inclusive learning environments effectively develop the motivation to achieve success only in schoolchildren with a high level of functional reserve capacities.

An analysis of the index values of the student's degree of integration showed no students who considered the class's cohesion to be low or below the average level.

Discussion

Before introducing PE into secondary schools for inclusive children, it is relevant to compare the effectiveness of inclusive and segregated PE classes and to weigh the risks and benefits of each form for the students of each of the three medical groups. In practice, inclusive physical education in the form of differentiated PE classes (with different medical groups, as well) has existed for a long time (Haycock & Smith, 2010; Bertills, Granlund, & Augustine, 2019). Because the division into medical groups, declared by regulatory documents, but not financially supported, "works" solely on paper (only those few schools that have resolved the issue of paying two teachers per each one PE class for children of different medical groups conduct separate lessons). Therefore, almost every PE teacher has already got some experience in selecting flexible teaching methods and organization of educational environment for students in the same class with substantial reserve capacities, which are particularly acute during the classes (Smith, 2004; Hodge et al., 2009; Rekaa, Hanisch, & Ytterhus, 2019). However, the introduction of physical education in secondary schools requires a comparison of the effectiveness of inclusive and segregated lessons for each of the three medical groups, particularly the analysis of risks and benefits.

Several social and psychological indicators are not affected by how the PE class is organized in secondary school. Along with this, there have been identified many differences in the social and psychological characteristics of students from different medical groups of the EG, which were formed under the influence of participation in inclusive classes. These features of attitude towards the PE and the structure of the recreational activities of integrated students make it possible to assert that this model is more effective since it helps to establish the prerequisites for the development of such essential qualities in students, as the ability to cooperate, responsibility, responsiveness, sociability, mobility of thought, etc.

Students in the EG spent more time on computer entertainment and social networking. To determine the reason for this difference in school behavior, further research should be undertaken with the aim to find out why students of the EG need more time to meet their needs in communication: whether inclusive classes increase this need, or vice a versa, do not contribute to the level of their satisfaction (Reiner, Niermann, Jekauc, & Woll, 2013). Schoolchildren who studied in a segregated environment perceived PE classes as uninteresting, monotonous, and joyless work on improving physical qualities, which is rarely effective.

Therefore, the promotion of physical education among schoolchildren with a high level of functional reserve capacities can be recommended with an emphasis on recreation and communication at PE classes. General PE classes (for the whole class) are more conducive to fulfilling children's need for communication during physical activity (Edmunds, Biggs, & Goldie, 2013; Fibbins, Ward, Watkins, Curtis, & Rosenbaum, 2018).

More schoolchildren in the CG missed classes due to illness and did not have a medical certificate. This indicates that students with disabilities are more likely to be ill in the separate PE classes, and health complaints may be related to a reluctance to study. A factor that causes a negative change in the mental condition of schoolchildren who have studied under the segregated model can be the fact of a break with friends or the unfavourable psychological atmosphere in the classroom, leading to frustration (Biddle & Asare, 2011).

The level of anxiety in the EG students was lower than in the CG students. This indicates that schoolchildren with disabilities and limited functional reserve capacities, despite studying in an inclusive model with children who had a higher level of physical fitness, did not perceive this situation as uncomfortable, threatening, or humiliating for their dignity.

Schoolchildren involved in the PE inclusive classes felt more comfortable, energetic, and initiative than children who were separated from their peers with a higher level of health and fitness. Therefore, it can be argued that an inclusive model of physical education in schools ensures a high level of psychological

comfort for children. The intensity and quality of the interaction of children with low mental and physical capacities with the social environment in an inclusive environment increase substantially (Biddle & Asare, 2011; Rekaa, Hanisch, & Ytterhus, 2019).

Positive changes in the integrative conditions in the mental state occur in all schoolchildren; however, they are most noticeable among schoolchildren with health problems and deviations in functional reserve capacities: such children perceive physical education classes favourably, they feel safe; therefore, they are calm, and at the same time more initiative and more active. Therefore, integrative physical education classes in schools are more effective than segregated ones, particularly for children from primary and special medical groups.

Conclusions

The obtained results do not allow to unambiguously interpret the effectiveness of integrative or segregative type of learning. Additional research is needed to assess which type of training provides a more positive impact in terms of various aspects of health (physical, mental, social, etc.). However, according to the results obtained, some facts can be stated. Inclusive education has several advantages over the long-standing segregated system of conditional separation into medical groups, which is a feature of the Ukrainian system of physical education in schools:

- an inclusive model of PE is more efficient in terms of needs, motives, and motor preferences of students at leisure and during physical education classes;
- despite the indicators of schoolchildren's psycho-emotional state, the integrated PE classes are more effective than segregated ones. The PE integrated classes are more psychologically comfortable and less traumatic than segregated ones to a greater extent for students with average and lower than average levels of functional reserve capacities.

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BACKSTROKE TEACHING METHODS IN HEALTHY CHILDREN WITH RESIDUAL PRIMITIVE REFLEXES

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Abstract. *There are studies suggesting that primitive reflexes can remain active in healthy children. Formal backstroke teaching is a part of many aquatic curriculum program. Even though the links with a problem during swimming learning with retained primitive reflexes were mentioned, there are no studies about effect of different backstroke teaching methods in healthy children with residual primitive reflexes. Aim of the study is to define the effect of teaching methods for backstroke in healthy children with residual primitive reflexes. Subjects: 6-7 years old healthy children with residual primitive reflexes. Methods: A part practice backstroke teaching method for the first group (12 children) has been focused on teaching of separate components (leg kicks, arm pulls, and breathing) before fitting them together, while another 12 participants in second group learnt backstroke separate components of arm-to-leg integration before combining them together inside of cycle. After 12 weeks of practice backstroke proficiency and heart rate during maximal continuous backstroke swimming were analyzed. The obtained results show significant differences between the two groups. The results of the second group are linked with better backstroke proficiency, significantly longer swimming distance and lower heart rate during swimming.*

Keywords: *backstroke teaching methods, primitive reflexes.*

Introduction

Formal swimming stroke is taught during swimming lessons with the expectation that it would provide individual water safety and will be useful during the whole lifetime (Revesz, Bognar, Salvara, Gita & Biro, 2007; Franklin et al., 2015). Formal backstroke requires high levels of intralimb and interlimb interaction, with the body rolling around the longitudinal axis, a horizontal body position and breathing skill (Maglischo, 2003; Riewald & Rodeo, 2015). In this context the ability to coordinate both sides of the body in the learning of backstroke movements play a crucial role. The bilateral interaction between the swimmers' moving limbs is characterized by common in-phase coordinative mode between the key events of arms and legs. Besides, this common form includes a diagonal interlimb pattern, where the limbs (e.g., arms and legs) on

opposite sides of the body move in unison (Maglischo, 2003; Martínez-Sobrino, Veiga, & Navandar, 2017).

Formal backstroke swimming, as a rational sequential chain of movements (Maglischo, 2003), could be considered as a skill with high motor task complexity and the part practice method should be used for this task (Fontana et al., 2009) in order to reduce cognitive load in the early stage of learning (Wulf & Shea, 2002; Magill & Anderson, 2016). Part practice mode for swimming stroke acquisition is traditionally focused on the teaching pattern of backstroke movements' separate components, broken down into sequential steps (leg kicks, arm movements and breathing). Each component is taught independently before fitting them all together to produce the whole common pattern of coordination at a later stage of practice (Blanksby, Parker, Bradley & Ong, 1995; Oh, Licari, Lay, & Blanksby, 2011). In this case, the instructor's implicit assumption is that sensorimotor adaptation will developed the ability to combine all backstroke movements into common pattern of limbs bilateral interaction through trial and error Maglischo, 2003; Invernizzi et al., 2006, Langendorfer, 2007). Sensorimotor adaptation means the integration of incoming extero- or intero-receptive sensory information into motor responses to produce a consistent movement (Gomez & Sirigu, 2015). One factor that may reduce children's ability to process sensory information effectively and decrease a cognitive load is the residual presence of primitive reflexes (Blythe, 2011; Pecuch et al., 2020). Primitive reflexes are involuntary movements in response to a specific stimulus (Sohn, Ahn & Lee, 2011). They are represented at birth in the full-term neonate, gradually get inhibited and should not remain active in the general population beyond one year of age (Schott & Rossor, 2003; Zafeiriou, 2004; Sharma, Ford, & Calvert, 2014). The studies suggest that primitive reflexes can remain active as residual reflexes in about 90% of healthy preschool and more than 50% of elementary school-age children (Gieysztor, Sadowska & Choińska, 2017; Gieysztor, Choińska, & Paprocka-Borowicz, 2018). The presence of residual primitive reflexes affects the bilateral upper-and lower-body integration, the muscle tone, balance and coordination (Blythe, 2011; Gieysztor, Choińska, & Paprocka-Borowicz, 2018). "Retained reflexes become impediments to or even prevent volitional moves or specific motor abilities" (Krzyszewska & Mikołajewska, 2018). Although the links to problems during swimming learning and retained primitive reflexes have been mentioned (Blythe, 2011; Bilbilaj, Gjipali, & Shkurti, 2017), there are no studies about the effect of different teaching methods of swimming strokes in healthy children with residual primitive reflexes (RPR). Therefore, it is important to seek strategies that prevent difficulties which children with RPR might encounter during swimming learning. Regarding to backstroke swimming learning, residual primitive reflexes could constraint the ability to acquire common pattern of coordination. In this context, the part practice strategy directly aimed on acquiring

the common form of key interaction of arms and legs could be more effective and preferable during backstroke swimming teaching in healthy children with RPR. The aim of the study is to define the effect of teaching methods for backstroke in healthy children with residual primitive reflexes.

Methodology

Participants and procedure

Quasi-experimental designs were used due to the fact that random selection of groups cannot be achieved. The two parallel groups were matched as closely as possible and were experimented on to compare the consistency of the outcomes (Walliman, 2011). The participants in this study were two groups with twelve subjects of 6 - 7-year-old healthy children with residual primitive reflexes. Before the start of the study, the children's parents signed the written informed consent form. All participants' health condition were defined by their General Practitioner as "practically healthy" and had no medical histories in terms of both neurodevelopmental disorders as well as cardiovascular disorders. In this age group there are no significant differences, both in cognitive development as well as motor abilities between genders (female and male) (Ardila et al., 2011; Polimac, Vukadinovic, & Obradovic, 2013). Additionally, there were no significant differences between the two groups of children ($p < 0.05$) in relation to age, body mass index, the degree of primitive reflexes integration and level of aquatic skill before the lessons. The present study has been focused on the three primitive reflexes due to their impact on coordination and balance (Blythe, 2009), which are crucial in swimming stroke acquisition. The testing of the primitive reflexes (asymmetrical tonic neck reflex, the symmetrical tonic neck reflex, and the tonic labyrinthine reflex) was done using Blythe's 5-point rating scale (0–4). The maximal total scores for primitive reflexes were the summation of the scores of each reflexes (24 points) and were represented as the degree of primitive reflex integration (Gieysztor, Choińska, & Paprocka-Borowicz, 2018). To participate in the present study all kids must have been able to perform certain aquatic skill components, but not proficient in backstroke. Competence was required in submerging (complete submersion on own without hesitation), blowing bubbles (blow bubbles with whole face in water), back float (stretched body), front float (stretched body), gliding (reasonably straight legs) (Blanksby et al., 1995).

The present study was carried out in a 25-meter long and variably deep swimming pool. The depth ranged from 1.80 m in the shallow part to 2.50 m in the deep, water temperature was 28–29 °C. The classes of two students per teacher were formed for 12 lessons, which they attended once a week for 30 minutes. The lessons were held at the same time of the day and day of the week, between 15:00 and 17:15 conditional on maintaining the sequence of the implementation of the program of various methods of teaching backstroke. During the study, children

had the opportunity to attend other days and times if they did not attend class at their usual time. Attendance at all lessons was required for results to be included.

The part practice teaching method for 12 participants in first group was aimed at the individual components of backstroke movements already applied by Oh et al., (2011) and widely recommended by swimming learning textbooks. The teaching of body position, legs movement, arms movement and breathing were broken down into sequential steps. Horizontal body position with breathing and flutter kick was practiced first before arms movements were each added. Then, the whole stroke was practiced by combining the arms, breathing, and kicking actions (Table 1).

Table 1 Focus of Attention on Teaching Pattern of Backstroke Movements (BM) in the First Group

Backstroke	Backstroke individual components
The body position	BM1. - horizontal alignment of the trunk in water; BM2. - tummy pushed up; BM3. - minimal body rotation;
Head position and breathing	BM4. - head remains horizontal in water, with eyes looking up to the top; BM5. - coordinated one complete breathing cycle to the rhythm of motion;
Use of upper limbs	BM6. - fingers are closed together; BM7. - slow, straight arm backstroke; BM8. - little finger leads and enters water first; BM9. - hand pull through and exits water at upper thigh level;
Use of lower limbs	BM10. - kick initiated at the hips; BM11. - knees extended with straight legs kicking action; BM12. - relaxed feet with ankles pointed down; BM13. - kicking feet just break surface;

The part practice strategy for 12 children in second group was aimed at the teaching of the common form of coordination broken down into sequential steps. Following the backstroke coordination model proposed by Maglischo (2003), we adapted key instants of the diagonal interaction between the arm movement and the leg kicking inside each cycle. Horizontal body position and interaction of one complete breathing cycle with six beat leg kicks was practiced first before separate components of bilateral interaction between arms and legs within the cycle were added. For example, an upkick of a leg accompanied by an ipsilateral arm clearing phase was practiced first in backstroke before another appropriate characteristics between arms and legs movements defining the common pattern of coordination were added. Then, the whole stroke was practiced by combining breathing and key instants of the backstroke cycle components (Table 2).

**Table 2 Focus of Attention on Teaching Backstroke
Common Pattern of Coordination (BC) in the Second Group**

Backstroke components	Backstroke individual components of the cycle
The body position	BM1. - horizontal alignment of the trunk in water; BM2. - tummy pushed up.
Head position and breathing	BM4. - head remains horizontal in water, with eyes looking up to the top; BM5. - coordinated one complete breathing cycle to the rhythm of motion.
A bilateral interaction between arms and legs with six-beat kick per cycle/ arm-to-leg diagonal interaction	BC14. - a upkick of the leg accompanies the contralateral arm recovery phase and the ipsilateral arm backward movement; BC15. - an upkick of the leg accompanies the contralateral arm backward movement; BC16. - an upkick of the leg accompanies the ipsilateral arm clearing phase.

For each swimming lesson, participants performed set of 25m practice trials (exercises). Verbal and visual feedback was specific to the needs of each individual to facilitate optimal learning. Before beginning each swimming exercise, each kid was provided with some initial instruction on how to perform a movement. First, she or he viewed a visual model of a correct swimming movement shown by the teacher followed by verbal instructions regarding correct movement technique. During each exercise, participants received one of two feedback statements respective to their attentional focus condition following every trial (see Table 2 and 3). Each statement depended on the basis of each participant’s performance from the preceding trials. Importance of adopting this attentional focus during performance of the next exercise was communicated to each participant. Both swimming buoyancy aids (belts) as well as stoke mastery aids like kickboards were used to assist with the learning progress. To increase the objectivity of the assessment, the instruction for children to perform each aquatic skill was given by the same experienced instructor in both groups. All instructions and feedback throughout the experiment were given by the teachers who had Master Degree in pedagogical education and appropriate academic qualifications for teaching swimming with 15 years of professional experience in teaching of swimming.

To analyze the effect of different teaching methods, backstroke skilled actions were evaluated at swimming lesson 4 and after 12 practice lessons. During testing, one trial was used for assessment skill consistency as well as efficiency (Muratori, Lamberg, Quinn, & Dufl, 2013). Participants received the visual and verbal cues as a reminder of the instructions once more and were asked to perform at their best ability. No buoyancy aids were used during the assessment.

Measures

To define the effect of different backstroke teaching methods, it is important to objectively evaluate how a child attained that skill. In present study, skilled actions were assessed by both their consistency as well as their efficiency (Muratori et al., 2013).

All children were evaluated for their consistency (Muratori et al., 2013) of backstroke proficiency (BP) using an observation checklist of 16 individual components mentioned in Tables 2 and 3. Each component was rated on a four point scale: 1=Not at all; 2=Sometimes; 3=Most of the time; 4=All the time. For both groups data was collected from the assessment of the maximal total score for both backstroke movement proficiency (BM) as well as for backstroke common pattern of coordination (BC). The maximal total score for BM was the summation of the scores of each stroke's individual component (BM1 to BM13) and the maximal total score for BC was the summation of the scores of cycle key instants (BC14 to BC16). The maximal total score for Backstroke Proficiency (BP) was the summation of the scores both BM as well as BC and were represented as a percentage of the possible maximal score (64 points).

The components of backstroke skilled movements' efficiency (Muratori et al., 2013) included the possibility to swim certain distance and the heart rate response during a task performance. All children were verbally encouraged to continue swimming until volitional exhaustion. The termination criterion of maximal distance of backstroke swimming is simply when the subject fails to execute exercise for the next 25 m. The 1 point was given for each covered 25 m distance. Common score correspondent to maximal continuously swimming amount of 25 m trials. Heart rate (HR) was assessed with a cardiac rhythm monitor adjusted around the child's chest.

Standard statistical methods for all variables were used for the calculation of means and standard deviations or percentages. The distribution of each variable was examined with the Kolmogorov–Smirnov normality test and after that a paired t-test for two independent means was used to assess the differences of variables between two groups. The t test for two dependent means was used to compare the differences of two sets of scores that are directly related to each other. The effect size was calculated with the Cohen's d (Cohen, 1988). Statistical significance for all the comparisons was set at $p < 0.05$. All data analysis was carried out using Microsoft Excel and SPSS spreadsheet applications.

Results

The participants of present study were two groups of healthy children with residual primitive reflexes (RPR). To ensure the subjects had enough rest, we measured the heart rate before the backstroke skilled action assessment. There

were no significant differences between the two groups of children ($p < 0.05$) in relation to heart rate before testing. Besides, the subjects were authorized to swim if they were within the normal range of heart rate rest values, i.e. between 80 and 105 beat per minutes (Fleming et al., 2011). At the beginning of the present study, no differences were found in backstroke between two groups. The participants were not performing backstroke individual components and their backstroke proficiency was zero in all components.

At the 4 weeks of the present study, no significant differences were found in the all backstroke skilled movements components between two groups ($p < .05$). The participants of both group acquired the certain level of backstroke mastery, nevertheless their backstroke proficiency in common pattern of coordination (BC) was zero (3.00 ± 0.00). The first group results in BM and BP was 28.65 ± 3.67 points and 31.75 ± 3.67 points subsequently, Dmax was 0.83 ± 0.39 points and HR response during testing was 163.3 ± 5.3 bpm. The second group demonstrated 29.42 ± 3.70 points in BM proficiency and 32.42 ± 3.70 points in BP proficiency, Dmax was 0.58 ± 0.51 and the HR of children reached 160.1 ± 7.7 bpm. The effect size (Cohen's d) of the differences in BM, BP, Dmax and HR was 0.21, 0.18, 0.55 and 0.48 subsequently.

Table 3 presents the results of assessment backstroke skilled movements components demonstrated by two groups after twelve weeks of teaching.

Table 3 Backstroke Skilled Movement Components (mean \pm SD) after Twelve Weeks of Teaching

Components	The first group (mean \pm SD)	The second group (mean \pm SD)	p - value	Cohen's d
BM	42.92 ± 4.12	40.5 ± 3.57	0.069	0.436
BC	3.58 ± 0.29	11.25 ± 1.36	$p < 0.05^*$	7.815
BP	46.5 ± 4.54	51.75 ± 4.58	$p < 0.05^*$	1.149
Dmax	7.92 ± 2.43	15.58 ± 3.00	$p < 0.05^*$	2.804
HR during test (bpm)	154.25 ± 5.05	126.92 ± 8.83	$p < 0.05^*$	3.799

Note. * = significantly different between measures; HR=heart rate; bpm = beat per minute; Dmax = maximal continuously swimming amount of 25 m trials; BM= Backstroke movements proficiency; BC= Backstroke common pattern of coordination proficiency; BP – Backstroke proficiency (the summation of the scores both BM as well as BC).

During twelve weeks of backstroke skill learning the first group showed significant progress in backstroke proficiency (BP) of 22% - from 31.75 ± 3.67 to 46.5 ± 4.54 points, which indicates 50% and 72% of the possible maximal score consequently ($p < .05$). After 12 weeks of teaching the group showed significant improvement both in BM acquisition from 28.65 ± 3.67 to 42.92 ± 4.12 points as well as Dmax from 0.83 ± 0.39 to 7.92 ± 2.43 points. The level of BC proficiency (3.58 ± 0.29) remained without significant changes and HR significantly decreased from 163.3 ± 5.3 bpm to 154.3 ± 5.1 bpm ($p < .05$). The second group backstroke proficiency became 30% higher, i.e. 32.42 ± 3.7 to 51.75 ± 4.58 points which made up for 51% and 81% of the possible maximal score consequently ($p < .05$). The group showed significant progress both in BM acquisition: from 29.42 ± 3.70 to 40.5 ± 3.5 points as well as BC proficiency: from 3.00 ± 0.00 to 11.25 ± 1.36 points ($p < .05$). Additionally, the results of Dmax significantly increased: from 0.58 ± 0.51 to 15.58 ± 3.00 and maximum heart rate during testing decreased from 160.1 ± 7.7 to 126.9 ± 8.8 bpm ($p < .05$). The improvement in backstroke proficiency in both groups can be grounded, as multiplied repetition of the same movements usually results in mastering those skills (Taubert et al., 2010; Landi, Baguear & Della-Maggiore, 2011). The examined groups in the present study were different from those in the available literature, but the study of Oh et al., (2008) also suggested significant change between the time periods for front crawl and backstroke teaching across 10 lessons \times 30 min/week in children with Developmental Coordination Disorder ($p < .05$).

The obtained results showed that the significant improvement of backstroke proficiency in first group accompanies only with progress in BM proficiency components (from 28.65 ± 3.67 to 42.92 ± 4.12 points) and does not show a child's ability to perform common pattern of coordination (from 3.00 ± 0.00 to 3.58 ± 0.29 points) after the teaching pattern of backstroke movements separate components. Besides this, there is no evidences how many lessons it takes to develop such skill without direct teaching. In contrast, children in second group demonstrated significant progress both in BM (from 29.42 ± 3.70 to 40.5 ± 3.5 points) as well as BC (from 3.00 ± 0.00 to 11.25 ± 1.36 points) components of proficiency. The results of the present study suggest that direct teaching arm-to-leg diagonal interaction provides the ability to acquire a common pattern of backstroke coordination in healthy children with RPR after 12 lessons of teaching. Post-teaching backstroke proficiency test defined that 9 participants, or 75% from second group, demonstrated the ability to perform the common form of arm-to-leg diagonal interaction pattern all the time and another 3 children, or 25% of participants, also showed an ability to combine arm-to-leg isolated movements into common pattern of coordination most of the time. In the first group, the teaching method of backstroke separate movement's components was used with the expectation that it would provide the ability to acquire common pattern of backstroke

coordination through trial and error. This part practice method is used by researchers and widely recommended in swimming textbooks. This approach based on the evidence, that humans have the persistent preservation of the neuronal connections between their upper limbs and lower limbs, also called interlimb reflex responses, that coordinate contralateral muscle activation patterns during locomotion (Zehr et al., 2016; Kerkman, Bekius, Boonstra, Daffertshofer, & Dominici, 2020). During swimming, crawling and walking the upper limbs and lower limbs preserve common pattern of coordination (Wannier, Bastiaanse, Colombo, & Dietz, 2001) which include a diagonal interlimb interaction where the limbs (e.g., arms and legs) on contralateral sides of the body move in unison (Adolph, Vereijken & Denny, 1998; Patrick, Noah, & Yang, 2009). Because the arm movement used in backstroke swimming is not pendular-like, it requires more active nervous system control compared to walking. However, even with increased neural control, the basic arm-to-leg pattern of coordination is preserved (Wannier et al., 2001). Unfortunately, studies on common pattern of coordination in children during learning of swimming strokes were not conducted by the academic community. There are also no studies about the direct teaching arm-to-leg interaction in healthy children with residual primitive reflexes. Nevertheless, Lerda, Cardelli, & Coudereau, (2005) examined backstroke organization in physical education students and concluded that only 52.8% of 36 students after 20 weeks (twice in a week) of training to swim demonstrated common pattern of coordination during backstroke swimming. Additionally, Bruijn et al., 2013, conducted a study on primitive reflexes in healthy adults. It was found that all ten subjects participated in the study had residual primitive reflexes (Bruijn et al., 2013). Therefore, present study provokes an assumption that interlimb reflex responses during swimming could be constrained by residual primitive reflexes. In this case, acquisition common pattern of backstroke coordination will be complicated.

It would be important to say that despite significant improvement in backstroke swimming, both groups, after twelve weeks of teaching, demonstrated differences between backstroke skilled actions components. The best results have been demonstrated by children with RPR taught by part practice method aimed at ability to perform common pattern of backstroke coordination. The better results of BP (51.75 ± 4.58 vs. 46.5 ± 4.54 ; Cochen's d: 1.15) were linked with BC (3.58 ± 0.29 vs. 11.25 ± 1.36 ; Cochen's d: 7.82), which is evidence of ability to perform the common pattern of backstroke coordination; Dmax (15.58 ± 3.00 vs. 7.92 ± 2.43); Cochen's d: 2.80), reflecting the ability to swim longer distances; and HR (126.92 ± 8.83 vs. 154.25 ± 5.05 ; Cochen's d: 3.8), correspondent to the lower level of intensity during backstroke swimming. There is no evidence about the effect of teaching methods and common pattern of backstroke coordination in healthy children with RPR, but the results of present study also could be echoed

by study of Wilson, Simpson, van Emmerik, & Hamill (2008). They stated that performance in triple jump athletes improved only after the appropriate characteristics defining the movement coordination patterns had been acquired. Refinement of these characteristics resulted in a more consistent and regulated movement. This ability brings flexibility to the motor system allowing it to cope with perturbations (Wilson et al., 2008). The quantitative evaluation of arm-to-leg coordination also confirm that front crawl swimming consists of an integral rational sequential system of movements with the bilateral interaction between arms and legs and the higher level technique corresponds with the ability to show values more closely to the in-phase mode of coordination during performing common patterns of coordination (Martínez-Sobrino et al., 2017). Another studies also identified that a loss of co-ordination, or range of motion within the kinetic chain can result in a sub-optimal performance (Roy, Moffet, & McFadyen, 2008; Myer et al., 2014).

Based on the analysis of present study, it was defined that for healthy children with residual primitive reflexes both the higher level of consistency as well as significantly better effectivity of backstroke skilled movement is provided by directed teaching of arm-to-leg diagonal interaction combined with breathing control. There is no direct evidence in the existing literature to suggest such statement, nevertheless, it is important to mention that, the main reference point for performing any voluntary movements on the ground (under gravity) is postural control. Postural control developed in the early stages of ontogenesis includes the ability to automatically (unconsciously) without the involvement of cognitive processing restore and maintain a stable vertical position when interacting with the environment during walking. Maintaining vertical balance is vitally important for developing children, because it provides a base on which to learn other skills (Hadders-Algra, 2005; 2018). The holding horizontal body (trunk) position in unusual physical environment during backstroke learning is the situation when the postural response is not necessarily helpful in the execution of a task. Moreover, postural control might complicate learning to swim (Geuze, 2003; Wann, Mon-Williams, & Rushton, 1998). The studies indicate that automated postural responses occur when balance is perturbed, irrespective of whether performers are instructed to recover or not to recover balance (Weerdesteyn, Laing, & Robinovitch, 2008). In this context, swimming stroke learning is the situation during which child performs two tasks simultaneously: 1. controls balance in horizontal body position in water and 2. executes complex motor task. Balance control is critical to the learning of complex motor skills and the execution of coordinated motor behaviors (Chen & Woollacott, 2007). Poor balance in the water will decrease the efficiency of limbs movements in an attempt to gain stability (Toussaint, Van den Berg, & Beek, 2002). The problem with the concept of duality is based on the assumption that the brain has limited

information-processing capacity, which is why a decrement in performance of one or both tasks can be observed (Mitra, Knight, & Munn, 2013; Huxhold, Li, Schmiedek, & Lindenbergh, 2006; Legrand et al., 2013). In addition, the existence of primitive reflexes also interferes with the children's ability to effectively integrate both sides of the body (Blythe, 2009, 2011), which is crucial in swimming stroke skill acquisition. In this context, part practice method aimed on teaching common pattern of backstroke coordination gives better results in children with RPR, because the ability to execute arm-to-leg diagonal interaction automatically provides the balance and stability (Patrick et al., 2009; Righetti, Nylén, Rosander, & Ijspeert, 2015), reducing cognitive load during backstroke learning.

Conclusions

The papers in the area of motor skill learning are usually linked with teaching of specialised sport skill movement which is based on fundamental movement, where both postural control, aimed on verticality, as well as automatic control of voluntary movement plays a crucial role. Due to different teaching environments, the results of such studies could not be applied as a recommendation for effective swimming learning. In this study, the use of healthy children with RPR during swimming stroke teaching is interesting because these questions are dropped out of researchers' focus of attention. The data of present study found that during backstroke learning part practice, teaching method aimed at common pattern of coordination benefits greatly in backstroke swimming proficiency improvement over part practice teaching method focused on pattern of movements in children with residual primitive reflexes. However, several limitations affect the interpretations of these results. First, due to absent the information about this theme in the available literature, the results and subsequent conclusions of this study are limited to the expert performer who participated in the study. The results should be replicated by other studies. Second, the data lacks a control group for comparison. With a number of participants without primitive reflexes, it may be that different results would better evaluate the methods of swimming teaching impact on swimming skill acquisition by healthy children with residual primitive reflexes. Thirdly, is the small sample size the statistical power and consequently the significance of results are decreased. The effect size was used to better control and analysis of the differences obtained. Additionally, the number of participants during lessons has been reduced to two to provide more effective teaching. Other key factors that had an influence on the backstroke teaching-learning results in healthy children with residual primitive reflexes could be the acquisition of skilled action in shallow water. Thus, the results derived from this study should be interpreted cautiously and confirmed by further investigations.

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LATVIJAS IEDZĪVOTĀJU ATTIEKSME PRET GRIPAS VAKCINĀCIJU COVID-19 PANDĒMIJAS LAIKĀ

Attitude towards Influenza Vaccine among the General Population of Latvia during the Covid-19 Pandemic

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Abstract. Annual influenza epidemics are associated with substantial morbidity and mortality, especially in elderly and in those with underlying diseases. During the global COVID-19 pandemic WHO and CDC have emphasized the importance of reducing risk of influenza virus spread and protecting high risk patient groups from complications caused by the influenza virus. Influenza vaccine may also reduce the burden on healthcare systems while we wait for a COVID-19 vaccine. Although the influenza vaccine has been around for a while, there are still many who question the efficiency, safety and usefulness of it. The article aims to study the attitude of the Latvian adult population towards influenza vaccine during the COVID-19 pandemic. *Materials and methods:* a quantitative, cross-sectional study based on an anonymous online survey consisting of 12 questions. *Data was analysed by using descriptive statistics and Pearson correlation. Results:* major part of the respondents do not support influenza vaccine, but almost a half support the vaccination or have changed their attitude towards it during the COVID-19 pandemic. *Data shows lack of knowledge about influenza infection, influenza vaccine and vaccine side effects, therefore further educational campaigns should be developed for the general population.*

Keywords: COVID-19, influenza, public health, vaccination.

Ievads

Introduction

Kopš 2020. gada marta, kad Pasaules veselības organizācija pasludināja globālo COVID-19 pandēmiju, ir strauji palielinājusies pasaules iedzīvotāju interese par vakcināciju un daudz biežāk tiek meklēta medicīniskā palīdzība ar gripai līdzīgiem simptomiem (Gorbalenya et al., 2020). Spānijā veiktajā pētījumā

apstiprinājās, ka pandēmijas laikā ir pieaudzis telefonkonsultāciju skaits, konsultējot pacientus ar gripai līdzīgiem simptomiem, kā arī palielinājies pieprasījums pēc gripas un pneimokoku vakcīnām, salīdzinot ar iepriekšējiem gadiem (Ramos et al., 2019).

Pasaules veselības organizācijas rekomendētā gripas vakcīnas aptvere ir 75%, taču Latvijā ir viens no zemākajiem aptveres rādītājiem Eiropas savienībā (zem 10%) (Rechel, Richardson, McKee, 2018).

Galvenie iemesli kāpēc cilvēki atsakās vakcinēties ir neuzticība vakcīnām, bailes no komplikācijām, slimības nopietnības neapzināšanās, apgrūtināta pieejamība vakcīnai (Schuster, Eskola, Duclos, 2015).

Latvijā, katru gadu pieprasījums pēc gripas vakcīnas nedaudz pieaug, bet joprojām gripas vakcinācijas aptvere vērtējama kā ļoti zema. Pēdējo trīs gadu laikā vakcinēto skaits: 2019. g. - 76944 pieaugušie un 6232 bērni (0-17 g.), 2018. g. - 47141 pieaugušie un 3372 bērni, 2017. g. - 40734 pieaugušie un 2424 bērni (SPKC, 2019).

Pētījuma mērķis - noskaidrot iedzīvotāju attieksmi pret vakcināciju un, vai pandēmija ir ietekmējusi izvēli saņemt gripas vakcīnu.

Pētījuma metodes - kvantitatīvs, šķēsgriezuma pētījums, kura pamatā ir anonīma tiešsaistes aptauja. Dati tika analizēti, izmantojot aprakstošo statistiku un Pīrsona korelāciju.

Literatūras apskats *Literature Review*

Gripas vīruss ir Orthomyxoviridae dzimtas RNS vīruss, kas spējīgs dalīties tikai dzīvās šūnās (Yamauchi, 2020).

Vīrusam izdala četrus tipus: A, B, C un D tipu. A un B tipa vīrusi ierosina klīniski smagas saslimšanas formas, turpretī C tipa vīruss ierosina vieglas, pašlimitējošas respiratorā trakta infekcijas. Lielāko daļu gripas epidēmiju saista ar A tipu. D tipa gripas vīrusi galvenokārt skar liellopus un līdz šim nav zināmi gadījumi, kad tie radītu slimības cilvēkiem (Pormohammad et al., 2021).

A tipa gripas vīruss tiek klasificēts atkarībā no diviem vīrusa virsmas antigēniem – hemaglutinīna un neiraminidāzes. Šobrīd ir zināmi 18 hemaglutinīna (H1 – H18) un 11 neiraminidāzes (N1 – N11) apakštipi (Pormohammad et al., 2021). Gripas vīruss galvenokārt izraisa drudzi, klepu, aizliktu degunu, kakla, muskuļu un galvas sāpes, kā arī nogurumu un nespēku. Bērniem, izteiktāk kā pieaugušajiem, novēro arī vemšanu un caureju (CDC, 2020).

Veseliem indivīdiem saslimšana, lielākoties, norit vieglā formā, bez komplikācijām, pacienti atlabst 7-10 dienu laikā, taču atsevišķos gadījumos slimība norit smagi, attīstās komplikācijas, kas dažkārt ir nāvējošas. Lielākam komplikāciju riskam pakļauti ir cilvēki, kas vecāki par 65 gadiem, visu vecumu

pacienti ar hroniskām saslimšanām, grūtnieces un zīdaiņi (Barker, 1986). Saslimšana ar gripas vīrusu un tā komplikācijām, kā arī no tā izrietošās sekas, ir liels slogs gan veselības un sociālajām sistēmām, gan ekonomikai visā pasaulē (Kassianos et al., 2016).

2018.-2019. gadā, gripas epidēmijas sezonā, Latvijā tikai hospitalizēti 2406 pacienti ar gripu vai gripas izraisītām komplikācijām. Šajā pašā periodā saņemti ziņojumi par 86 nāves gadījumiem saistībā ar gripas vīrusa infekciju (SPKC, 2019). Gripas vīrusa izplatība lielākoties ir sezonāla un tipiski ilgst no septembra beigām līdz maija sākumam, izteiktu vīrusa aktivitāti sasniedzot decembra, janvāra un februāra mēnešos (Zavadzka et al., 2015).

Ikgadēja vakcinācija pret gripu ir efektīvākais līdzeklis gripas profilaksei, kas tiek rekomendēta cilvēkiem sākot no sešu mēnešu vecuma. Tā samazina laboratoriski apstiprinātus gripas vīrusa gadījumus, kā arī samazina gripas vīrusa izraisītas komplikācijas un mirstību (The Medical Letter, 2020).

Tomēr gripas vīrusi ir nestabili, tie viegli veido jaunas mutācijas, ko atkarībā no lieluma sauc par antigēnu driftu, vai šiftu. Antigēnās struktūras mainības dēļ nav iespējams izstrādāt vakcīnu, kas pasargātu no saslimšanas ilgstoši. Vakcīnas efektivitāte katru gadu tiek vērtēta kā 25-60% (CDC, 2020). Gripas vakcīnas ir drošas lietošanai gan bērnu, gan pieaugušo un senioru populācijās, ko atbalsta neskaitāmi pētījumi, kā arī pašas par sevi neizraisa saslimšanu ar gripas vīrusu (CDC, 2020).

COVID-19 ir vīrusa infekcija, ko izraisa 2019. gada decembrī atklātais koronavīrusa grupas vīruss SARS-CoV-2. 2020. gada 11. martā Pasauls Veselības Organizācija šīs slimības uzliesmojumu pasludināja par pandēmiju.

Saslimšana ar vīrusu izraisa galvenokārt tādas sūdzības kā drudzis, sauss klepus, galvassāpes, caureja un nogurums. Slimība vidēji 80% cilvēku norit vieglā formā, bet aptuveni 15% saslimušo rodas smagas komplikācijas un 5% nepieciešama intensīvā terapija. Biežāk komplikācijas un smaga slimības gaita rodas cilvēkiem pēc 60 gadu vecuma, kā arī visa vecuma cilvēkiem ar jau esošām hroniskām saslimšanām (David et al., 2020).

COVID-19 pamata reprodukcijas indekss ir ievērojami lielāks kā gripas vīrusam, līdz ar to COVID-19 inficēta persona var inficēt lielāku skaitu citu cilvēku (Pormohammad et al., 2021). Infekcija, ko izraisījis viens patogēns, neizslēdz iespēju inficēties ar vēl kādu vai vairākiem patogēniem, līdz ar to COVID-19 pandēmijas laikā, pastāv iespēja vienlaicīgi inficēties ar vairākiem vīrusiem, kā dēļ tiek īpaši uzsvērtā riska grupu vakcinācija pret gripu (Greech, Borg, 2020).

Metodoloģija Methodology

Tika veikts kvantitatīvs pētījums, kurā piedalījās 531 respondents. Iekļaušanas kritērijs - personas, kas sasniegušas 18 gadu vecumu. Tika sastādīta tiešsaistes anketa, kas sastāv no 12 jautājumiem ar vairākiem atbilžu variantiem. Datu apstrādei izmantota aprakstošā statistika un Pīrsona korelācijas analīze. Pētījums tika veikts laikā no 2020. gada oktobra līdz 2020. gada novembrim.

Pētījuma rezultāti Results

Pētījumā piedalījās 531 respondents, no tiem 78,6% sievietes un 23,2% vīrieši. Rīgā un Pierīgā dzīvo 54,8% no aptaujātajiem, 21,7% dzīvo mazpilsētā, 9,6% ir lauku māju/saimniecību iedzīvotāji, bet 13,9% aptaujāto respondentu dzīvo, kādā citā lielākajā Latvijas pilsētā.

Augstākā izglītība ir 68,4% respondentu, 29,2% respondentu ieguvuši vidējo vai vidējo profesionālo izglītību. Tikai 24,9% aptaujāto ir medicīnas darbinieki, 75,1% nestrādā darbu, kas saistīts ar medicīnas nozari.

Dzīves laikā ar gripu vieglā slimības formā ir slimojuši 51,2% respondentu, 31,3% aptaujāto dzīves laikā nav slimojuši ar gripu.

Lai noskaidrotu kā respondentu vakcinēšanās pret gripu pieredze ir saistīta ar plāniem vakcinēties pret COVID19, tika izmantota Pīrsona korelācijas analīzes metode. Korelācijas starp respondentu atbildēm uz jautājumiem par vakcinēšanos pret gripu un COVID19 rezultāti skatāmi 1., 2., 3. un 4. tabulā.

1.tabula. Respondentu atbilžu uz jautājumiem par vakcināciju pret gripu un COVID19 Pīrsona korelācijas analīzes rezultāti I
Table 1 Results of Pearson Correlation between Respondents Plans for COVID19 and Influenza Vaccine I

		Vai dzīves laikā esiet slimojis/-usi ar gripas vīrusa izraisītu saslimšanu?	Vai dzīves laikā esiet saņēmis/-usi gripas vakcīnu?	Vai esiet vakcinēts/-a pret citām infekciju slimībām?	Vai šogad plānojat vakcinēties pret gripu?
Ja šobrīd būtu pieejama vakcīna pret COVID-19 vīrusa izraisītu saslimšanu, vai Jūs vakcinētos?	Pearson r	,040	,328**	,241**	,388**
	Sig. (2-tailed)	,355	,000	,000	,000
	N	531	531	531	530

** Correlation is significant at the 0.01 level (2-tailed).

2.tabula. Respondentu atbilžu uz jautājumiem par vakcināciju pret gripu un COVID19
Pārsona korelācijas analīzes rezultāti II

Table 2 Results of Pearson Correlation between Respondents Plans for COVID19 and
Influenza Vaccine II

		Vai COVID-19 pandēmija ir ietekmējusi Jūsu izvēli par labu gripas vakcīnai?	Plānoju/ Jau esmu vakcinējies/- usies pret gripu	Pārāk maz informācijas par gripas vakcīnu	Neticu gripas vakcīnas efektivitātei	Gripas vakcīna nav obligātā vakcīna
Ja šobrīd būtu pieejama vakcīna pret COVID-19 vīrusa izraisītu saslimšanu, vai Jūs vakcinētos?	Pearson r	,402**	,383**	-,056	-,336**	-,126**
	Sig. (2- tailed)	,000	,000	,195	,000	,004
	N	529	529	531	528	531

** Correlation is significant at the 0.01 level (2-tailed).

Rezultāti 2. tabulā uzrāda vidēji ciešu pozitīvu korelāciju starp respondentu plāniem vakcinēties pret COVID19 un COVID19 ietekmi uz plāniem vakcinēties pret gripu ($r = ,402^{**}$, $p \leq 0,01$). Vidēji cieša pozitīva korelācija ir starp atbildēm par plānoto vakcināciju pret COVID19 un jau veikto vai plānoto vakcināciju pret gripu ($r = ,383^{**}$, $p \leq 0,01$). Vidēji cieša negatīva korelācija pastāv starp respondentu plāniem vakcinēties pret COVID19 un neuzticību gripas vakcīnas efektivitātei ($r = -,336^{**}$, $p \leq 0,01$), norādi uz gripas vakcīnas brīvprātīgo izvēli ($r = ,126^{**}$, $p \leq 0,01$).

Tas liecina, ka respondenti, kuri jau veic vakcināciju pret gripu, plāno vakcinēties arī pret COVID19. Savukārt vidēji cieša negatīva korelācija starp respondentu plāniem vakcinēties pret COVID19 un neticību gripas vakcīnas efektivitātei norāda, ka respondenti, kuri neuzticas gripas vakcīnai, neplāno vakcinēties pret COVID19.

Rezultāti 3. tabulā uzrāda vidēji ciešu negatīvu korelāciju starp respondentu plāniem vakcinēties pret COVID19 un bailēm no gripas vakcīnas blaknēm vai piedzīvotām gripas vakcīnas blakus parādībām ($r = -,170^{**}$, $p \leq 0,01$). Tas liecina, ka respondenti, kuri neuzticas gripas vakcīnai vai ir piedzīvojuši tās negatīvās blaknes, neplāno vakcinēties pret COVID19.

3. tabula. Respondentu atbilžu uz jautājumiem par vakcināciju pret gripu un COVID19
Pīrsona korelācijas analīzes rezultāti III

Table 3 Results of Pearson Correlation between Respondents Plans for COVID19 and Influenza Vaccine III

		Nekad neesmu slimojis/-usi ar gripu	Gripa nav nopietna saslimšana	Baidos no nevēlamām blakusparādībām/ Esmu saskāries/-usies ar nevēlamām vakcināciju blakusparādībām	Baidos no adatām
Ja šobrīd būtu pieejama vakcīna pret COVID-19 vīrusa izraisītu saslimšanu, vai Jūs vakcinētos?	Pearson r	-,004	-,047	-,170**	,042
	Sig. (2-tailed)	,923	,280	,000	,329
	N	531	531	530	531

** Correlation is significant at the 0.01 level (2-tailed).

4. tabula. Respondentu atbilžu uz jautājumiem par vakcināciju pret gripu un COVID19
Pīrsona korelācijas analīzes rezultāti IV

Table 4 Results of Pearson Correlation between Respondents Plans for COVID19 and Influenza Vaccine IV

		Vakcīna var izraisīt saslimšanu ar gripas vīrusu	Gripas vakcīna ir pārāk dārga	Neatbalstu vakcināciju	Citi iemesli
Ja šobrīd būtu pieejama vakcīna pret COVID-19 vīrusa izraisītu saslimšanu, vai Jūs vakcinētos?	Pearson r	-,179**	-,001	-,353**	,028
	Sig. (2-tailed)	,000	,975	,000	,514
	N	531	530	531	530

** Correlation is significant at the 0.01 level (2-tailed).

Rezultāti 4. tabulā uzrāda vidēji ciešu negatīvu korelāciju starp respondentu plāniem vakcinēties pret COVID19 un viedokli, ka gripas vakcīna var izraisīt

saslimšanu ar gripu ($r = -,179^{**}$, $p \leq 0,01$) un kopējo nostāju pret vakcināciju pret gripu ($r = -,353^{**}$, $p \leq 0,01$). Tas liecina, ka respondenti, kuri neuzticas gripas vakcīnai vai vispār neatbalsta vakcināciju, neplāno vakcinēties pret COVID19.

Korelācija starp respondentu plāniem vakcinēties pret COVID19 un viņu vecumu, izglītības līmeni, dzīves vietu, profesijas saistību ar medicīnu, netika konstatēta.

Secinājumi **Conclusion**

Analizējot iegūtos datus, tika secināts:

1. Respondenti, kuri jau veic vakcināciju pret citām slimībām, plāno vakcinēties arī pret COVID19;
2. Respondenti, kuri jau veic vakcināciju pret gripu, plāno vakcinēties arī pret COVID19.
3. Respondenti, kuri neuzticas gripas vakcīnai vai ir piedzīvojuši tās negatīvās blaknes, neplāno vakcinēties pret COVID19.
4. Respondenti, kuri neuzticas gripas vakcīnai vai vispār neatbalsta vakcināciju, neplāno vakcinēties pret COVID19.

Lielākā daļa aptaujāto respondentu neatbalsta vakcināciju pret gripu. Izvērtējot aptaujāto respondentu atbildes, var secināt, ka sabiedrībai trūkst zināšanu par vakcinācijas nepieciešamību, par iespējamajām blakusparādībām un vakcīnu drošību.

Summary

Annual influenza epidemics are associated with substantial morbidity and mortality, especially in elderly and in those with underlying diseases. During the global COVID-19 pandemic WHO and CDC have emphasized the importance of reducing risk of influenza virus spread and protecting high risk patient groups from complications caused by the influenza virus. Influenza vaccine may also reduce the burden on healthcare systems while we wait for a COVID-19 vaccine. Although the influenza vaccine has been around for a while, there are still many who question the efficiency, safety and usefulness of it. The article aims to study the attitude of the Latvian adult population towards influenza vaccine during the COVID-19 pandemic.

Materials and methods: a quantitative, cross-sectional study based on an anonymous online survey consisting of 12 questions. Data was analysed by using t-test and Pearson correlation.

Results: from the 522 respondents, 51.9% were 26 to 35 years old, more than a half of them (55%) live in Riga and its surroundings, 68.4% have higher education. 53.4% have had an influenza virus infection during their lifetime, 50.4% have never received an influenza vaccine. 36% have already received or are planning to receive a vaccine against influenza this season, 64% do not plan to vaccinate. 13.4% of the respondents decided to get the influenza

vaccine, due to COVID-19. Main reasons for not wanting to be vaccinated are lack of trust in the effectiveness of the vaccine, fear of vaccine side effects and the fact that the influenza vaccine is optional.

At the end of the study, we came to several conclusions:

1. Respondents who are already vaccinated against other diseases also plan to be vaccinated against COVID19
2. Respondents who are already vaccinated against influenza also plan to be vaccinated against COVID19.
3. Respondents who do not trust the flu vaccine or who have experienced its negative side effects do not plan to be vaccinated against COVID19.
4. Respondents who do not trust the influenza vaccine or do not support vaccination at all do not plan to be vaccinated against COVID19.

Major part of the respondents do not support influenza vaccine, but almost a half support the vaccination or have changed their attitude towards it during the COVID-19 pandemic. Data shows lack of knowledge about influenza infection, influenza vaccine and vaccine side effects, therefore further educational campaigns should be developed for the general population.

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EXPLORATION OF EURASIAN PRISON CHAPLAINS' PSYCHOLOGICAL WELL-BEING TO RAISE THEIR JOB SATISFACTION

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Abstract. *The article aims to attract the attention of policymakers, educators, business-affiliated bodies, and community to the psychological well-being of such prison staff members as chaplains whose job satisfaction will directly influence inmates' rehabilitation and the health of the society in general. A phenomenological research was carried out in a non-profit organization Good News Jail and Prison Ministry whose mission is to provide spiritually mature, equipped, and motivated chaplains serving in 22 states, one American territory and 25 countries. The research sample was the participants of six Eurasian regions. The data were collected using interviews, diary notes and reports of stakeholder and problem tree analysis. The literature review and the gained data reveal a clear profile of what and who prison chaplains should be to guide prisoners towards their integration into society. It exposes both sides of the same system, known as penitentiary, as well as indicates problem solution strategies as well as requirements to maintain the work in line with trends in the branch. The research has brought repeatedly proved evidence that the complicity of "state of the art" calls for more attention from policymakers, educators, business-affiliated bodies, and states clearly that more research is necessary.*

Keywords: *job satisfaction, prison chaplains, psychological well-being.*

Introduction

The fact that there is a strong correlation between chaplain's proficiency and inmates' rehabilitation has been studied for a significant period of time, supported in literature, analysed through a number of documents gained with different data collection methods, and confirmed in this research as well. While there are a number of other factors and people which affect inmates' life and thinking, there is no such an important profile within the whole prison staff as a chaplain whose professional qualifications and personal qualities make such a unique combination known as someone's psychological well-being.

The aim of the research was to study the psychological well-being of prison chaplains and explore their job satisfaction as well as ability to influence inmates'

rehabilitation in the context of organizational change through educational efforts. A phenomenological research was chosen to study six participants (chaplains) in Eurasian regions: Latvia, Lithuania, Russia/ Krasnoyarsk, Russia/ Tyumen, Ukraine, and Kyrgyzstan. The following data collection methods: interviews, diary notes, and reports of stakeholder and problem tree analysis were applied.

The literature review outlined a clear portrait of a prison chaplain, traditionally presented and studied in a number of European countries as well USA, whose both professional duties and personal ambitions are committed to prisoners' integration into society, exposed both sides of the same system, known as penitentiary as well as indicated problem solution strategies as well as requirements to maintain the work quality in line with trends in the branch. The research focused on a non-profit organization Eurasian Good News Jail and Prison Ministry (GN) prison chaplains and repeatedly proved evidence that the complicity of "state of the art" called for more attention from policymakers, educators, community and stated clearly that follow-up research was needed.

Research Review on Chaplains' Psychological Well-being Aspects

Since prison chaplaincy appeared it has been followed, influenced, and studied by society around. Despite the research done on prison chaplaincy as such, the psychological well-being of chaplains that could further influence prisoner rehabilitation is a little-researched phenomenon. The review of the research performed on the issues of chaplaincy has been carried out based on the so-called six-factor model of psychological well-being, introduced by C. Ryff which focuses on *self-acceptance*, *personal growth*, *purpose in life*, *positive relations*, *autonomy*, *environmental mastery* (Ryff, 1995).

The indicators of *self-acceptance* are the state of being proud of oneself and perceiving one's good and bad personality aspects and life events in a positive way. *Personal growth* is characterized by the person's openness to new experience, the realization of one's potential and improvement of behaviour during lifetime. Concerning the *purpose in life*, the respondents might express determination, clear understanding of one's goal in life, a sense of direction and confidence in life. *Positive relations with others* will be evident as interest in and concern to maintain positive relationships with others, even in the cases of contradictory opinions. The ability to affect the world around and competence to effectively manage and use the environment, the flow of information is characteristic to *environmental mastery*. Finally, *autonomy* is revealed in human judgments and independence, in the ability to resist public pressure and the ability to regulate their own behaviour, as well as the ability to think and act in the selected direction (Mikelsone & Odina, 2016).

Self-acceptance. While L. Lloyd-Rees (1971, p. 9) in D. Scott (2013) provides a clear and definitive statement on what a prison chaplain is about, describing him as a “prophet, priest and pastor” (Scott, 2013, p. 49), challenged to fit into secular culture with its strife “for excellency and accountability” according A. Aldridge (2006), “open and flexible... spiritual drivers and enablers” (Paterson, 2015, p. 4), people with their calling for life E. Pumpura (2017), A. Todd reveals the greatest antagonism and tragedy and shows the opposite side of chaplaincy with its non-prison, independent and neutral status, not seen as a “part of either prison management or the regime” (Todd, 2013, p. 146). “The chaplain’s contribution to the history of the prison is probably one of the most important yet underrated of all the members of the prison staff (Scott, 2013, p. 27). Those ‘do-gooders’, which officers and governors often want to suppress” (Scott, 1996, p. 53), “naive idiots” (Scott, 1996, p. 64) under the dominant pressure of the penal system and indifference from society describe themselves as having a poor self-image (Smith, 1997).

S. Reimer (2010) in his research on the well-being of Canadian pastors reminds that job satisfaction being a pastor relates to age, stress level, areas of weakness, and congregation. The younger pastor is, the more stress the job duties cause, the more time is spent in areas of weakness, the higher tensions between the pastor and the congregation are the less job satisfaction (and as result well-being) it will bring. Similar connections are seen in another research on demographic characteristics of prison chaplains which states that chaplains are usually male (85.2%), white (84.2%), Master (62.2%), Bachelor (13.4%), and Doctoral degree (16.5%) holders, trained in pastoral counselling (70.3%), protestant (69.4%) in their religious affiliation with mean age of 56.5 years and mean age experience of 10.3 years.

Thus, the research of literature has discerned several features which distinctly indicate that those working in branch 1. definitely have high self-acceptance which allows them to go through this high opposition of penal routines, stand for their beliefs in spite of all the resistance around; 2. are well-educated, self-sufficient, self-guided, and even self-critical, which logically leads to the next conclusion; 3. are too critical for themselves that it even causes poor self-image; 4. yet are dependent on such demographic factors as age, gender, and race, the factors which serve as a solid ground and premise for a successful ministry to those incarcerated and build foundation for common sense of well-being.

Personal growth. In those countries where the penitentiary has been known for centuries, prison chaplaincy introduces the whole idea of felony-penalty-favour. Prison chaplaincy concept refers to 220 years historical records which declare that the glorious profile of a prison chaplain is still “under reconstruction” (Ignatssons, 2020, p. 101), and provide through ages documented testimony that

prison chaplaincy then and now is challenged to develop constantly and full heartedly. The dynamics of prison chaplaincy development in general causes every chaplain to change in reaction to new requirements expected from his personality. The fact that the society is no longer “strongly underpinned primarily to Christian values” (Smith, 1997, p. 49), and chaplains are “increasingly threatened with a large number of Buddhists, Muslims and Hindus” (Scott, 1996, p. 51), where welfare “specialists” put the end to “compulsory attendance at chapel” (Scott, 2013, p. 27), and the attempts to reconcile high ranked German SS officers with global society and get them to “admit their crimes before humanity” (Kellenbach, 2004, p. 34) totally fail, it requires “new legitimacy of and need for chaplaincy” including it “on multidisciplinary teams”, with further “exploration of the potential role of faith based initiatives” (Timmins et al., 2018, p. 18) which basically means that there is a need for “a new wave of growth” (Ignatssons, 2020, p. 22).

Thus, as it is seen above the chaplains tend to have grown up to a solid age, significant understanding, and yet to be supportive to the inmates' new life and new start in their life (Sundt, Cullen, 2002, p. 65). The same point of view brings S. Reimer (2010) when explaining that younger pastors are more critical of their congregations, while aging pastors “become less idealistic or more competent as they age” (Reimer, 2010, p. 11).

Purpose in life. Prison chaplains certainly differ from all other prison staff as much as “theology of punishment” deviates from the “theology of rehabilitation” (Ignatssons, 2020, p. 36). These are two opposite and distinguished behaviours with two very different purposes. S. Reimer (2010) outlines a similar problem in his research on pastoral well-being when a pastor has one purpose while the congregation has quite a different vision and is not able to agree on common agenda, satisfying both parties; it is exactly when “pastoral job satisfaction suffers” (Reimer, 2010, p. 13). Prison chaplains (in 86% cases), compared to other groups of society, strongly believe in the inmates' ability (and legal right) to rehabilitate during their imprisonment and thereafter (Sundt, Cullen, 2002, p. 66). Thus, the professional goals and personal beliefs of a prison chaplain meet and form their life credo. This group of clergy has their unique convictions.

Positive relations. The well-being of a prison chaplain in the context of their positive relations can be described as “on the fence in between” as stated by D.Scott (1996, p. 50 referring to Stokes (1988, p. 3)). Due to the reason that prison chaplains are exposed to dehumanization and “brutal behaviour of their fellow officers” (Sundt, Dammer, & Cullen, 2002, p. 372) require the other relationships to be as positive as possible in order to balance their well-being and raise job satisfaction. The recipients of chaplain services are most likely to be those “good guys” who somehow influence chaplain's job satisfaction and appreciate their

efforts and through-battle carried support. However, a number of researchers might oppose such an assumption and note that prisoners are “lads off the streets”, “who rarely rehabilitate” (Scott, 1996, p. 15), who know and have experienced what dehumanisation can be like (Ignatssons, 2020, p. 38), coming from homes with improper duties of parents, and usually low neighbourhoods, as stated by H. Smith (1997 referring to Forsythe (1987)). Those prisoners, whom chaplains would count with were mentioned as “many who claimed to be converts”, but “were not”, those, who were either “hypocrites”, or “weak willed victims of temptation”, or who used to become penitents – “who wept and prayed out of nervous depression” (Scott, 1996, p. 36). So, if the chaplain receives much satisfaction neither from prison staff/ system, nor from the inmates themselves where does it come from? S. Reimer (2010) also indicates that there “are the positive correlations between job satisfaction and relational support, such as having help in areas of weakness and having a confidant” (Reimer, 2010, p. 8).

This is also true vice versa – having neither a confidant, nor any relational support where they would need it can bring to an opposite effect. Another positive correlation was found when examining congregation’s health and pastor’s well-being, where “the tendency of the congregation to burn out pastors” was obvious in relation to “the financial well-being of the congregation” (Reimer, 2010, p. 8).

So, these all above mentioned statements show how fragile the status of positive relations for every chaplain is. He has not got much support for rehabilitation work in the eyes of either inmates or prison staff. However, according to J. L. Sundt, H. R. Dammer and F. T. Cullen (2002) in this great conflict of the society, especially in how they conceptualized penitentiary – punishment systems there was another group – “members of the public who believed in religious forgiveness” (Sundt, Dammer, Cullen, 2002, p. 373).

Autonomy. Chaplains’ real autonomy rests from one side on their perception of their freedom and independence in their work duties and on the other side on the freedom and independence they provide for their beneficiaries. In the context of well-being a number of researchers shed light on autonomy pointing out the holistic model of ministry where the “whole person and his well-being” (Ignatssons, 2020, p. 48) was studied and not only “focused on clinical benefits” (Timmins et al., 2018), but also executed positive power, was able to give, support, nurture people, be responsible for others. “It is about partnership and cooperation...; it is about influencing the process of individual and cultural transformation within the penal system” (Smith, 1997, p. 252).

As it is seen above the real autonomy prevails only there where the others’ autonomy is preserved, defended, and cultivated. L. Griscenko (Griščenko, 2016) provides another prerequisite that catalyses the autonomy processes in the healthcare sector and “focuses on the patient’s quality of life maintenance and improvement”, where three parties (chaplain, hospital staff and patient)

collaborate. The idea that the high level of autonomy can be reached only alongside other humans/ with other groups, specialists and their determined efforts, or/ and in interaction with them was also supported by S. Reimer who found that pastors, especially young ones, would benefit (become more independent) from administrative help, others would need a confidant, mentorship in special cases, and, as prerequisite number one – the leadership/ taskmasters “should have reasonable workload expectations from their pastors” (Reimer, 2010, p. 12).

Environmental mastery. Prison chaplains being “on the fence in between” (Stokes (1988, p. 3) in Scott (1996, p. 50)) demonstrate a great skill of mastering the two worlds, a skill to find a balance as well as advocate for inmates in such a way that criminals feel guilty and willing to repent. They are being “mocked and teased in a large group of inmates, however, never denied the right to be there and serve “the therapy of sharing a trouble” (Scott, 1996, p. 68) still remain to be “the objects of fun and attacks of ridiculous secular doctrines” (Ignatssons, 2020, p. 34), and yet they deeply believe and perfectly demonstrate what “unconditional love, mercy, compassion and forgiveness” (Ignatssons, 2020, p. 34) are about. Only so “can he maintain his independent witness and exercise a ministry of reconciliation” (Scott, 1996, p. 50).

Managing work duties, ministerial functions, as well as executing their civil rights, prison chaplains face all sorts of challenges and needs during their life journey which influence job satisfaction and well-being. L. Yang (2018) studies well-being and even measures it to find that “income receives the lowest relative weight” for many groups of population and shows that “many studies comparing people within countries have found only a small effect of income on life satisfaction relative to other life circumstances” (Yang, 2018, p. 15). “Health, on the other hand, receives a very high weight” resumes L. Yang (2018, p. 16). In accordance with the latest findings of S. Reimer (2010) and L. Yang (2018), it is clear that prison chaplaincy sustainably develops and flourishes when the following requirements are met: 1. there is a necessary administrative help; 2. there is an access to a confidant; 3. mentorship is available; 4. the level of stress due to workload is manageable, not overloaded. Studies point out that prison chaplaincy is required to demonstrate sharpened professional competence and sets a high moral standard for their personal qualities.

Methodology

The phenomenological research method was used to carry out research, the data were collected by interviews, participants’ diaries and the analysis of the Stakeholder and Problem Tree reports. The focus was on deliberate experience or “lived experience” research. The phenomenological research contained four

stages: bracketing, intuiting, analysing the data and describing the data (Langdridge, 2007) (see Table 1).

This phenomenological research was a part of a larger scale of “Contextual and Collaborative Action Research with Interactive/ Collaborative inquiry features where participants – co-researchers were invited to design their “future” (further development)” (Ignatssons, Odina, 2020, p. 113). It united both the academic intentions (presented by the University of Latvia) to study the phenomenon and the organizational known as GNJ&PM International (abbreviation for Good News Jail and Prison Ministry).

It is a non-profit organization whose mission is, to provide spiritually mature, equipped, and motivated Christian chaplains. GNJ&PM International is the largest independent supplier of chaplains for jails and prisons worldwide, serving in 22 states, one American territory and 25 countries. It attempts to qualitatively transform as well as develop globally the cooperation with the partner countries and foster the development of harmonious and prosperous economic and political links between old and new states in order to bring a change into existing organizations or even to start new ones.

Table 1 Phenomenological Research Process

Research stage	Specification
Bracketing stage	<p>Research problem outline: respondents who had undergone the identical phase; limited staff (more than 83000 inmates for only 42 chaplains); enormous workloads (Every prison facility is apr. 1000 – 2000 inmates (in.), where Latvia app. 500 in./chaplain (ch.), and chaplain available 40 hours/week; Russia, Ukraine, Kyrgyzstan ap. 1300-1500 in./ch., frequency – 2 hours/week); political, social, religious, economic unfavourable conditions (Russia, Kyrgyzstan, Ukraine, partly Lithuania, least Latvia). Leaders of national prison ministries, known as GNJ&PM (GN) National Directors (NDs) 6 (only NDs) up to 12 people (ND and his deputy)</p>
Intuiting stage	<p>The researchers learnt about the phenomenon as described by the participants. During this stage the target sample was identified and the data were collected locally (the interaction chaplain-inmate in their geographical regions) and online (between chaplains (NDs) and the researchers – via ZOOM, WhatsApp, GOOGLE Classroom; Participants collaborate online mainly)</p> <p>Stratified random sampling (6 NDs – presenting sample all Eurasian GN PC (totally 43) was used.</p> <p>The interviews were semi-structured, the participants were asked to answer 20 questions with possible additional questions, if necessary. The data were collected in the respondents’ mother tongue: Latvian, English or Russian. Interviews lasted from one to four hours.</p>

	Research question: what Eurasian prison chaplain's well-being is and how their job satisfaction could be raised.
Analysing stage	The data were categorized according to 6 positive psychological well-being factors: self-acceptance, positive relations, environmental mastery, personal growth, autonomy, purpose in life. In total six interview transcripts, 63 diary entries and six analysis of Stakeholder and Problem Tree reports were approached to seek what meaning and structures emerge.
Describing stage	The interpretation of the consolidated data. Initially, at this stage, all the structural descriptions associated with every individual were synthesized to determine the psychological meaning and furthermore to describe invariable characteristics across the description. The focus of the study was on seeing these aspects holistically – in the centre there was a prison chaplain with his unique experience that was based on the lived experiences of well-being. Well-being was examined to reveal a deeper understanding of this concept, collect unique data, and the result of the phenomenological research would possibly encourage other individuals to realize their well-being potential, as well as future studies in this field.

Research Results

The results are grouped in three major categories and form a sufficiently full picture of Eurasian prison chaplains' well-being in general, their professional needs and personal motivation as well as problems they face in their field of their ministry in the context of their job satisfaction in particular.

Analysis of the **interview on Eurasian chaplains' well-being** significantly indicated the following distinctive features 1. a various family background, with quite a similar state formation (all coming from the former Soviet Union); 2. a dramatic change respondents experienced in their life (five out of six cases); 3. being not interested in sports, training programmes, neither willing to mention any diseases or illnesses; 4. not being able to reason about their salaries (especially respondents in the eastern countries); 5. having a real danger while performing their ministerial or work duties (three respondents); 6. having different hardships at service performance (five respondents).

To compare Eurasian GN prison chaplains' status of well-being to that, found in literature review the following contradictory facts should be mentioned.

Self-acceptance. Four respondents have got a positive marital life experience, two – have experienced negative consequences of poor family life and “*insufficient parental care*”, all the respondents like what they do, however, sometimes (in three cases) their relatives do not share the respondents' “*new religious experiences*” neither their “*new services*”, but in three cases respondents have a strong supportive backup from their own families. In two cases the

respondents have experienced divorce and discouraging effects of it. Current marital status is outlined by four respondents as positive experience. Two respondents have experienced the negative touch of prison life, criminality, and drug dependence a rather long time ago. They are very careful to “*not traumatize people and in opposite they love people and working with people*”. Concerning respondents’ transformation experience, five respondents have experienced a dramatic change in their professional career that can also add an extra value to their self-acceptance status. They also enjoy their personality and, as it is traditionally accepted by most evangelicals, they still work on their behaviour and habits. Through all the interviews there was a thread of satisfaction in every respondent’s response on what they did and how they felt about what they did. So, the question if the respondents are satisfied with their life is absolutely “Yes”. Thus, they can do a lot more for others.

Personal growth. Despite health limitations and past unhealthy lifestyle (three respondents), the desire to develop both professionally and personally was strongly expressed by all respondents. Respondents’ answers revealed the specific interest for their ministerial duties and quite limited attention to political, social, cultural life/ organizations that the respondents would be members of. The people who are satisfied with their job situation, however, want a constant development in their professional duties and are considered as good and potential co-workers.

Purpose in life. According to the respondents’ answers there are clear indicators that there is a purpose in life in each case. The respondents demonstrated their awareness of what sort of purpose they were inspired through their commitment to Christian values, readiness to act the way they were treated themselves. They believed: 1. “*God loved them*” and 2. “*God loved the other people*” which would give them a special motivation to behave accordingly and show no indications of “*existential pains and endless theories of fruitless philosophies*”. However, there would be difficulties in trying to measure their unwillingness (or willingness) to be “*only one profession representative... and work at one place only*”. Cultural differences are obvious here because some of the cultures treat chaplaincy as “*a highly appreciated title rather than a routine job within prison system*”. Some answers showed the respondents’ unwillingness to discuss their loyalty to current GNJ&PM organization due to so many new things that they had experienced during the last 6 months. “*Changing work, employer, working habits are considered to be a bad style and poor personal life management in Swedish culture*”, however, the societies the respondents come from do not resist any work, employment, or working habit changes.

Positive relations. Empathy, caring, supporting others’ relationships were traced through the interview “*I love to be with people... I cannot be alone. I need to be with others and do something. I love ministering to people. To see people change. It makes me warm*” and showed the respondents’ concern object –

inmates “*when somebody repents, changes, transforms, somebody’s got a new life, car, house, family*”, prison staff and even church members. As mentioned above the family backup was referred to as a substantial resource of energy and positive emotions of prison ministers.

Autonomy. The respondents showed their concerns about what the interviewer meant with “autonomy” and indicated the variety of different interpretations so common to cross-cultural networks. The interview responses raised a number of topics for further discussion which can be channelled to several Eastern-Western contradictions: “*being rich meaning independent*” in the East requires another virtue – “*being in collaboration/ in the right relationship with others means being independent*” in the West. “*Being tightly related to their congregations*” caused a sense of freedom in the East while “*a reasonable distance from other groups*” was cherished in the West. The respondents from Western countries showed independence by being open and transparent, honest and in harmony with their inner self, while Eastern respondents put more value to independence related to being closed, hiding or even suppressing their real self, being in accordance with the politically correct concepts rather than their personal beliefs and motives.

Environmental mastery. The respondents as Christian chaplains demonstrated the ability to “*affect the world around*”. They were acquainted with dependencies, experienced their own (in three cases) negative criminal backgrounds, struggled with absence of mentorship, yet managed “*to stay clean*”. According to communication psychology the respondents’ leadership styles could be classified as analytical thinker in two cases, supporter in two cases, real director in one case and initiative leader in one case. Concerning research respondents, these styles of leadership were more limited (in four cases) in their ways to manage or even exploit the environment. Despite they inhabited very different leadership styles and were critically limited to perform their ministerial duties, the respondents mastered the uprising situations very efficiently.

The analysis of **dairies and Stakeholder and Problem Tree reports** gave an understanding of what sort of job satisfaction experienced Eurasian prison chaplains. National directors’ dairies and report analysis pointed out the current state of the art of Eurasian prison chaplaincy in detail, which exposed by occupation in five cases, not being loyal (or attentive) to the vision of the organization (five cases), disappointed or discouraged with expectations from GN leadership on how chaplains would perform their duties in all cases. During the thorough report analysis the following facts were identified: 1. there had been many other groups of people connected to the ministry than those 80 thousand inmates in 80 facilities, reaching up to 1.200.000 people in total; 2. some of those groups needed immediate and urgent attention even more acute than the inmates; 3. several simultaneous processes were identified in organizational development

dynamics during the research pointing out deficits in organizational structure, communication and staff interaction.

Stakeholder and Problem Tree analysis brought the final clarity of what chaplains' professional expectations and personal interests would be in the context of sustainable development and what sort of problems should be dealt with in order to conquer the hostile opposition from the outsiders and refurbish unfavourable working conditions.

Stakeholder Tree introduced two major interested parties, their interests, the requirements for their continuous support of the ministry, and appropriate participation mechanism. Both National Directors and chaplains: 1.urgently needed training of new skills, "*improved job prospects*", better work practice as well as motivating work environment; 2. required (in order to stick to organization/ vision) administrative, pastoral care, strong partnership, access to training, participation in international projects; 3. would participate in updates on ministry progress, in training design, in local ministry vision/ goal identification.

Problem Tree analysis exposed four crisis areas such as material and technical base, legal status, prison administration, partnerships (Christian and other NGOs). While the "tree's" roots began deep in economic and political instability (all but Latvia), accompanied with "*intolerance from the society towards protestant Christians (evangelicals)*" the branches of the "tree" would expose the current stage of GN prison chaplains in Eurasia: 1.who had no work equipment, no office inside nor outside of prison, "*chased after money*", or struggled to "*find time for ministry*"; having all those deficits stuck in the situation where there was no work process, which meant zero production outcomes; 2. being "*persona non grata*", they faced identification problems, being not accepted by government nor welcomed by society; 3. watching the society rejecting inmates and "*negating prisoners' rights to the second chance life*" caused a situation where not only job satisfaction but also well-being of prison chaplains in Eurasia was endangered.

Conclusions and Discussion

The findings of the research in combination with literature review pointed out to two quite different simultaneously existing profiles of a prison chaplain – the first one belonging to old European countries (most referred in the academic literature to) with long pastoral tradition while the other ones coming from former Soviet Union countries (the participants of this research) with quite a short history record. While the traditional chaplain is highly educated, with mean age of 56,5 years and 10 years of experience in the field, self-sufficient, self-guided, and, possibly, because of that self-critical of his colleague from Eurasian GN prison chaplaincy who is much younger (mean age 42,6), much lower educated (no

bachelor, master, doctor degree holders were found during the research), having experienced a dramatic change in their life, yet self-accepted, supported by their families, possibly more optimistically tuned.

The common for both groups remain their love and caring for people, and belief in the moral right for the second chance. Both groups indicated their willingness to grow personally and professionally, while the traditional chaplains, influenced by the dynamics in the whole penitentiary system just followed the stream in order to remain in the prison system structure, their Eurasian GN colleagues tried to find and establish their place within developing correctional institutions in the newly announced democratic countries. Both groups possess a unique feature, known as calling of God – call for their life, strong convictions, well-formulated life credo which promotes their and other people's well-being, includes inmates' rehabilitation and, thus, fully rests on the forgiveness of sins – the bill is paid – no worries about it anymore.

The only difference which slightly discerns the groups is: the first ones have not had criminal background while the representatives of the other group have been in the role of inmate in 30% of cases. Their positive relations have roots in fellowship with people having the same moral platform to such an extent that it is possible to generate enormous encouragement and inspiration in struggle with the punitive systems, hostile societies, asocial norms, and behaviours.

Autonomy was perceived and exposed by each group in quite a different way. While Eurasian GN prison chaplains understood their independence status in the light of higher social status, obtaining more power, stronger influence on others, and even prevailing over average economical level, the traditional chaplains considered their independence only in context of other people being around, in rather tight collaboration/ interaction with others, with effective models of cooperation when there was no need to suppress, prevail, dominate. Western prison chaplaincy in the sense of job satisfaction in short and well-being in long term relies upon administrative support, mentorship, access to a confidant, controlled work stress level and thus demonstrates highly professional competence and service, not laying too much focus on income, while their Eastern followers not having an appropriate income face daily difficulties and hinder with not less engagement and proficiency than those on the West.

The research deepened the understanding of the real state of Eurasian GN prison chaplains. Thus, in the light of the sustainable development of the prison chaplaincy, the foundational factors required for organizational growth and staff motivation were identified. Due to the collected data on the crucial dissatisfaction with the current status of prison chaplain (which contradicted with the interview on well-being) it was found that chaplains' personal life (and psychological well-being) had no connection with their job satisfaction to such an extent as of those in the West. The Stakeholder Tree analysis clearly declared what sort of state the

chaplains would fight for, live to, long after and stressed out that without paying attention to their professional needs and personal interests the organizational move forward would not be possible. Problems that chaplains faced testified that those people, their local organizations were pioneers and first explorers in those dark places, yet still just at the starting point of the ministry initiation (an absolute exception was Latvia, where chaplaincy was established by the state; Lithuania, though, was partly accepting GN chaplains who had to struggle for their religious neutrality themselves).

The research analysis has raised rather more questions for the researchers than produced ready recipes. Before the research started in their initial ambition the researchers had planned to design an educational platform for professional chaplain training to maintain their well-being (Ignatssons, Odina, 2020). However, during the research and afterwards, the findings lead to other conclusions. Thus, in the light of organizational change the educational focus should be drawn to the implementation of any measures which would favour Eurasian GN prison chaplains' loyal connection to the global network and vision concept, promoting their personal interests, and professional competence growth. Now the motives of the Eurasian chaplains to grow professionally/ personally are likely to be caused by the desire for superiority and excellence.

Another discovery alongside the research showed that national directors were not so enthusiastic about any organizational change as the researchers had thought before which affected the process later to a substantial extent. It could point out to the situation when the workloads exceeded the workforce capacity.

Chaplains' perception of autonomy, naive and modest anticipations while dealing with such strongholds as dictatorial and reactive government establishments and still mastering their service performance in the middle of the battle show how much should be done in order to build a common ground of values for both Eastern and Western chaplaincy profiles in order to win humanity.

The final question generated by this research left the researchers without any profound explanation and totally disabled the programme for prison chaplain professional education. Which direction should the chaplain choose: from prison towards society or from society towards prison? GNJ&PM has invested 20 years of faithful support and parental guidance, laid foundation for the ministry to inmates, repeatedly shown the direction – towards prisons, towards inmates, from outside inside and thus, has succeeded. However, today the great shift has taken place in cultures, sciences, businesses, even in the ministerial field – from solo to orchestra – from one to many, from inside towards outside. Shall the chaplain stay alone in his job satisfaction and well-being or share it with many others, is the question.

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VARDARBĪBAS RISKĀ NOVĒRTĒŠANA PSIHIATRIJĀ- LITERATŪRAS APSKATS, LATVIJAS UN VĀCIJAS PRAKSES SALĪDZINĀJUMS

Violence Risk Assessment in Psychiatry - Literature Review and Practice Comparison between Latvia and Germany

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Abstract. Evidence-based future community violence risk assessment is a crucial issue in psychiatry. It is a cornerstone of safeguarding the rights of persons with mental health issues. Authors aimed to analyse the modern methods of risk assessment in psychiatry and the current practice and legal framework. Authors undertook a scoped review of the literature with search terms related to future community violence risk prediction for mentally disordered offenders in Latvian, English, German, and Russian languages. Main difficulties in future community violence risk assessment are demonstrated via Latvia's court decisions analysis. Marked differences were identified: there are no standardized methods available/registered in Latvia, therefore risks assessment is performed via clinical assessment only. In Germany, the risk assessment is performed via structured evidence – based risk assessment tools and clinical assessment; nevertheless, the choice of the assessment tool remains challenging.

Keywords: Forensic psychiatry, standardized tools, violence risk assessment.

Ievads

Introduction

Pēdējo gadsimtu mijā tiesu psihiatrijas fokuss nobīdījās no pieskaitāmības novērtēšanas uz bīstamības koncepciju – atkārtota nodarījuma riska novērtēšana kļuva par centrālu jautājumu, kas nosaka terapeitiskās programmas izvēli, bet drīzumā, iespējams, kalpos primāras prevencijas nolūkā (Salize & Dressing, 2005). Runājot par psihiski slimo likuma pārkāpēju novērtēšanu, tiek pieņemts runāt ne vien par bīstamību, bet gan par riska pakāpes novērtēšanu un mēģinājumu: visbiežākais veids, kā to novērtē, ir klīnicista viedoklis (Large & Nielsen, 2017), kurš balstās uz viņa zināšanām un pieredzes. Pēdējo gadu laikā Vācijā noziedzības un vardarbības riska prognozēšanas jomā ir notikuši ievērojami

uzlabojumi, palielinājušās juridiskās prasības ekspertu atzinumiem par riska prognozēšanu. Tā, par vienu no jaunajām prasībām, kas uzlaboja prognostisko ekspertīžu kvalitāti, kļuva strukturēto un standartizēto instrumentu izmantošana (Kuri, 2007). Latvijā atbilstoši “Ārstniecībā izmantojamo medicīnisko tehnoloģiju datu bāzei” (ZVA, 30.01.2021) nav neviena tulkota, adaptēta un/vai validēta instrumenta agresijas un vardarbības riska novērtēšanai – tas tiek prognozēts, balstoties tikai uz klīnicista novērtējumu.

Mūsu pētījuma mērķis ir veikt literatūras pārskatu par modernajām riska novērtēšanas metodēm psihiatrijā un salīdzināt attiecīgo tiesisko regulējumu Latvijā un Vācijā. Literatūras pārskatā tika iekļauti avoti latviešu, vācu, angļu, krievu valodā- zinātniskā literatūra, tiesību akti un tiesu nolēmumi.

Literatūras pārskats *Literature Review*

Līdzīgi kā citi psihiatriskā darba aspekti, pacienta vardarbības riska novērtēšana ir psihiatra potenciālās juridiskās atbildības iemesls (Buchanan, Binder, Norko, & Swartz, 2012). Tāpēc kopš pagājušā gadsimta beigām tiek izstrādātas metodikas, kas palīdzētu ārstiem ekspertīzēs un klīnisko lēmumu pieņemšanā; kopumā tās var iedalīt trijās kategorijās:

- a. Nestukturēts klīniskais vērtējums.
- b. Aktuāri novērtēšanas instrumenti.
- c. Strukturēti profesionālie vērtējumi, kuri apvieno statistiskas un klīniskas metodes (Polubinskaja & Makushkina, 2016).

Pēc Latvijas tiesu prakses, lemjot par medicīniska rakstura piespiedu līdzekli (MRPL) primārā nozīme ir personas veselības stāvoklim un riskam, ka persona nākotnē var izdarīt darbību, kas radīs kaitējumu personai pašai vai citu un sabiedrības interesēm. Prognozējot personas uzvedību nākotnē, tiek ņemts vērā un analizēts personas izdarītais nodarījums, ar to saistītie fakti un tā izdarīšanas apstākļi (Augstākās Tiesas tiesu prakses apkopojums, 2011/2012).

Izmantojot šo pieeju nākotnes uzvedības paredzēšanai, tiesa vadās no sen zināma – dziņu un tieksmju perversiju gadījumā personai piemītošā slimīgā tieksme (piemēram, garīgi atpalikušā tieksme dedzināt jeb piromānija) ir noturīga un pie izdevības tiek atkal realizēta, bet psihisku saslimšanu gadījumā paasinājumiem ir klišejas raksturs (respektīvi, ja pie šizofrēnijas manifestācijas bija agresija, tad tuvākie paasinājumi noritēs ar agresiju). Toties netiek ņemts vērā cits būtisks aspekts – slimībai progresējot, vardarbības risks (un līdz ar to psihiski slimās personas sabiedriskā bīstamība) var pieaugt: piemēram, personas ar vajāšanas, greizsirdības, iedarbības murgiem slimības sākumā mēdz veikt mazāk nozīmīgus likuma pārkāpumus, bet slimībai progresējot – krimināltiesībās paredzētus smagus un sevišķi smagus noziegumus (Nazarenko, 2008).

Tā, piemēram, Krievijas tiesību zinātņu profesors Pjotrs Kolmakovs uzskata, ka sabiedrisko bīstamību nosaka nevis pagātnē paveiktais sabiedriski kaitīgais nodarījums, bet psihiskā saslimšana, un norāda uz nepieciešamību izstrādāt vienotu metodiku MRPL nozīmēšanai un vispiemērotākā MRPL veida izvēlei (Kolmakov, 2017).

Lai gan psihiski slimās personas sabiedriskā bīstamība ir tiesisks jēdziens, tā balstās klīniskajā novērtējumā (Rowlands, Palk, & Young, 2017), ko tiesa uzziņa, formulējot savus jautājumus. Vācijā jautājumu klāsts, ko tiesa uzdod tiesu psihiatrijas ekspertam ir visnotaļ stabils; piemēram, lemjot par pieskaitāmību vai nepieskaitāmību, tie būtu: Vai personai ir kāda klīniska diagnoze? Ja ir, vai pastāv krimināllikumā minētie nepieskaitāmības kritēriji? Ja atbilde uz iepriekšējiem diviem jautājumiem ir apstiprinoša, vai personai pastāv atkārtoto likuma pārkāpumu risks viņas traucējumu dēļ? (Gunn & Taylor, 2019).

Novērtējot personas sabiedrisku bīstamību tiesas laikā, juristam (tiesnesim, prokuroram, advokātam) tiek rekomendēts uzdot vismaz trīs jautājumus ārstam, kurš novērtēja risku - tiesu psihiatrijas ekspertam vai ārstam speciālistam: Vai riska novērtēšana notika ar instrumentu, kurš ir piemērots konkrētam indivīdam vai tas ir tikai klīnisks novērtējums, balstīts empīriskos novērojumos? Kāda datu ievākšanas metode tika pielietota, lai novērtētu risku un izdarītu prognozi? Kāda ir slēdziena vērtība un uzticamība? Visaugstākā vērtība, acīmredzot, ir metožu kombinācijai, klīnisko novērtējumu pastiprināt ar objektīvu instrumentu (Parry, 2009).

Grūtības, ar kurām saskarās Latvijas tiesas, vērtējot psihiski slimās personas sabiedrisko bīstamību, demonstrē sekojošais spriedums: 2015. gadā personai A bija atcelts MRPL - ambulatorā ārstēšana - tiesai atzīstot, ka A veselības stāvoklis ir mainījies tiktāl, ka viņa vairs nav bīstama sabiedrībai. Tiesa pie šāda secinājuma nonākusi, ņemot vērā:

- a. ārsta speciālista atzinumā secināto, ka A var piedalīties tiesas sēdē, tādējādi nepamatoti izdarot secinājumus par viņas veselības stāvokļa uzlabošanos;
- b. kopš 2013.gada A reti apmeklē ārstu psihiatru, pretēji iepriekš tiesas noteiktam apmeklēt ne retāk kā reizi mēnesī, un faktu, ka viņai netiek izrakstīti medikamenti;
- c. A pārstāves teikto, ka bāriņtiesai nav informācijas par A izdarītiem administratīvajiem pārkāpumiem.

No šiem faktiem rajona tiesa secinājusi, ka A psihiskās veselības stāvoklis nepasliktinās un viņas uzvedība ir stabilizējies. Psihiatra sniegto informāciju, ka A 2014.gadā trīs reizes ārstējusies psihiatriskajā slimnīcā (pēdējo reizi sakarā ar saindēšanos ar etiķi) rajona tiesa lēmumā vispār nav vērtējusi, kā arī par to nav pieprasījusi informāciju no psihiatriskās slimnīcas. Rajona tiesa savu lēmumu par MRPL atcelšanu nav pamatojusi ar ārsta speciālista atzinumu – tā vietā iz-

mantojot tikai psihiatra sniegto informāciju par A. Pati A tiesas sēdē nav piedalījusies. Augstākā Tiesa konstatēja, ka lieta ir nosūtāma atkārtotai izskatīšanai, minēto pārkāpumu novēršanai. Augstākā Tiesa arī paskaidroja, ka ārsta speciālista atzinumam Krimināllikuma 69.panta izpratnē jāsaturs slēdzienu par personas psihiskās veselības stāvokli, uz kura pamata tiesa var izlemt jautājumu par piemērotā MRPL izbeigšanu vai grozīšanu (SKK-0258-15 Augstākās Tiesas nolēmuma fragments).

Citā lietā pirmās instances tiesa, pieņemot lēmumu par MRPL atcelšanu, atzinusi, ka personas S veselības stāvoklis ir mainījies tiktāl, ka viņa vairs nav bīstama sabiedrībai. Savu secinājumu tiesa pamatojusi ar:

- a. ārsta speciālista sniegto informāciju, ka persona psihiatru apmeklē ļoti reti (pretēji tiesas noteiktam apmeklēt ne retāk kā reizi mēnesī) un var piedalīties tiesas sēdē;
- b. S pārstāves paskaidrojumiem, ka viņai nav ziņu par S pieļautajiem administratīvajiem pārkāpumiem vai noziedzīgajiem nodarījumiem.

Tiesa ignorējusi, ka S pēdējā gada laikā ir vairākkārt ārstējusies stacionārā, dzīvesvietā nav sastopama un pārstāve ar S ilgstoši nav komunicējusi, uz tiesas sēdi S neieradās nenoskaidrotu iemeslu dēļ. Tiesa psihiatra sniegto atbildi atkal nepamatoti noturējusi par atzinumu (lai gan tas nesaturēja informāciju par S veselības stāvokli, kas ir visnotaļ saprotami, ja jau persona psihiatru apmeklē reti); tādējādi, tiesa nav pārliecinājusies, vai un cik nozīmīgi S veselības stāvoklis ir uzlabojies, lai izdarītu secinājumus par MRPL atcelšanas pamatotību. Arī šajā lietā Augstākā Tiesa atzina, ka rajona tiesas lēmums ir nelikumīgs, ir atceļams un lieta nosūtāma jaunai izskatīšanai pirmās instances tiesā (Augstākās Tiesas spriedums lietā SKK-0256-15).

Sakarā ar psihiski slimās personas sabiedriskās bīstamības kritēriju trūkumu, var rasties arī pretēja situācija - persona var tikt pakļauta nepamatotam savu tiesību ierobežojumam: piemēram, nepilngadīgais F personu grupā apzaga māju pagrabus (nozogot dažādus konservu burkas). Tiesu psihiatriskā ekspertīze konstatēja, ka F ir organiska tipa izmaiņas psihisko procesu norisē un nenoturīga pusaudža personība ar normālu intelektu. Ieteikts F atzīt par ierobežoti pieskaitāmo un noteikt viņam visvairāk ierobežojošu MRPL veidu - stacionāra nodaļā ar apsardzi. Tiesu kolēģija atzina, ka MRPL piemērošana F nav lietderīga un atcēla pirmās instances tiesas spriedumu (Rīgas apgabaltiesas Krimināllietu tiesu kolēģija, Spriedums Latvijas Republikas vārdā, Lietas Nr 11310081809, 2013.g.).

Vēsturiski kriminālas prognozes novērtēšanai Vācijā tika izmantota intuitīva metode, kad tiesnesim īsa laikā bija jāpieņem lēmums, balstoties uz savas iepriekšējās pieredzes un vispārējām teorētiskajām zināšanām (Göppinger, 1980). Šī metode pazaudēja savu aktualitāti - 21.gadsimtā attīstījās statistiskā metode ar dažādu prognozes instrumentu pielietošanu. Metodes pamatā ir empīriskajos pē-

tījumos konstatēti recidīva riska faktori. Objektivitāte un standartizēta pieeja ir statistisko metožu stiprā puse, bet šīs metodes darbojas tikai normālā sadalījumā apstākļos un pastāv kļūdu iespēja netipiskas pacientu grupās, tāpēc ir svarīgi statistiskās metodes kombinēt ar klīniskām metodēm, kas pamatojās uz anamnēzes ievākšanu un analīzi (Dittmann, 2000).

2007.gadā tika publicētas starpdisciplināras darba grupas rekomendācijas juristiem un ārstiem “Minimālās prasības prognozes ekspertīzēm tiesu psihiatrijā”, kuras saturēja 19 ekspertīžu kvalitātes kritērijus – tostarp nepieciešamību izmantot standartizētus riska novērtēšanas rīkus, nosakot arī riska pakāpi (Botticher et al., 2007). Vēlāk tika secināts, ka ar šo minimālo prasību ieviešanu ekspertīžu kvalitāte pieaugusi (König, Elsner, Schalast, & Leygraf, 2018). Pēc raksta autores darba pieredzes Vācijas slimnīcā “LVR-Klinik Düren” 2019-2021. gados prognozes ekspertīzēs vienmēr tika pielietots vismaz viens standartizēts vardarbības riska novērtēšanas rīks.

Līdzīgi kā Latvijā, arī Vācijā piespiedu ārstniecisku un korekcijas mēru (vāc. *Maßregelvollzug*) piemērošanas kārtību nosāka Kriminālkodekss (vāc. *Strafgesetzbuch*, turpmāk StGB). Šis likums nosaka arī gadījumus, kad jāveic prognozes ekspertīze (vāc. *Prognosengutachten*) (Kuri, 2007), tostarp:

- Personu ar garīga rakstura traucējumiem ieviejojot psihiatriskajā slimnīcā: šajā gadījumā piespiedu ārstēšanas ilgums netiek reglamentēts (StGB, § 63) un var turpināties vairākus gadu desmitus, ja saglabājas augsts vardarbības risks (The European Court of Human Rights, Fifth Section (2016). Case of *Klinkenbuss v. Germany*, Application no. 53157/11).

- Preventīvo mēru ietvaros, ieviejojot no narkotiskām vielām atkarīgus likumpārkāpējus narkoloģiskajā iestādē: šajā gadījumā mēru ilgums ir maksimāli 2 gadi pēc kārtas (StGB, § 64).

- Lēmuma pieņemšanai par atkārtotu ieviešanu psihiatriskajā klīnikā pēc soda izbeigšanas, ja pastāv augsts recidīva risks (StGB, § 66b).
- Ja pastāv turpmāko noziegumu draudi (StGB, § 68), tajā skaitā uzvedības uzraudzības ietvaros pēc soda izciešanas (StGB, § 68f).
- Pirmajos divos gadījumos, ne retāk kā reizi trijos gados personām ir jāveic atkārtota prognozes ekspertīze (Strafprozeßordnung [StPO], § 463 Abs. IV, 1950). Prognozes ekspertīzi veic pieaicināts no klīnikas neatkarīgais eksperts (ārsts vai psihologs).

Atkārtotas tiesu sēdes par tālāko piespiedu ārstēšanas turpināšanu vai atcelšanu notiek ik pēc 6-12 mēnešiem un tiesa savā lēmumā balstās gan uz neatkarīgo ekspertīzi, gan uz riska novērtēšanu, ko veic personas ārstējošais ārsts vai psihologs (StGB, § 67). Lēmumu par piespiedu mēru grozīšanu pieņem slimnīcas virsārsts, ārstējošais ārsts vai ārstējošais psihoterapeits-psihologs (vāc. *Bezugstherapeut*) kopā ar personas ārstēšanā iesaistīto vidējo medicīnisko personālu. Uzlabojoties pacienta veselības stāvoklim un nākotnes prognozei, tiek

pielietoti režīma mīkstinājumi (vāc. *Schwellenlockerungen*): tiek atļautas pastaigas ar personālu, patstāvīgas pastaigas, dzīvošana ārpus ārstnieciskas iestādes un ārstēšana ambulatori, darbs ar uzraudzību vai bez tās (*Maßregelvollzugsgesetz [MRVG], § 18, 1999*). Ārstējošam ārstam vai psihologam, sastādot atzinumu (vāc. *Lockerungsentscheidungsvorschlag*) par piespiedu mēru grozīšanu uz mazāk ierobežojošiem, obligāti jāizmanto vismaz viena riska novērtēšanas standartizēta metode (*Landschaftsverband Rheinland, LVR-Dezernat Klinikverbund und Heilpädagogische Hilfen Fachbereich Maßregelvollzug, 2008*). Pētot prognozes ekspertīžu veikšanas praksi Ziemeļreina – Vestfālenē, vācu zinātnieku grupa secinājusi, ka visbiežāk standartizēti riska novērtēšanas instrumenti tiek izmantoti, novērtējot pacientus ar seksuālas izvēles traucējumiem (68,8%) un garīgo atpalcību (63,6%). Šizofrēnijas spektra vai personības traucējumu gadījumā standartizētas metodes tika izmantotas retāk - 28%. Analizējot kvalitātes kritēriju izpildi, konstatēts ka tikai 39% no visām ekspertīzēm tika izmantotas standartizētas metodes (König, Elsner, Schalast, & Leygraf, 2018). Visbiežāk izmantotas standartizētas metodes bija HCR-20 (angl. *Historical clinical and risk management-20*), PCL-R (angl. *Hare Psychopathy Checklist-Revised*), SVR-20 (angl. *Sexual Violence Risk-20*). Bija pasvītrots, ka daļā ekspertīžu tika izmantota ASV radītā VRAG skala (angl. *Violence Risk Appraisal Guide*), taču tās ticamība Vācijas un Šveices penitenciāra sistēmā netika pietiekami pierādīta, un instruments nav validēts Eiropā. Vēl daļā ekspertīžu tika pielietots “Dittmana saraksts”(84 kritēriji 12 jomās), kas netiek uzskatīts par standartizēto statistisko instrumentu, jo nesatur punktu sistēmu un neļaus risku novērtēt ka “zemu”, “mērenu” vai “augstu” (Hachtel, Vogel, & Graf, 2019).

Pašreizējo riska novērtēšanas koncepciju veido divu veidu riska faktori: statiskie un dinamiskie. Statiskos riska faktoros (piemēram, sodāmība un vecums pirmās notiesāšanas laikā) uzskata par nemainīgiem, jo tie nav modificējami. Dinamiskie riska faktori, piemēram, narkotisko vielu lietošana, tiek uzskatīti par mainīgiem, un tāpēc tie ir uzskatīti par racionāliem iejaukšanās mērķiem. Ievērojams daudzums pētījumu ir parādījis, ka dinamiskie riska faktori ļauj prognozēt nodarījuma recidīvu (Nadelhoffer et al., 2012). Pēc zinātniskas literatūras datiem, par visprecīzākajām vardarbības riska novērtēšanas standartizētajām metodēm tiek uzskatītas LSI-R (angl. *Level of Service Inventory Revised*) un HCR-20 (Dahle, Schneider, & Zithen, 2007). LSI-R ir balstīts kriminālas uzvedības kognitīvi-biheviorālā teorijā, sastāv no 54 punktiem, kas tiek apvienoti 10 grupās (krimināla anamnēze, dzīves anamnēze, attiecības ģimenē un sabiedrībā, finansiāla situācija, dienas struktūra, narkotisko vielu lietošana, slimības klīniskā gaita). Katrs punkts tiek vērtēts pēc 4-pakāpju skalas. Instrumenta precizitāte tiek uzskatīta par mērenu līdz augstai. HCR-20 sākotnēji tika izveidots tiesu psihiatrijas mērķiem, bet pētījumi pierādīja tā precizitāti arī ieslodzītiem likumpārkāpējiem. Instruments sastāv no 20 punktiem vairākās dzīves jo-

mās (kriminālā anamnēze, pašreizēja uzvedība, psihiskais stāvoklis, potenciālie ar sociālo vidi saistītie riska faktori). Visi punkti tiek vērtēti 3 pakāpju skalās. Šī instrumenta precizitāte tiek novērtēta no mērenas (seksuālo noziegumu riska novērtēšanā) līdz augstas (fiziskas vardarbības riska novērtēšanā).

Jāsaka, ka standartizētu riska novērtēšanas instrumentu izvēle ir atkarīga no nozieguma veida (seksuālie noziegumi vai miesas bojājumi) un noziedznieka slimības (personības traucējumi, šizofrēnijas spektra traucējumi, garīga atpalcība, u.c.). Par paaugstinātu vardarbības risku pacientiem ar šizofrēniju varētu liecināt (Kröber, 2008):

- Anamnēzē ir likuma pārkāpumi un krimināla pagātne.
- Šizofrēnija, īpaši paranoīda, ar nepietiekami kontrolējamo produktīvu simptomātiku (vajāšanas murgi, iedarbības murgi, psihiskie automātismi).
- Destruktīvas un naidīgas murgu idejas, parafrēnijas ar intensīviem dzīvības apdraudēšanas idejām.
- Uztveres traucējumi ar pārliecību, ka tos izraisa vajātāju ietekme, respektīvi, sensorie automatismi.
- Stipras bailes, aizdomīgums, naidis, pieaugošs apjukums vai pieaugošas murgu idejas.
- Blakusesošie cilvēki tiek identificēti kā ienaidnieki.
- Vardarbības draudi, nogalināšanas draudi un paziņojumi, ieroču pirkšana vai nēsāšana līdzī.
- Iepriekšējie suīcīda mēģinājumi vai draudi (ir arī indikators bīstamībai apkārtējiem).
- Komorbīda alkohola vai narkotiku lietošana.
- Dīvaina rīcība attiecībā pret citiem cilvēkiem (pēkšņi pieskaras bērniem, trokšņo, haotiskā uzvedība, agresīvs noskaņojums).
- Sociāla dezadaptācija (bezpajumniecība, nepietiekams uzturs, ubagošana, sabiedriskas kārtības traucēšana).
- Antisociāla uzvedība-no bērības vai jaunības vai slimības remisijas laikā.
- Līdzestības trūkums.
- Ārkārtīga vientulība vai noslēgtība (psihomotori gausiem, nerunīgiem, noslēgtiem likumpārkāpējiem dažreiz ir vērojama neatbilstība starp emocionālo aukstumu un brutālām vardarbības idejām).
- Nelabvēlīga vide, piemēram, dalība sektās vai radinieki, kas neatbalsta vai sabotē ārstēšanos.
- Atbilstoši raksta autoru pieredzei, jāsaaka, ka minētie riska faktori sakrīt ar Latvijā tradicionāli pielietojamo psihožu slimnieku vardarbības riska izvērtēšanu un varētu tikt izmantoti attiecīgo metodisko rekomendāciju sastādīšanai.

Jāpiebilst, ka pasaules pētnieki aktīvi darbojas objektīvo un precīzu riska novērtēšanas instrumentu izstrādē. Pēc autoru datiem (Tortora, Meynen, Bijlsma, Tronci, & Ferracuti, 2020), daudzi pētnieki nonākuši pie secinājumiem, kā cilvēka uzvedība var būt saistīta ar viņa smadzeņu īpatnībām. Piemēram, daži no pētījumiem neirokriminoloģijas jomā liecina, ka personām ar psihopātiskām īpašībām ir novērotas novirzes smadzeņu limbiskajos un paralimbiskajos reģionos, un ka prefrontālās garozas bojājumi var būt saistīti ar emocionālo labilitāti un impulsivitāti. Pamatojoties uz tām zināšanām, tiek attīstītas jaunas vardarbīgas uzvedības riska novērtēšanas metodes, saucamas par “neiropredikciju”- smadzeņu strukturālo vai funkcionālo īpatnību izpēti, pielietojot, piemēram, attēldiagnostikas metodes. Pieaugot interesei par neiropredikcijas izmantošanu tiesu psihiatrijā, tiek iezīmēti diskutabli jautājumi: Vai cilvēki netiks diskriminēti un stigmatizēti “savu smadzeņu dēļ”? Kam un kādos apstākļos būs pieejami konfidenciāli dati par cilvēka veselību? Vai neiroradioloģiskie izmeklējumi notiks arī bez personas piekrišanas? Kamēr daudzi ētiskie un juridiskie aspekti nav skaidri, neirokriminoloģijas atklājumi netiek izmantoti riska prognozēšanā.

Secinājumi **Conclusions**

Vardarbības novērtēšanas prakse Latvijā un Vācijā būtiski atšķiras - Vācijā tiek stingri regulēta riska noteikšanas metodoloģija, tiek izmantotas objektīvas riska izvērtēšanas skalas; kamēr Latvijā psihiski slimās personas agresijas riska izvērtēšana balstās klīniskajā izvērtēšanā, bet personas atzīšanai par sabiedrībai bīstamo trūkst objektīvo kritēriju.

Latvijas riska novērtēšanas praksei ir nepieciešami uzlabojumi, ieviešot objektīvu vardarbības riska novērtēšanas skalu. Šajos nolūkos var tikt izmantota ārzemju pieredze, proti, pēc metodikas validācijas un adaptācijas Latvijas sociālajiem apstākļiem un likumdošanas noteikumiem. Par pamatu var izmantot pētījumus, kuros izvērtē un izstrādā strukturētu pieeju vardarbīgas uzvedības riska paredzēšanai, izmantojot klīnisko un statistisko novērtējumu, identificējot mainīgus riska faktorus. Turpmākajiem pētījumiem jābūt vēršoties uz riska novērtēšanas rīku pielietojamības noteikšanu dažādām iedzīvotāju grupām un apstākļiem Latvijā. Par cik instrumentu adaptācija un validācija ir laikietilpīga, var jau tagad rekomendēt izmantot Vācijas zinātnieku piedāvāto šizofrēnijas slimnieku vardarbības riska faktoru uzskaitījumu. Vienotas starpdisciplināras rekomendācijas juristiem, ārstiem un psihologiem uzlabotu vardarbības riska novērtēšanas ekspertīžu kvalitāti Latvijā.

Summary

Patient's violence risk assessment has to be objective and precise. Forensic scientists worldwide work on the objective evidence-based future community risk assessment tool. The authors investigated state of art methods of risk assessment in psychiatry, and the corresponding legal framework in Latvia and Germany. It was concluded that risk assessment is clinical judgments based in Latvia, while specialists in Germany are obligated to use structured tools in certain cases. However, as the application of the tool is not standardised in Germany yet, choosing the appropriate structured risk assessment tool can be challenging.

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CHILDBIRTH EXPERIENCE DURING THE COVID-19 PANDEMIC IN MATERNITY CARE INSTITUTIONS IN LATVIA

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Abstract. *The COVID-19 pandemic has had a major impact on people's lives worldwide, causing stress and anxiety for many people, including pregnant women. In addition do not knowing the implications of the new disease, pregnant women may also be negatively impacted by public health actions, such as limitations for accompanying persons to participate in childbirth and overall social distancing. The main objective of the research is to compare childbirth among women who gave birth during the COVID-19 pandemic with a control group. The data was collected using a questionnaire for Assessing the Childbirth Experience. 537 women who gave birth in 2019 and 2020 were included in the research and divided into two groups based on whether they gave birth before or after the state of emergency was declared in Latvia on March 12, 2020. The data was analysed using the IBM SPSS statistics program. The results showed that the childbirth experience for women giving birth without an accompanying person was statistically inferior on several accounts (process control, level of fear, breastfeeding support, etc.) than for women who had an accompanying person participating. In the research group there were proportionally more such women than in the control group, showing that COVID-19 has negatively impacted childbirth experience for many women.*

Keywords: *Childbirth experience; COVID-19; maternity care; pandemic.*

Introduction

The World Health Organization (WHO) announced the global coronavirus disease 2019 (COVID-19) a pandemic, in March 2020 (World Health Organization [WHO], 2020). The COVID-19 outbreak has led to the death of over two million people leaving a huge impact on health care institutions worldwide

(WHO, 2021). Due to the high transmission rate of COVID-19, society had to drastically change its daily habits, practice social distancing and intensify hygiene procedures. In Latvia the state of emergency was declared on March 12, 2020 (Ministry of Culture of the Republic of Latvia, 2020). Following the state of emergency declaration in Latvia, maternity care institutions had to implement restrictions, which varied depending on the maternity care institution, such as prohibit an accompanying person in birth, cancel maternity preparation courses, place women with upper respiratory tract symptoms in airborne infection isolation rooms until the infection with COVID-19 is ruled out (Riga Maternity Hospital, 2020). Pregnant women are already more susceptible to infections due to the immune system natural suppression (Jamieson, Theiler, & Rasmussen, 2006). Furthermore, both the pregnancy itself and the lack of information about the effects of COVID-19 on the foetus can result in increased psychological stress and have a negative effect on pregnancy, childbirth and postpartum stages (Traylor, Johnson, Kimmel, & Manuck, 2020). Elevated stress levels can increase the risk of postpartum blues and depression, difficulties bonding with the newborn, increased negative feelings towards the baby (Bell, Assistant, Andersson, & Senior, 2016), complications with breastfeeding (Beck & Watson, 2008) and also fear of future deliveries. Therefore, the objective of this study was to compare childbirth and the early neonatal period experience for mothers before and after the state of emergency was declared in Latvia on March 12, 2020 due to the COVID-19 pandemic. As many efforts to protect the medical staff and patients from the infection with COVID-19 were made, we hypothesized that the distress caused by the pandemic as well as maternity care institutions restrictions directed at reducing the transmission rate could be associated with lower assessment of childbirth and the early neonatal period experience for mothers.

Literature Review

Increased levels of stress during pregnancy and childbirth have been recognized to have a negative effect on both pregnancy outcomes as well as mental health of the mother post delivery. Research shows that stressful changes in life during pregnancy are associated with poorer pregnancy outcomes (Williamson, Le Fevre, & Hector, 1989), higher rates of instrumental deliveries (Romero-Gonzalez, Caparros-Gonzalez, Gonzalez-Perez, Coca-Arco, & Peralta-Ramirez, 2019) as well as can have a significant contribution in development of postpartum mood disorders (Kingston, Tough, & Whitfield, 2012). Elevated levels of stress during labour also have been shown to affect the mother's mental health and have been associated with increased risk for development of childbirth-related posttraumatic stress disorder (Chan et al., 2020). Such disorder can further

lead to problems of maternal bonding and breastfeeding of the newborn (Dekel, Thiel, Dishy, & Ashenfarb, 2019).

It is not surprising, that in recent studies also the COVID-19 pandemic has been shown to have an adverse effect on the pregnancy, childbirth and postpartum period. Several studies have shown association between the pandemic and poorer antenatal care - lower number and delay of antenatal visits (Temesgen, Workie & Dilnessa, 2020; Goyal et al., 2020). Since the outbreak of COVID-19, research has been done to assess the effects on maternal mental health. Elevated depression, anxiety and post-traumatic stress disorder symptoms have been reported among women who gave birth during the COVID-19 pandemic (Wu et al., 2020; Ostacoli et al., 2020; Marino-Narvaez, Puertas-Gonzalez, Romero-Gonzalez, & Peralta-Ramirez, 2020).

The research on women's experience of childbirth during the COVID-19 pandemic is rather scarce. One research showed that childbirth during the COVID-19 pandemic is associated with higher perceived stress levels and poorer quality of care during delivery (Marino-Narvaez et al., 2020). Another research also showed that women delivering during the COVID-19 pandemic had a significantly higher acute stress response than the sociodemographically matched control group. Furthermore, it was shown that higher acute stress response during delivery is associated with elevated post-traumatic stress disorder symptoms and worse maternal bonding with the infant (Mayopoulos et al., 2021).

The COVID-19 pandemic as a stressor affects not only the women giving birth, but also the healthcare professionals providing care during delivery. The pandemic has been associated with higher levels of distress in health workers especially in those who work with COVID-19 positive patients (Babore et al., 2020). This in turn might have an impact on the women's experience of childbirth, as high levels of stress, burn-out and depressive symptoms can affect a health professional's ability to provide high quality of care (Koinis et al., 2015).

In addition to the stress from not knowing the implications of the new disease, the women giving birth during pandemic may also be negatively impacted by public health actions, such as limitations for accompanying persons to participate in childbirth and overall social distancing. It has been shown that the father of the child can provide emotional support during delivery and postpartum (Firouzan, Noroozi, Mirghafourvand, & Farajzadegan, 2018).

Methodology

Participants and setting

A total of 537 women participated in a cross-sectional postnatal online questionnaire study. Women were identified in the postnatal period and offered

to enter the study. Those who agreed to join completed the questionnaire via an online survey tool. The inclusion criteria were to be of legal age (at least 18 years old), to be able to read and write in Latvian and to have given birth between January 2019 and December 2020 in Latvian maternity care institutions.

All participants were divided into two groups: a research group (women who gave birth after the state of emergency was declared in Latvia) and a control group (women who gave birth before the state of emergency in Latvia).

Instruments

First of all, sociodemographic (age, level of education, place of residence, etc.) data was obtained from the participants, as well as obstetric variables (gestational age at birth, delivery mode, number of births, complications, participation of a support person, use of epidural anaesthesia, etc.) and the early newborn period (admission to neonatal intensive care unit). Secondly an evaluation was conducted using evaluation instruments described below.

Childbirth experience questionnaire (CEQ)

The CEQ was translated and adapted from English to Latvian. The CEQ has 21 questions assessing four main domains of childbirth experience (Dencker et al., 2010). Women's responses for 18 from the 21 statements are rated on a 4-point Likert Scale. Questions about labour pain, sense of control and security are assessed with visual analogue scales (VAS), see Table 1. The higher the score, the better the birth experience. Ratings of negatively worded statements are reversed.

Table 1 Childbirth Experience Questionnaire (CEQ) Domains and Included Items

Domain	Items
<i>Own capacity</i>	<ul style="list-style-type: none"> - Labour and birth went as I had expected. - I felt strong during labour and birth. - I felt capable during labour and birth. - I was tired during labour and birth. - I felt happy during labour and birth. - I felt that I handled the situation well. - As a whole, how painful did you feel childbirth was? * - As a whole, how much control did you feel you had during childbirth? *
<i>Professional support</i>	<ul style="list-style-type: none"> - Both my partner and I were treated with warmth and respect. - My midwife/doctor devoted enough time to me and my partner. - My midwife/doctor kept me informed about what was happening during labour and birth. - My midwife/doctor understood my needs and listened to me. - I felt very well cared for by my midwife/ doctor.

Perceived safety	<ul style="list-style-type: none"> - I felt scared during labour and birth. - My impression of the team's medical skills made me feel secure. - I have many positive memories from childbirth. - I have many negative memories from childbirth. - Some of my memories from childbirth make me feel depressed. - As a whole, how secure did you feel during childbirth? *
Participation	<ul style="list-style-type: none"> - I felt I could have a say in deciding my birthing position. - I felt I could have a say in the choice of pain relief.

* VAS-scale with anchors.

We also included questions about the early newborn period, which is defined as age 0-6 days, to supplement the results obtained from the CEQ. The section about the early newborn period included 9 statements with a response format of a 4-point Likert scale, see Table 2.

Table 2 Early Newborn Period Section of the Questionnaire

Items
<ul style="list-style-type: none"> - I felt safe and aware of my newborn's health condition when I checked out of the maternity institution. - I was aware of how to take care of my baby, signs to pay attention to and situations when I should seek medical help. - I had access to medical support for my baby at any time of the day should the need arise. - I had access to breastfeeding support in the maternity institution as well as at home. - I felt increased tension and stress levels in the early newborn period. - I was completely satisfied with the medical care my newborn received in the maternity institution. My opinion and concerns about my child's health were heard and taken into account by the medical staff (GPs, nurses and the hospital staff). - I have a lot of positive memories from the early newborn period. - I have a lot of negative memories from the early newborn period.

Ethics

All participants voluntarily entered the study. Informed consent was obtained. Anonymity and confidentiality of the data obtained was ensured. The protocol was approved by the Riga Stradins University (RSU) Research Ethics Committee (reference code 6-1/13/2020/9).

Statistics and Data Analysis

The data was analysed using IBM SPSS for Windows, Version 26.0. Continuous variables are expressed as the mean \pm standard deviation (SD), while categorical variables are expressed as frequency and percentage. Sociodemographic and obstetric characteristics were compared between groups

using Student t tests (means) for normally distributed continuous variables and chi-squared tests (%) for categorical variables. Mann - Whitney U test was used to compare skewed continuous variables and nominal variables. P value < 0.05 was considered as statistically significant. A 95% confidence level was used.

Research Results

A total of 537 women fulfilled the inclusion criteria and were divided into two groups (research group n=311 and control group n=216) based on whether they gave birth before or after the state of emergency due to the COVID-19 pandemic was declared in Latvia. The key sociodemographic and birth related factors have been summarized in Table 3. Overall, there were no statistically significant differences between two groups based on sociodemographic and obstetric factors, except for planning and actual participation of a support person in childbirth. In the research group, a statistically higher proportion of women during pregnancy were planning for a support person to participate in childbirth if compared with the control group (88.4% vs 80.1%; Pearson Chi-square value 7.101, p=0.008). Despite that, the actual participation rate of a support person was significantly lower in the research group, compared to the control group (62.7% versus 74.8%; Pearson Chi-square value 8.743, p=0.003). Furthermore, overall women that planned for participation of a support person in childbirth during pregnancy but were giving birth without the participation of a support person (n=94) reported inferior childbirth experience on several accounts if compared with women who planned and had support person participating (n=362). These accounts include the control level of the process (U=14280.50, p=0.016), the level of fear (U=14706.50, p=0.036), the level of how one's choice regarding pain management was taken into account (U=14716, p=0.016) and level of breastfeeding support (U=13681, p=0.002).

If overall childbirth experience and early newborn period experience is compared between research and control groups, then a statistically significant difference is observed in only one aspect out of a total of 30 and that is – that my midwife/doctor understood my needs and listened to me. In the research group the median value of the variable was 4, while in the control group 3 (U=38325.5, p=0.049).

If subgroups of research and control groups based on different obstetric factors are compared, the following results are obtained.

For nulliparous women there is a statistically significant difference in mean ranks of variable - *I was aware of how to take care of my baby, signs to pay attention to and situations when I should seek medical help* (U= 8530, p=0.013) with the research group (n=152) having lower mean rank than the control group (n=134).

Among women who gave birth via caesarean there were statistically significant differences between the research and the control group on several accounts:

- My midwife/doctor devoted enough time to me and my partner (U=1508.50, p= 0.035)
- I felt very well cared for by my midwife/ doctor (U = 1538.00, p= 0.018)
- I have many negative memories from childbirth (U=953.00, p= 0.039)
- Some of my memories from childbirth make me feel depressed (U=934.00, p=0.028)

For the first two aspects the median values were higher in the research group than in the control group, respectively 4 versus 3 and 4 versus 3.5, while for latter two aspects, the mean ranks were lower in the research group, compared with the controls group. Among women who gave birth vaginally there were no statistical differences in the mean ranks of any variables, as well as there were also no statistical differences among multipara women.

Table 3 Summary of Sociodemographic and Obstetric Factors

Factor	Research group (n=311)	Control group (n=226)	P value
Sociodemographic			
- Age	29.51±4.856	29.06±4,782	0.289
- Education			0.442
- Primary	1.3%	2.2%	
- Secondary	32.2%	27.4%	
- Higher	66.2%	70.4%	
Obstetric			
- Perinatal care center			0.832
- Level I	43.4%	45.1%	
- Level II	47.3%	46.9%	
- Level III	9.3%	8.0%	
- Delivery mode			0.514
- Vaginal	80.1 %	82.3%	
- Operative via Caesarean section	19.9%	17.7%	
- Gestational week at birth	39.57±1,477	39.58±1,688	0.500
- Participation of a support person			
- Planned participation	88.4%	80.1%	0.008
- Actual participation	62.7%	74.8%	0.003
- Number of births			0.095
- 1	48.9%	59.6%	
- 2	38.6%	29.3%	
- 3	10.6%	9.8%	
- 4	1.9%	1.3%	
- Admission to a NICU	8.0%	7.1%	0.680

Discussion

This study provides new insight on women's experience giving birth during a global pandemic. We found that during the COVID-19 pandemic, statistically significantly more women planned for a support person's participation in childbirth compared with the control group. This might be explained by distress and fear related to the new pandemic. Recent research shows that due to COVID-19 pregnant women experience increased levels of anxiety (Saccone et al., 2020), which might lead to even changing the birth plan away from delivering in hospital (Moyer, Compton, Kaselitz, & Muzik, 2020). However, due to the state of emergency and subsequent limitations for a support person participation in childbirth, an actual rate of a support person's participation in childbirth was statistically significantly lower than before pandemic. A support person's participation has been shown to be an important factor that contributes to overall childbirth, leading to fewer negative feelings about childbirth experience, shorter labour, lower frequency of both caesarean and instrumental vaginal delivery (Bohren, Hofmeyr, Sakala, Fukuzawa, & Cuthbert, 2013). Assistance provided by a support person facilitates women to feel safe, strong, confident and secure (Bohren, Berger, Munthe-Kaas, & Tuncalp, 2019). This is also supported by our results, which show that women giving birth without the participation of a support person, although they planned for it during pregnancy, have reported inferior childbirth experience with regard to several aspects, including control level of the process, the level of fear, the level of how one's choice regarding pain management was taken into account and the level of breastfeeding support.

Marino-Narvaez et al. in their research found that women who gave birth during the COVID-19 pandemic in Spain reported lower quality of care if compared with women who gave birth before the pandemic (Marino-Narvaez et al., 2020). However, our research shows that despite the elevated proportion of women who had to give birth without the participation of a support person, the overall birth experience and provided care was not significantly inferior for women giving birth during the COVID-19 pandemic if compared with the control group. On the contrary, the women who gave birth during the COVID-19 pandemic reported a higher median value of a variable which accounts for how well the doctor/midwife listened and understood one's needs. This might show that during the COVID-19 pandemic medical personnel involved in the care of labouring mothers, have paid more attention in order to compensate for absence of a support person in childbirth. It may be especially true in case of a more complicated childbirth as our results shows that women who had delivery via caesarean section during the COVID-19 pandemic reported higher median values of both the time allotted to them by doctor/midwife and the level of care provided by doctor/midwife if compared with the respective control group. While in case

of vaginal delivery there were no statistically significant differences between the two groups.

Our results show that not only childbirth experience might be adversely affected by the pandemic, but also the early postpartum period. Nulliparous women reported a statistically significantly lower mean rank of the variable about knowledge of how to take care of a baby, signs to pay attention to and situations when to seek medical help more than nulliparous women in the control group. This could be partially explained by a more scrupulous infectious control, which in turn might limit the time and possibility for healthcare professionals to educate mothers on such aspects.

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SPECIĀLĀ ARTISTISKUMA STILI MĀKSLAS VINGROŠANĀ

The Styles of Special Artistry in Rhythmic Gymnastics

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Abstract. *Rhythmic gymnastics is a high achievement sport that requires athletes to demonstrate maximal abilities of the human body control while performing imaginative and meaningful compositions. With increasing of the technical complexity of the competitive compositions and striving for high results, less attention is paid to performance aesthetics. But at the same technical level during the competition, a decisive role in the gymnasts' performance is given to aesthetics. Patterns in the choice of composition content and gymnasts' appearance and emotional similarities during performance allow concluding that there is a certain style, which can be defined as a special artistry style in rhythmic gymnastics. The aim of the research is to develop theoretical model of special artistry in rhythmic gymnastics, setting the tasks to determine, classify, structure, describe with determined artistic criteria and visualize with artistical images the special artistry styles. To develop the model the method of scientific and special literature analysis, audiovisual source analysis and modeling method were used. The model is mainly relying on C.G. Jung's theory of human perception of the world through universal symbols and the primary archetypes of the collective unconscious. Since mainly women participate in rhythmic gymnastics, the determination of the special artistry styles was based on the women archetypes of Ancient Greece goddesses according to the psychoanalyst prof. J.S. Bolen. To illustrate the styles more than 400 audiovisual materials were researched. As a result, the theoretical special artistry 32-style model in rhythmic gymnastics with two matrices of opposite style expressions consisting of 16 images each was created.*

Keywords: *artistry, composition, rhythmic gymnastics, special artistry style.*

Ievads

Introduction

Neskatoties uz to, ka mūsdienās mākslas vingrošanas attīstībā tiek uzsvērtā tehnikas prioritāte, un vingrotāju sacensību kompozīcijas ietver maksimālo

augstākās grūtības pakāpes tehnisko elementu skaitu, tomēr šī sporta veida skatāmību galvenokārt nosaka izpildījuma izteiksmīgums (Medvedeva, Artemyeva, Sakharnova, Ilyina, 2020). Vingrotājām sacensību kompozīcijas ir jāizpilda tehniski, estētiski un muzikāli virtuozī, vienlaicīgi apvienojot virtuozu tehnisko elementu izpildīšanu un darbu ar priekšmetu ar izteiksmīgumu un muzikalitāti (Gantcheva, Borysova, Kovalenko, 2021).

Pieaugot tehniskajai sarežģītībai, tikai dažas vingrotājas sacensībās spēj panākt kompozīcijas artistisko izpildījumu un izcelt kompozīcijas ideju, demonstrējot mākslas vingrošanai piemītošo izteiksmīgumu un emocionalitāti. Tehnikas izvēršana par prioritāru samazina artistiskuma līmeni, tas raksturīgs gan jaunām vingrotājām, gan arī augstā līmeņa sportistēm (Gorbachova, 2000). Vingrotāju līdzvērtīgs tehniski virtuozs kompozīciju izpildījums apgrūtina sportistu snieguma novērtēšanas procesu sacensībās, tādēļ par kritēriju, kurš ļautu vingrotājai izcelties un sasniegt augstus rezultātus sacensībās, nākotnē varētu kļūt tieši izpildījuma izteiksmīgums (Plyehanova, 1997; Karavatska, 2002). Bet sarežģītība objektīvi novērtēt artistiskumu rada tendenci samazināt izteiksmīgumu vingrotāju sacensību kompozīcijā, kas negatīvi ietekmē arī sporta veida skatāmību un popularitāti kopumā (Medvedeva et al., 2020).

Šī problēma parāda artistiskuma detalizētas izpētes nepieciešamību mākslas vingrošanā, kas, savukārt, sekmētu šī sporta veida sacensību kompozīciju estētiskuma novērtēšanas objektivitātes paaugstināšanos un ieviešanu praksē (Plyehanova, 2003; Medvedeva, 2017). Izpildījuma izteiksmīguma uztvere un novērtēšana ir sarežģīta parādība, kuru nosaka kompozīcijas, vingrotājas un skatītāja mijiedarbība, kas prasa artistiskuma holistisku izpēti un interpretācijas nepieciešamību (Vinken, Heinen, 2020). Šādi sacensību noteikumu papildinājumi varētu ne tikai sekmēt vingrotāju sasniegumu novērtēšanas sistēmas pilnveidošanu, bet arī paaugstinātu sportistu sacensību kompozīciju izpildījuma skatāmību (Shishkovska, 2011). Šo procesu varētu papildus sekmēt estētiskā redzesloka paplašināšana ar vēsturisko un moderno mākslu, treneriem un horeogrāfiem atsakoties no novecojušiem sporta veida standarta uzskatiem par estētiskumu (Gantcheva et al., 2021). Novērotās likumsakarības vingrotāju sacensību kompozīciju satura izvēlē un izpildījumā ļauj secināt, ka pastāv kompozīcijas stils, kas pētījumā tika skatīts kā speciālā artistiskuma stils.

Pētījuma mērķis ir izveidot speciālā artistiskuma stilu teorētisku modeli mākslas vingrošanā, kā uzdevumus izvēršot speciālā artistiskuma stilu noteikšanu, klasificēšanu, strukturēšanu, to aprakstīšanu ar noteiktiem artistiskuma kritērijiem un ilustrēšanu ar mākslinieciskiem tēliem.

Pētījumā turpmāk apskatīti speciālā artistiskuma stili mākslas vingrošanā, vingrotāju izteiksmīgums sacensību kompozīcijas satura izvēlē un izpildījumā. Pētījuma ietvaros veikta speciālā artistiskuma stilu noteikšana, klasificēšana, strukturēšana, to aprakstīšana un ilustrēšana, lai izveidotu speciālā artistiskuma

stilu teorētisko modeli, kuru nākotnē varētu izmantot vingrotāju artistiskuma novērtēšanas procesa objektivizēšanai sacensībās. Speciālā artistiskuma stilu modeļa izveidei pielietota zinātniskās un speciālās literatūras analīzes metode, galvenokārt balstoties uz teoriju par cilvēka pasaules uztveri caur universālo bezapziņas simboliku un arhetipiem. Tā kā mākslas vingrošanā pārsvarā piedalās tikai sievietes, tad speciālā artistiskuma stilu noteikšana tika balstīta uz pētījumiem par sieviešu arhetipēšanu, izmantojot sengrieķu dieviešu tēlus. Speciālā artistiskuma teorētiskais modelis tika veidots ar modelēšanas metodi, stilu ilustrēšanai tika izmantota audiovizuālo avotu analīzes metode.

Speciālā artistiskuma stili mākslas vingrošanas sacensību kompozīcijās *The Styles of Special Artistry in Competitional Compositions of Rhythmic Gymnastics*

Mākslas vingrošanas noteicošā īpatnība ir dažādu mākslas veidu atspoguļošana un spilgta emocionāli kustīga tēla veidošana tehniski sarežģītas sacensību kompozīcijas satura izvēlē un izpildījumā, to reglamentē šī sporta veida sacensību noteikumi. Kompozīciju šajā sporta veidā var uzskatīt par mākslas darbu, kurā vingrotājam jānodemonstrē mākslinieciskais tēls oriģinālā, dinamiskā, izvēlēta muzikālā pavadījuma noteiktā sacensību kompozīcijā (Pristavkina, 1984; Terekhina, Kryuchek, Medvedeva, Zenovka, 2014). Pieaugošā konkurence starptautiskajā vingrošanas arēnā paredz, ka augstākus rezultātus sacensībās sasniegs tās vingrotājas, kuras spēs apvienot augstu sarežģītības un izteiksmīguma līmeni oriģinālo kompozīciju satura izvēlē un izpildījumā (Borisenko, 2000).

Kompozīcijas satura izvēle mākslas vingrošanā ir sarežģīts, daudzpakāpju process, jo tieši sacensību programmu veidošanas tehnoloģijas neievērošana neļauj izveidot oriģinālu un spilgtu kompozīciju. Visizplatītākās kļūdas kompozīcijas satura izvēlē ir muzikālā pavadījuma neatbilstoša izvēle, neracionālā laukuma izmantošana un izvēlēto tehnisko elementu strukturālā vienveidība (Terekhina et al., 2014). Tādēļ bieži sportistes nepieciešamās sacensību prasības izpilda tīri mehāniski, kas raksturo vingrotāju sacensību kompozīciju zemo estētisko vērtību (Gorbachova, 2000). Toties atbildība par kompozīcijas satura izvēli nav tikai trenera vai horeogrāfa pārziņā, bet ir ciešs radošs sadarbības process starp speciālistiem un vingrotājam (Carbinatto, Reis Furtado, 2019).

Izteiksmīguma objektīvas vērtēšanas sarežģītība ir īpaši aktuāla un svarīga sporta veidos ar vizuālu un subjektīvu sacensību rezultātu noteikšanu (Plyehanova, 2003). Vērtēšanas sarežģītība mākslas vingrošanā nosaka

artistiskuma pētīšanas aktualitāti, kas, savukārt, nākotnē ļautu objektīvāk veikt izteiksmīguma novērtēšanu un paaugstināt artistiskuma nozīmi šajā sporta veidā.

Kompozīcijas satura izvēles procesu mākslas vingrošanā veido trīs posmi – sagatavošanas, veidošanas un korekcijas (Karpenko, Savelyeva, Rumba, 2009; Terekhina et al., 2014). Sagatavošanas posmā veic vingrotājas sagatavotības un individuālo īpatnību novērtēšanu un apkopo iegūto informāciju. Kompozīcijas sastādīšanas posmā tiek izvēlēts muzikālais pavadījums un rādīts kompozīcijas tēls (Terekhina et al., 2014; Carbinatto et al., 2019). Tēla veidošana kustību mākslā ir dinamisks process, kurš sākas ar iedvesmu, idejas un tēla rašanos apziņā, turpinās radošajā darbībā un noslēdzas ar mākslas darba, t.i. kompozīcijas, izveidošanu, kuras mērķis ir radīt viegli uztveramu objektu, lai izraisītu emocionālo iespaidu skatītājos. Pats tēls ir mākslas darba rezultāts, ko skatītājs emocionāli uztver un piedzīvo (Spalva, 2004; Carbinatto et al., 2019).

Vingrotājai ir jāatveido kompozīcijas iecere un jārada mākslinieciskais tēls saspringtajos sacensību apstākļos, tādēļ korekcijas posmā tiek panākts individualizēts kompozīcijas optimāls tehniskā un artistiskā izpildījuma variants (Terekhina et al., 2014; Carbinatto et al., 2019).

Vadošo mākslas vingrošanas speciālistu pētījumu analīze (Pristavkina, 1984; Plyehanova, 1997; Karavatska, 2002) ļauj secināt, ka sacensību kompozīciju satura izvēles un izpildījuma stila jautājums mākslas vingrošanā ilgu laiku ir aktuāls, bet nav pietiekami izpētīts. Minētās autores savos pētījumos teorētiski un praktiski izšķīra vairākus kompozīcijas stilus mākslas vingrošanā, bet nav vienota viedokļa par to veidiem, kas norāda turpmākas izpētes nepieciešamību.

Pētījumā tika izšķirti 3 tipveida sacensību kompozīciju izpildījuma stili – tehniskais, kompozicionālais un artistiskais, ar prevalējošiem tehnisko, kompozicionāli saturisko un muzikālo novirzienu attiecīgi (Pristavkina, 1984). Pamata stiliem papildus tika noteikti vairāki paveidi, t.i., tehniski artistiskais stils kā tehniskā stila variācija; kompozicionāli tehniskais stils kā kompozicionālā stila variants; kā arī varonīgi dramatiskais un liriski romantiskais artistiskā stila paveidi. Citā pētījumā arī tika izdalīti 3 kompozīciju pamata stili, t.i. sportiskais, dejiskais un etīdes tēlainais, kuri savā starpā atšķiras pēc izteiksmīguma izteiktības pakāpes, tai pieaugot stilu minētajā secībā (Plyehanova, 1997). Pētījumā līdzīgi iepriekšējiem tika noteikti 3 tipiskie stili – jautrais, liriskais un varonīgais (Karavatska, 2002). No iepriekšminētā var secināt, ka autoru piedāvātajās stilu klasifikācijas nav pietiekami strukturētas un pārskatāmas, tādēļ, nav viegli saprotamas un uztveramas. Izstrādātie stili nav apkopotī vienotā sistēmā, kurai būtu teorētiskā un praktiskā nozīme mākslas vingrošanā. Tādēļ ir nepieciešama strukturēta, viegli pārskatāma un uztverama speciālā artistiskuma stilu modeļa veidošana.

Pasaules uztveres konceptā (Jungs, 1996) galvenais uzsvārs tiek likts uz bezapziņu un arhetipiem. Cilvēka bezapziņā rodas idejas un stimuli, kuri raksturīgi dažādiem cilvēkiem un tautām, izpaužas to mitoloģijā, ticējumos un paražās, pat ja viņi nekontaktē savā starpā. Tas ļauj secināt, ka kolektīvai bezapziņai un tās veidojumiem – arhetipiem, ir raksturīgs universālums un visuresamība, un tiem piemīt instinktīva, emocionāla, sociāla un bipolāra struktūra, arheoloģisks un vēsturisks pamats. Tomēr arhetipu koncepta izklāstījums rada nepieciešamību to papildināt ar citiem pētījumiem (Spalva, 2004; Bolen, 2020).

Tā kā mākslas vingrošanā pārsvarā piedalās tikai sievietes, bet arhetipi (Jungs, 1996) ietver vīrišķā un sievišķā pretnostatījumu, speciālā artistiskuma stili pētījumā tika balstīti uz sieviešu pirmtēliem. Šie tēli (Bolen, 2020) tika izšķirti, pamatojoties uz sengrieķu mitoloģiju, akcentējot 7 unikālo sengrieķu dieviešu tēlus. Tie pārstāv noteiktus intuitīvi uztveramus sieviešu arhetipus un spilgti atspoguļo to rakstura īpašības. Pētījumam tika atlasīti 4 arhetipi, kur katram ir divas pretējās izpausmes – „Jauna meitene”, paklausīga mātes meita, kura vēl neapzinās savu būtību, vēlmes un spēkus vai jūtīga, dziļa un intuitīva „Dvēseļu pavēlniece”; „Jutekliska skaistule”, kas bauda mīlestību, skaistumu un ir radoša vai „Neizvēlīga uzdzīvotāja”; „Dāsna saimniece”, kura nodrošina fizisko un garīgo atbalstu citiem vai „Nomācošs upuris”, cietēja un manipulētāja; „Drošsirdīga aizstāve”, kura patstāvīgi sasniedz mērķus un aizstāv vājākos vai nejūtīga un atriebīga „Konkurējošā pretiniece” (Bolen, 2020).

Apkopojot informāciju par emocionālo tēlu, tēla un pirmtēla jēdzieniem, tika pamatots tā svarīgums un nozīme kustību mākslā un noteikts, ka emociju iespaidā mākslinieka apziņā veidojas pirmtēls, kas materializējas un radošā procesa gaitā kļūst par uztveramu objektu – māksliniecisko tēlu. Tas var būt spilgts, unikāls, neatkārtojams, mūžīgs, kā arī spējīgs izsaukt spēcīgu emocionālu pārdzīvojumu skatītajos (Spalva, 2004).

Balstoties uz iepriekšminēto autoru pētījumiem var secināt, ka speciālā artistiskuma stiliem jābūt viegli uztveramiem un saprotamiem bezapziņas līmenī jebkuras kultūras un tradīciju kontekstā un ilustrētiem ar sabiedrībā pieņemtiem, viegli atpazīstamiem un uztveramiem mākslinieciskajiem tēliem. Tātad nepieciešams veidot universālu un daudzšķautņainu speciālā artistiskuma stilu teorētisku modeli mākslas vingrošanā.

Metodoloģija *Methodology*

Tā kā pētījuma mērķis ir speciālā artistiskuma stilu teorētiskā modeļa izveidošana mākslas vingrošanā, galvenā uzmanība tika pievērsta teorētiskajiem

konceptiem par cilvēka pasaules uztveri caur bezapziņas un universālo arhetipu prizmu (Jungs, 1996); sieviešu arhetipiem (Bolen, 2020) un kustību mākslas tēlainībai (Spalva, 2004), ka arī mākslas vingrošanas kompozīciju stiliem (Pristavkina, 1984; Karavatska, 2002; Plyehanova, 2003) un kompozīcijas veidošanai šajā sporta veidā (Karpenko et al., 2009; Terekhina et al., 2014; Carbinatto et al., 2019). Lai noteiktu artistiskuma izpētes un novērtēšanas objektivizēšanas nepieciešamību mākslas vingrošanā, tika veikta vadošo šī sporta veida speciālistu zinātniskās literatūras izpēte un teorētiskā analīze (Plyehanova, 1997, 2003; Gorbachova, 2000; Karavatska, 2002; Shishkovska, 2011; Medvedeva, 2017; Medvedeva et al., 2020; Vinken et al., 2020; Gantcheva et al., 2021).

Meklējot darbus elektroniskajā disertāciju bibliotēkā www.dissercat.ru pēc atslēgas vārdiem „mākslas vingrošana” (kr. val. „художественная гимнастика”), atrasti 467 rezultāti, no kuriem dziļāk tika pētīti 7. Pētījumā tika izmantoti raksti no elektroniskās zinātniskās bibliotēkas „КиберЛенинка” (www.cyberleninka.ru), kuri tika meklēti pēc atslēgas vārdiem „kompozīcija mākslas vingrošanā” (kr. val. „композиция в художественной гимнастике”), kā arī apskatīti aktuālie pētījumi mākslas vingrošanā par artistiskumu un kompozīciju zinātniskajā žurnālā „Science of Gymnastics Journal”, no kuriem dziļāk tika analizēti 6 pētījumi.

Speciālā artistiskuma stilu teorētiskā modeļa izveidošanai mākslas vingrošanā pētījumā tika pielietota modelēšanas metode (Boerner, Boyack, Milojevich, Morris, 2012). Pētījuma speciālā artistiskuma stilu māksliniecisko tēlu ilustrēšanai tika izmantota audiovizuālo avotu analīzes metode – kopumā tika izpētīti vairāk nekā 400 avoti – baleti, mūzikli, filmas un animācijas filmas.

Pētījuma rezultāti

Results

Pētījumā jēdzienu „speciālais artistiskums” darba autori definē kā mākslas vingrošanas sacensību kompozīcijas izteiksmīgam izpildījumam nepieciešamo artistisko kritēriju kopumu, kurš ietver kompozīcijas saturu, izpildījumu un vingrotājas artistiskās kompetences 4 komponentu kontekstā – tehniskās, mākslinieciskās, kompozicionālās un muzikālās. Komponentes tika noteiktas, balstoties uz M.V. Pristavkinas izpētes rezultātiem.

Mākslas vingrošanas speciālisti pētījumos norāda uz kompozīcijas stilu kā vienu no svarīgākajām komponentēm kompozīcijas veidošanā un izpildījumā (Karpenko et al., 2009; Terekhina et al., 2014) un izdala stilu paveidus (Pristavkina, 1984; Plyehanova, 1997; Karavatska, 2002). Analizējot vingrotāju sacensību kompozīcijas saturu un izpildījumu, ir nepieciešams akcentēt stilu, jo tikai visu kompozīcijas elementu un muzikālā pavadījuma idejiska apvienošana

ļauj uztvert kompozīciju kā vienotu veselumu (Plyehanova, 1997), piešķirot tai estētisko vērtību.

Speciālā artistiskuma stilu teorētiskais modelis pētījumā tika galvenokārt balstīts uz konceptu par cilvēka bezapziņas pasaules uztveri caur universāliem arhetipiem, to polāro dabu (Jungs, 1996) un uz sieviešu 7 pirmtēliem (Bolen, 2020), no kuriem pētījumam tika aizgūti 4 – dievietes meitenes Persefones, mīlestības un skaistuma dievietes Afrodītes, auglības un mātišķuma dievietes Dēmetras un medību un Mēness dievietes Artemīdas pirmtēli, ņemot vērā konceptu par mākslinieciskā tēla pastāvēšanu un definīciju kustību mākslā (Spalva, 2004).

Pētījumā speciālā artistiskuma stili tika klasificēti pēc vingrotāju darbības motīva, formas un atbilstības dabas stihijām. Klasificējot stilus pēc vingrotāju darbības motīva kā kompozīcijas idejas un arhetipa, izvēloties sacensību kompozīcijas saturu un izpildot to sacensībās, pētījumā tika izdalīti 4 motīvi, ko raksturo 4 izvēlēto unikālo sengrieķu dieviešu pirmtēli – Persefone, Afrodīte, Dēmetra un Artemīda un tiem atbilstošie, pētījumā noteiktie arhetipu un to ēnu tēli – Meitene, Skaistule, Upuris un Aizstāve.

Meitenes motīvu pētījumā raksturo ievainojamā dieviete jauna meitene, mātes meita Persefone, kurai raksturīga pakļaušanās citu gribai un pasivitāte attiecībās, bet no otras puses – intuīcija un savas dvēseles dziļumu izpratne. Meitenes arhetipa izpausmē Persefone ir jauna meitene un mātes meita, bet arhetipa ēnā viņa ir aizdomīga, pārlieku emocionāla un ietekmējama sieviete ar nerātņu dabu. Skaistules motīvu pētījumā raksturo mīlestības un skaistuma dieviete Afrodīte. Šīs dievietes arhetips ietver sevī mīlestības, skaistuma un jutekliskuma radošo baudītāju, kas rīkojas kaislīgi un kareivīgi, bet arhetipa ēnā dieviete ir neizvēlīga uzdzīvotāja, kuras uzvedība ir uzbrūkoša. Upura motīvu pētījumā raksturo ievainojamā auglības un mātišķuma dieviete Dēmetra. Kā arhetips Dēmetra ir dāsna māte, apgādātāja un saimniece, kura nodrošina barošanu un rūpes par citiem, bet ēnas izpausmē dieviete ir nomācošā cietēja, upuris un manipulētāja. Aizstāves motīvu pētījumā raksturo jaunavīgā medību un Mēness dieviete Artemīda. Dieviete kā arhetips sevī iemieso pret mīlestību nejutīgu un neatkarīgu sievieti, varonīgu palīdzi un aizbildni, kura koncentrējas uz sevis izvēlēto un izvirzīto mērķu sasniegšanu, aizstāvot citus, bet arhetipa ēnā tā ir emocionāli distancēta, aukstasinīga, nežēlīga un atriebīga pretiniece un feministe (Bolen 2020).

Speciālā artistiskuma stili pētījumā tika klasificēti pēc vingrotāju darbības formas. Par pamatu tam tika izmantoti stilu raksturojumi – jautrs, lirisks un varonīgs (Karavatska, 2002), kuri tika papildināti ar kareivīgo kā varonīgā pretstatu. Tādejādi formu raksturo pretējie pāri – jautrā / nerātņā, kareivīgā / uzbrūkošā, liriskā / nomācošā, varonīgā / atriebīgā.

Stili tika klasificēti arī pēc to atbilstības dabas stihijām, pamatojoties uz to intuitīvo uztveri (Jungs, 1996). Gaisa stihiju raksturo vieglums, jautrība, spēja pielāgoties, nepastāvīgums, brāzmainums; uguns stihiju – dinamiskums, kaislīgums, drosmīgums, agresivitāte, karstasinīgums, spītīgums; ūdens stihijai atbilst nosvērtība, pacietība, jutīgums, aizdomīgums, aizkaitināmība, ievainojamība; un zemes stihijai – uzticamība, pastāvība, praktiskums, skopums, cietsirdīgums. Rezultātā pētījumā jautrā / nerātnā darbības forma tika attiecināta uz gaisa stihiju; kareivīgā / uzbrūkošā forma atbilst uguns stihijai; liriskā / nomācošā forma tika attiecināta uz ūdens stihiju; un varonīgā / atriebīgā forma atbilst zemes stihijai.

Speciālā artistiskuma stili pētījumā tika strukturēti ar 32 stilu teorētiskā modeļa palīdzību, kas ietver 2 binārās matricas ar stilu pretējām izpausmēm, pa 16 stiliem katrā. Speciālā artistiskuma stilu aprakstīšanai un to turpmākas novērtēšanas iespējai mākslas vingrošanā par pamatu tika ņemti noteiktie artistiskuma kritēriji (Shishkovska, 2011) – muzikalitāte, horeogrāfiskums, dejiskums, tēlainība, kustību un emocionālais izteiksmīgums un virtuozitāte, kuri pētījumā tika attiecināti uz kompozīciju, tādejādi paplašinot to nozīmi. Izvēlēto kritēriju saturs tika pamatots (Pristavkina, 1984; Karpenko et al., 2009; Terekhina et al., 2014), izvēloties sekojošus raksturojumus: muzikālā pavadījuma izvēle un ieraksta veidošana; elementu atlase un individualizācija, to sadalījums kompozīcijā; deju soļu iekļaušana kompozīcijā; kompozīcijas stila izvēle; ārējā un iekšējā tēla veidošana; kompozīcijas ieceres atspoguļošana izpildījumā.

Tādejādi, muzikālā komponente tika raksturota ar muzikalitātes kritēriju, kura saturu nosaka muzikālais pavadījums un tā raksturojumi; kompozicionālo komponenti raksturo horeogrāfiskums ar elementu atlasī, individualizāciju un elementu sadalījumu kompozīcijā un dejiskuma kritērijs ar kompozīcijas muzikālā pavadījuma raksturu pasvītīrojošo deju soļu iekļaušana tajā; mākslinieciskā komponente tika raksturota ar kompozīcijas tēlainību, kura saturu veido kompozīcijas stila izvēle, tēla ārējās izpausmes un emocionālā rakstura veidošana, kā arī kustību un emocionālā izteiksmīguma kritēriji; kompozīcijas tehnisko komponenti raksturo virtuozitāte, kas paredz kompozīcijas ieceres atspoguļošanu tehniski nevainojamā izpildījumā un tās muzikālā pavadījuma noteiktā tēla veidošanu sacensību laukumā.

Vieglākai un uzskatāmākai pētījumā noteikto speciālā artistiskuma stilu uztverei tie tika ilustrēti ar mākslinieciskajiem tēliem. Rezultātā Persefones un Meitenes motīvu spilgti raksturo Princeses vai Nerātnes, kā Džuljeta Kapuleti un kā Hārlija Kvīna – arhetipa ēnas aspektā. Afrodītes un Skaistules motīvu raksturo Kinodīvas vai Laupītājas kā Džesika Rebita un Karmena. Dēmetras un Upura motīvu attēlo Saimnieces vai Karjeristes, kā Pelnrušķīte un Melnais

gulbis – arhetipa ēnas izpausmē. Artemīdas un Aizstāves motīvu raksturo Aizbildnes vai Amazones, kā Žanna d'Arka un Vara kalna saimniece.

Tādejādi pētījuma rezultātā tika izveidots teorētiskais 32 speciālā artistiskuma stilu modelis mākslas vingrošanā, kurš ietver divu stilu pretēju izpausmju bināras matricas, katrā 16 stili (1. un 2. tab.), kur katrs speciālā artistiskuma stils tika ilustrēts ar māksliniecisko tēlu emocionālā iespaida pastiprināšanai un turpmākai speciālā artistiskuma stilu novērtēšanas procesa atvieglošanai un objektivizēšanai sacensībās.

1. tabula. Speciālā artistiskuma stilu teorētiskā modeļa 16 stilu arhetipu izpausmes binārā matrica mākslas vingrošanā

Table 1 Special Artistry Style Theoretical Model's 16 Style Archetype Manifestation Binary Matrix in Rhythmic Gymnastics

Motīvs (Arhetips) Forma	Meitene / Persefone (Gaiss)	Skaistule / Afrodīte (Uguns)	Upuris / Dēmetra (Ūdens)	Aizstāve / Artemīda (Zeme)
Jautrā (Gaiss)	Jautrā Meitene	Jautrā Skaistule	Jautrais Upuris	Jautrā Aizstāve
Kareivīgā (Uguns)	Kareivīgā Meitene	Kareivīgā Skaistule	Kareivīgais Upuris	Kareivīgā Aizstāve
Liriskā (Ūdens)	Liriskā Meitene	Liriskā Skaistule	Liriskais Upuris	Liriskā Aizstāve
Varonīgā (Zeme)	Varonīgā Meitene	Varonīgā Skaistule	Varonīgais Upuris	Varonīgā Aizstāve

Sakarā ar speciālā artistiskuma stilu ilustrējošo māksliniecisko tēlu tēmas plašumu, šajā pētījumā tika detalizēti raksturoti tikai divi spilgti speciālā artistiskuma stili – Liriskais Upuris un tam atbilstošais Baltā / Mirstošā gulbja mākslinieciskais tēls un tā pretstats – Nomācošais Upuris un tam atbilstošais Melnā gulbja tēls. Baltā / Mirstošā gulbja tēls – arhetips 1. tabulā izcelts treknrakstā. Tā prototips pētījumā ir princese Odete no P. Čaikovska baleta „Gulbju ezers”. Varone ir liriska, jutīga, maiga, pacietīga, nosvērta, uzticīga, visupiedodoša, un upurē sevi mīlestības vārdā, kas pilnā mērā raksturo Upura motīvu un Dēmetras mātišķo arhetipu un ūdens stihiju. Kompozīcijas muzikalitāti šajā stilā raksturo liriskums, jutīgums, skumjas, nomāktība, emocionālais kritums un plūstošums; kompozīcijas horeogrāfiskums tiek raksturots ar sarežģītību, kustību un pāreju plūstošumu un vijīgumu, pozu noturēšanu un maksimālu elementu amplitūdas izpausmi, un plūstošām, viļņveidīgām kustībām ar bumbu vai figurētiem un vijīgiem lentas zīmējumiem; kompozīcijas dejiskumu raksturo klasiskās dejas un plastiskā izteiksmīguma elementi; kompozīcijas tēlainību – liriskais, upurējošais un maigais tēls un maiga krāsu gamma, monohroma tērpa un priekšmeta kombinācija;

kompozīcijas kustību izteiksmīgums ir daudzkomponents un pilns ar sīkām plastiskām detaļām; kompozīcijas emocionālais izteiksmīgums tiek raksturots kā augsts, jo vingrotājam ar savu mīmiku detaļās jāattaino tēla traģiskums kompozīcijas plūstošajā un nesteidzīgajā izpildījumā; kompozīcijas virtuozitāte arī tiek atzīmēta ar paaugstinātu sarežģītības līmeni, sakarā ar ko ir pieejama tikai nobriedušām, izteiksmīgām vingrotājām ar augstu fizisko un emocionālo spēju attīstības līmeni.

2. tabula. *Speciālā artistiskuma stilu teorētiskā modeļa 16 stilu arhetipu ēnu izpausmes binārā matrica mākslas vingrošanā*

Table 2 *Special Artistry Style Theoretical Model's 16 Style Archetype Shadow Manifestation Binary Matrix in Rhythmic Gymnastics*

Motīvs (Arhetipa ēna) Forma	Meitene / Persefone (Gaiss)	Skaistule / Afrōdīte (Uguns)	Upuris / Dēmetra (Ūdens)	Aizstāve / Artemīda (Zeme)
Nerātnā (Gaiss)	Nerātnā Meitene	Nerātnā Skaistule	Nerātnais Upuris	Nerātnā Aizstāve
Uzbrūkošā (Uguns)	Uzbrūkošā Meitene	Uzbrūkošā Skaistule	Uzbrūkošais Upuris	Uzbrūkošā Aizstāve
Nomācošā (Ūdens)	Nomācošā Meitene	Nomācošā Skaistule	Nomācošais Upuris	Nomācošā Aizstāve
Atriebīgā (Zeme)	Atriebīgā Meitene	Atriebīgā Skaistule	Atriebīgais Upuris	Atriebīgā Aizstāve

Melnā gulbja tēls – Liriskā Upura arhetipa ēna Nomācošais upuris izcelts treknrakstā 2 .tabulā. Tā prototips pētījumā ir balerīna Nina Saijersa, ko attēloja aktrise Natālija Portmane Darena Aronovska filmā „Melnais gulbis”. Varone ir nomācoša, aizdomīga, psihiski ievainojama, pārlietu emocionāla un aizkustināma, kas pilnā mērā atspoguļo Upura motīva un Dēmetras cietējas arhetipa ēnu un ūdens stihiju. Kompozīcijas muzikalitāti šajā stilā raksturo dramatiskums, emocionālais kāpinājums un nomāktība, krasa noskaņojumu maiņa; kompozīcijas horeogrāfiskums tiek raksturots ar sarežģītību, dinamiskumu, biežu kustību un pāreju maiņu un ekspresiju; kompozīcijas dejiskums – ar klasiskās un modernās dejas elementiem; kompozīcijas tēlainība tiek panākta ar dramatiska, nomācoša, spēcīga un pretrunīga tēla izvēli, dramatisku un kontrastainu krāsu gammu, ar lentas dinamiskām, asām kustībām un figurētiem zīmējumiem un ar apla precīzām un plašām kustībām; kompozīcijas kustību izteiksmīgums tiek atzīmēts kā daudzšķautnains un pilns ar spilgtām, dramatiskām un emocionālām plastiskajām detaļām; kompozīcijas emocionālais izteiksmīgums tiek raksturots kā augsts, spilgts, dramatisks, jo vingrotājam ar savu mīmiku jāparāda viss tēla dramatiskums un pretrunīgums; kompozīcijas virtuozitāte arī tiek atzīmēta ar paaugstinātu līmeni un ir pieejama

tikai nobriedušu izteiksmīgu vingrotāju izpildījumam, kurām ir augsts fizisko un emocionālo spēju attīstības līmenis.

Tādejādi var secināt, ka kompozīcijas tehniskais izpildījums, vingrotājas spēja iejusties izvēlētajā mākslinieciskajā tēlā un demonstrēt to sacensībās ļauj ne tikai nodrošināt mākslas vingrošanas kā sporta veida skatāmību, emocionāli iedarbojoties uz skatītāju, bet arī nodrošina spilgtu, neaizmirstamu un vērtīgu mākslas darbu radīšanu.

Secinājumi *Conclusions*

Iegūtie pētījuma rezultāti ļauj secināt, ka mākslas vingrošanā pastāv speciālā artistiskuma stils. Pētījumā jēdzienu „speciālais artistiskums” darba autori definē kā artistisko kritēriju kopumu, kurš nosaka veiksmīgas sportiskās kompozīcijas satura izvēli un izteiksmīgu izpildījumu mākslas vingrošanas sacensībās.

Speciālā artistiskuma stili tika teorētiski noteikti balstoties uz teorētiskajiem konceptiem par pasaules uztveri caur bezapziņas prizmu, arhetipu universālumu un to bipolāro dabu, sieviešu arhetipēšanu un kustību mākslas tēlainību.

Speciālā artistiskuma stili tika klasificēti pēc vingrotāju darbības motīva, kā mākslas darba idejas, formas un atbilstības dabas stihijai sacensību kompozīcijas satura izvēlē un izpildījumā. Stilu motīvus raksturo pirmtēli, to arhetipi un arhetipu ēnas. Vingrotāju darbības formu arhetipu un to ēnu motīvos ataino pretējie stilu raksturojumi – jautra / nerātņa, kareivīga / uzbrūkoša, liriska / nomācoša, varonīga / atriebīga, kuri atbilst gaisa, uguns, ūdens un zemes dabas stihijām.

Speciālā artistiskuma stili tika strukturēti, izveidojot 32 stilu teorētisko modeļus, kas ietver divas stilu pretējo izpausmju binārās matricas pa 16 stiliem katrā, pēc formu, motīvu un stihiju skaita.

Speciālā artistiskuma stili tika aprakstīti pēc noteiktiem artistiskuma kritērijiem – kompozīcijas muzikalitāte, horeogrāfiskums un dejiskums, tēlainība, kustību un emocionālais izteiksmīgums un virtuozitāte, kur katram kritērijam tika noteikts artistiskais saturs.

Speciālā artistiskuma stili tika ilustrēti ar mākslinieciskajiem tēliem no baletiem, mūzikliem, filmām un animācijas filmām. Ar pētījumā noteikto māksliniecisko tēlu palīdzību turpmāk var tikt vērtēti vingrotāju sacensību kompozīciju speciālā artistiskuma stili.

Summary

The results of the study allow concluding that there is a style of special artistry in rhythmic gymnastics. Research authors defined the term „special artistry” as a set of artistic criteria necessary for the successful sport composition creation and expressive execution during rhythmic gymnastics competitions.

The styles of special artistry were theoretically determined based on concepts of world perception through the prism of unconscious, the universality of the archetypes and their bipolar nature, the women archetypization and the imagery of the movement art.

The special artistry styles were classified according to the gymnast action motif and form, as well as style conformity to the basic nature elements, creating and executing competitive composition. Style motifs are characterized by prototypes, their archetypes and archetype shadows. The form of gymnast action in archetypes and their shadows is represented by opposite style characteristics – joyful / pranky, lyrical / depressive, militant / attacking and heroic / vindictive, which correspond to the nature elements of Air, Fire, Water and Earth.

The styles of special artistry were structured to create a theoretical model of 32 styles, which includes two binary matrices of opposite style expressions with 16 styles in each, by number of gymnast action forms, motifs, and nature elements.

Styles of special artistry were described according to artistic criteria – musicality, choreography and dance, imagery, movement and emotional expressiveness and virtuosity of composition, where for each criterion artistic content was determined.

Styles of special artistry were illustrated by artistic characters from ballets, musicals, movies and animated movies. With the help of the artistic characters defined in the study, gymnast competitive composition special artistry styles could be evaluated in the future.

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PREDICTING PERFORMANCE IN SPEED CLIMBING: ACCURACY OF THE FORCE-VELOCITY TEST ON A CYCLE ERGOMETER

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Abstract. *The present study examined the validity of the force-velocity (F-V) mechanical parameters of the lower limbs as a predictors of the competitive performance in junior male speed climbing. The second aim was to evaluate F-V characteristics in competitive speed climbers in the junior male category. Ten junior male speed climbers (age: 18 ± 0.5 years; BH: 174.7 ± 4.5 cm; BW: 66.4 ± 6.6 kg; with mean best climbing time from the competition BCT: 7.29 ± 0.66 s) were participants in the research. All they were participants in the Youth European Cup in speed climbing. F-V characteristics were measured using a cycle ergometer test according to the Vandewalle's protocol. To evaluate of the validity between BCT (criterion) and mechanical parameters (practical measures) from F-V test a standard error of the estimate (expressed as a raw and standardized typical error, TE) and correlation coefficients ($r_{x,y}$) were used. Moreover, the validity of BCT as a potentially predictor of final competition rank (as a criterion for BCT) was evaluated. Additionally the mean value and standard deviation were calculated for all measured variables. Validity of the BCT as a competition place predictor was largely overestimated ($TE=0.73$ and $r_{x,y}=0.81$, $p\leq 0.05$). Accuracy of the BCT prediction for somatic and mechanical variables were very largely error biased. The standardized values of TE for these variables were: $1.93\div 7.25$. The $r_{x,y}$ were in the range of -0.18 to -0.46 . The level of the mechanical variables from the F-V cycle ergometer as a predictors of the BCT in speed climbing may be largely error biased. Application of the cycle ergometer F-V test of prediction BCT values in speed climbing may have low practical value. Moreover, BCT variable may be a poor predictor of the final competition result. Coaches should take these suggestions into account during preparations to speed climbing competitions.*

Keywords: *best climbing time, force-velocity relationship, speed climbing, sprint cycling test, validity.*

Introduction

Power is the product of force and velocity. The power produced during muscular shortening depends on both factors. To obtain the maximal power output of the muscles the force-velocity test (F-V test) can be used. F-V test is based on relationship between frequency of revolutions and braking force and provides information about maximal velocity (V_0) and maximal force (F_0) capabilities. Peak power (PP) is reached at 0.5 of the F_0 and V_0 values. Based on this values, Vandewalle et al. (Vandewalle et al., 1987) proposed the following equation to calculate peak power: $PP = 0.25 * F_0 * V_0$.

In Speed Climbing duration of climbing race is approximately 6 ± 0.23 seconds in male and 8.05 ± 0.36 seconds in female (Shunko & Kravchuk, 2020). While climbing climber have to perform a lot of upper and lower limbs moves (alternately and simultaneously). The major lower limbs' function is push off the holds and to use the friction on the wall (Shunko & Kravchuk, 2020).

Recent studies showed that the main bioenergetic source in speed climbing is the anaerobic lactate system (Krawczyk et al., 2018). Furthermore, some research showed that anaerobic power are factor which may affects the sport results in speed climbing (Krawczyk, Ozimek, et al., 2020). This established a relationship between power capabilities and speed climbing time which allows to assume that tests evaluating force, power and velocity could have practical value in predicting competition results in speed climbing.

There is only a few studies focused on force-velocity capabilities among speed climbers. Important report was made by Levernier et al. (Levernier et al., 2020). In this research a pull-ups test with load at different percentage of body mass was used to obtain upper limbs F-V profile among lead climbers, speed climbers and bouldering climbers. Another study by Krawczyk et al. (Krawczyk, Pocięcha, et al., 2020) described relationships of mechanical (force, velocity and power) parameters of the countermovement jump (CMJ) with best climbing time at national championship competition.

Based on the scientific research analysis there is a gap in the literature about lower limbs F-V profile among speed climbers. The cycle-ergometer F-V test often was used in studies evaluating strength-speed capacities in similar populations of athletes (Chelly et al., 2010; Martin et al., 2003; Nikolaidis, 2012). Literature review showed no previous studies with similar objectives conducted among youth speed climbers. Therefore, one of the aim of this study was to describe F-V characteristic of the lower limbs in youth speed climbers. Moreover, above presented studies showed that the important determinants of climbing time in this discipline are force, velocity and power of the lower limbs. This means that these mechanical parameters measured in cycle-ergometer F-V test may be significantly correlated with climbing time. If so, then such test

could be used as valuable tool in fitness testing procedures among speed climbers. Therefore, the second, and probably more important objective of this study was to establish practical validity of the mechanical parameters of the lower limbs from F-V test as a predictors of sport results at the competition in this discipline.

Material and Methods

Ten (n = 10) speed climbers in Junior Male category took part in this research. All climbers were participants of the IFSC European Youth Cup in speed climbing. Written informed consent was received from all participants or their guardians in case of underage climbers after verbal explanation about purposes of the study and its potential risks. All research procedures were carried out according to the Helsinki Declaration. Participants were 18 ± 0.5 years, with body height (BH) 174.7 ± 4.5 cm; body weight (BW) 66.4 ± 6.6 kg; best climbing time at the competition (BCT) 7.29 ± 0.66 (with CV = 9%).

The F-V test was carried out using the Monark 874E according to the Vandewalle et al. (Vandewalle et al., 1987) protocol. Three maximal 6-s cycling sprinting efforts were performed with three different loads: 5 %, 7.5 % and 10 % of BW.

Prior the test all participants performed a standardized warm-up procedure comprising 5 minutes of cycling. The maximal velocity values for each trial were recorded, which were used to calculate F0 and V0 values. The peak power (PP) was calculated using the following equation: $PP = 0.25 * F0 * V0$. where V0 – maximal theoretical revolution velocity (rev/min) and F0 – maximal theoretical braking force (kg). There was a 4 minutes rest period between each trial.

To realize the main objective of the study, mean values (\bar{x}) and standard deviations (SD) for all variables were calculated. The standardized error of estimation (TE) and correlation coefficients ($r_{x,y}$) were used to estimate the accuracy of the relationship between BCT and mechanical parameters.

Table1 Thresholds and Magnitudes for Standardized TE and Corresponding Validity of Correlations

Standardized TE	Qualitativemagnitude	Validitycorrelation	Qualitativemagnitude
<0.1	trivial	>0.995	excellent
0.1-0.3	small	0.995-0.95	verygood
0.3-0.6	moderate	0.95-0.85	good
0.6-1.0	large	0.85-0.70	poor
1.0-2.0	verylarge	0.70-0.45	verypoor
>2.0	impractical	<0.45	impractical

Moreover, the accuracy of the BCT was assessed as a predictor of final position in the ranking at the competition. The calculations were made using a spreadsheets proposed by Hopkins (Hopkins, 2015).The specific threshold values for TE and $r_{x,y}$ were presented in Table 1.

Results

The obtained results of TE (0.73) and $r_{x,y}$ (0.81) values showed that BCT as a predictor of the final competition rank could have a large error of estimate. The results presented in Table 2 showed that values of majority mechanical measured parameters and somatic features were impractical BCT estimators. Only BH, V0 and PP showed better validity, but with very poor and very large error magnitude. The results indicated in general very poor value all measured variables as a predictors of BCT.

Table 2 Values of Means, Standard Deviation, Correlation Coefficients, Typical Error of Estimate and Qualitative Magnitude for all Variables

variables	\bar{x}	SD	r_{xy}	Qualitativemagnitude	TE	Qualitativemagnitude
BCT [s]	7.29	0.66				
BH [cm]	174.75	4.53	-0.45	verypoor	1.98	verylarge
BW [kg]	66.42	6.63	-0.18	impractical	5.42	impractical
FM [%]	10.61	3.74	-0.14	impractical	7.25	impractical
F0 [kg]	15.27	1.84	-0.29	impractical	3.29	impractical
F0 [kg/kg]	0.23	0.02	-0.26	impractical	3.77	impractical
V0 [rev/min]	238.50	16.63	-0.46	verypoor	1.93	verylarge
PP [W]	913.45	142.73	-0.41	impractical	2.2	impractical
PP [W/kg]	13.73	1.55	-0.46	verypoor	1.94	verylarge

Discussion

The main objective of this study was to evaluate the validity mechanical parameters F-V cycloergometric test as a predictors of sport results in speed climbing at Junior Male category. In general, results of this study showed low estimation accuracy of these parameters, and therefore showed potentially low practical usefulness of this type of F-V test for predicting speed climbing performance. High values of standardized error of estimation (TE) and low values of correlation coefficients ($r_{x,y}$) between mechanical parameters and BCT confirm this conclusion.

To date, there is a few of the research which evaluated power of the lower limbs using a cycle ergometer tests. Available data in this area is not enough basis for reliable conclusions. Krawczyk et al. (Krawczyk, Pociecha, et al.,

2020) study showed that maximal anaerobic power of Wingate Test were not significantly correlated with climbing time among youth speed climbers of both sex. Another Krawczyk et al. (Krawczyk et al., 2019) study showed significant relationship between upper limbs maximal power on Wingate Test and speed climbing performance. Based on the comparison results of present study and previous studies it is hard to state unequivocally what is the value of the practical use of cycloergometric tests in predicting the sport results in speed climbing. Out of three studies, realized in similar protocols the results of two of them showed no significant relationships between parameters from the tests and results of speed climbing competition.

These results suggested that during research among this population, jumping tests (e.g. squat jump and/or countermovement jump) could be more practical. These types of tests have already been widely used during previous research conducted among speed climbers (Krawczyk, Pocięcha, et al., 2020; Krawczyk et al., 2019; Krawczyk, Ozimek et al., 2020).

It has to be mentioned, that maximal anaerobic power, strength and speed capabilities of the lower limbs are not all ingredients determining success and final results in competitive speed climbing. Other factors like technical skills, coordination abilities or mental preparedness have an impact on specific speed climbing performance. During the climbing race climbers are often making run technical errors which leads to decreasing of climbing velocity to zero or even falling of the wall. These mentioned incidents may have strongly influenced the final position in the competition ranking. Nevertheless, achieved climbing time is considered as a significant and important indicator of the specific physical performance preparedness of the speed climber and the training work effectiveness.

The recent research conducted in this area indicate differences between climbing velocity and produced kinetic energy depending on actual position-on the route during climbing (Legreneur et al., 2018, 2019). Consequently the climbing time depends on many kinetic and kinematic factors like mean climbing velocity, ability to accelerate in the spots where holds and steps configuration decreases, climber's velocity, and technical skills.

As mentioned earlier the anaerobic power is a significant factor influencing the level of movement, speed or sprint running velocity (in the case of speed climbing this will be climbing velocity). Therefore it could be hypothesized that force, velocity and power of the muscles involved during climbing significantly may determine the ability to maintain climbing velocity and rapid acceleration in proper spots. The nature of this relationships is still unknown, because there is no research describing the relationships between the results in spectrum of the non-specific tests –tests with movement similar to climbing movements – kinematic and kinetic parameters observed at the route – climbing time – final

ranking at the competition. Describing this phenomenon may enable the identification of the most important and accurate variables or tests related with sport results in speed climbing. This, in turn, may enable the assessment of the effectiveness of sport-specific training regimens and transfer results to specific speed climbing performance.

Based on this study results and recent research in speed climbing there might be a conclude that cycloergometric tests (e.g. F-V test) have poor predicting value in this specific discipline. The results of this study indicated a large errors of estimation using parameters from those type of tests. F-V tests may be a good apparatus to assess training induced changes of the strength – speed performance (Buśko, 2006; Nebil et al., 2014). Furthermore, based on previous studies conducted among speed climbers it may be concluded that the jumping tests, especially in male competitors have a preferable practical value in predicting sports results in speed climbing (Krawczyk, Pociecha, et al., 2020; Krawczyk, Ozimek et al., 2020; Krawczyk et al., 2019).

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EXPANDING THE UNDERSTANDING OF HEALTH AS AN INTANGIBLE GOOD TODAY

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Abstract. *In classical interpretation, health is defined as a subjective right to this intangible good, which is only characteristic of humans. However, it could be evaluated whether health as a relevant interest can be characteristic of any other subject, expanding the existing understanding of health. The modern legal system distinguishes between subjects with different levels of protection of their interests, i.e., the subjects of rights and the subjects of interests. And a trend is observed where health is also recognised as a category characteristic of the subjects of interests, adjusting the former understanding of the concept of health. Thus, by expanding the understanding of health, types of health can be distinguished according to the subject of interests, e.g., health of a legal person, health of a conceived person, etc., adapting the understanding of health to the criteria of the subject of interests. The research aim is to analyse the expansion of the understanding of health and suggest a division of the types of health in accordance with the modern legal system. The following primary research methods were used in the study: analytical, systemic, teleological.*

Keywords: *expansion of the understanding, health, human, legal system, subject of interests, types.*

Introduction

In classical interpretation, health is defined as a subjective right to this intangible good, which is only characteristic of humans. However, nowadays, when the legal system is becoming more nuanced, directions for the expansion of the understanding of health are emerging which do not attribute health exclusively to humans.

From the analysis of the processes in the legal system, a characteristic category is observed for specific subjects of interests, which shows elements of the notion of health. Thus, types of health can be distinguished according to the subject of interests, thus expanding the understanding of health.

The Latvian legal system demonstrates clashes between the legal science, normative regulation and case law concerning the groundwork on the types of health. We need to create a uniform approach to the understanding and types of health, ensuring proper functioning of the legal system.

The research aim is to analyse the expansion of the understanding of health and suggest a division of the types of health in accordance with the modern legal system. The following primary research methods were used in the study: analytical, systemic, teleological.

Literature Review

Literature, laws and regulations and legal practice materials were used in the research process. From the evaluation of the sources, it can be concluded that no comprehensive research on the types of health is found. The sources only outline some groundwork in this direction.

Methodology

Special legal science research methods were used in the research process: the semantic, grammatical, analytical, historical, comparative, systemic, and teleological method.

Discussion

Health as a relevant interest is protected. The legal system distinguishes between subjects with different levels of protection of their interests. Interest is a particular good of the subject, where three types of interest are distinguished: first, legally irrelevant interests, which have no legal protection; second, legally relevant interests, which are protected by law; third, subjective rights, where the legal norm includes significant interests, also creating a legal obligation for another person (Ten Haaf, 2017, pp.1108-1110; Mullins, 2019, p.96; Paul, 2007, pp.720-725; Kelch, 1999). And following this division of interests, subjects of rights and subjects of interests can be distinguished (Ten Haaf, 2017, p.1108). Thus, the specific scope of interests of the subjects of rights are characterized by absolute legal protection, where the legal protection of a previously undefined scope of interests of the subjects of interests depends on the ability to justify the significance of such interests, acquiring a relative character of legal protection. Interests exist independently from the state, where the state chooses which interests to protect (interest theory, Ihering) (Law Insider, 2020, pp.639-640). And it is not implausible that a currently irrelevant interest with time can acquire the character of a legally protected interest, with the change of value criteria in society. Undeniably, health is an important good, which falls within the content of any interest, including subjective rights and relevant interests.

This raises the question – what subjects have interests? First, it is determined that things cannot have interests (Ten Haaf, 2017, p.1115). Second,

criteria for determining the subjects of interests are offered and evaluated – identifiability of the subject, the ability to feel, its conative life, as well as the subject's obligatory emergence in the future if it does not yet exist (Ten Haaf, 2017, p.1114, 1116, 1118, 1119; Campbell, 2017). The analysis of these criteria results in, on the one hand, primary criteria for determining the subject of interests and establishing its legal status (identifiability, emergence at least in the future); on the other hand – additional criteria for weighing the importance of the subject of interests and expanding its legal status (ability to feel, conative life). It can thus be concluded that the subject of interests has no legal status of the subject of rights, and the legal status of the subject of interests is comprised of criteria with rather broad interpretation. Still, the subjects of interests have interests. And it can be evaluated whether health as a relevant interest in this intangible good can be characteristic of any other subject, expanding the existing understanding of health as a subjective right to this intangible good only characteristic of humans.

It is arguable whether a legal person has a relevant interest in health as an intangible good. Until now, a principle has been established that a legal person could not have an intangible good that is only characteristic of a natural person (LR Augstākās tiesas Judikatūras un zinātniski analītiskā nodaļa, 2019, 3.1.pk.; European Court of Human rights, 2011, point 22), and health was consolidated as only characteristic of humans. However, the significance of the prevalent theory that recognises real existence of a legal person and attributes the same qualities to it as to a natural person (Čakste, 2017, 41.lpp.) is nowadays growing. A trend is observed in the legal system where legal entities are more widely recognised as subjects with personality (Mazure, 2014, 103.lpp.; Rozenbergs, 2003; Krimināllikums, 1998, VIII.1.nod.; Krons, 1940; Civillikums, 1992a, 387.p.; Civillikums, 1993a, 1635.p.; Bitāns, 2006). It is also stated that a legal person can also have intangible goods (LR Augstākās tiesas Senāta Civillietu departaments, 2019; LR Augstākās tiesas Senāta Civillietu departaments, 2008; LR Augstākās tiesas Judikatūras un zinātniski analītiskā nodaļa, 2019, 3.1.pk.), only the understanding of intangible good of a natural and legal person is different (LR Augstākās tiesas Judikatūras un zinātniski analītiskā nodaļa, 2019, 3.1.pk.; European Court of Human rights, 2011, point 22). Also, intangible goods of legal persons have already been discussed in the legal science as having the characteristics of the criterion of health –as an effective course of all processes, i.e., achieving goals and wellbeing of employees in the work environment (Xenidis & Theocharous, 2014, pp.563-565). Thus, a trend is observed promoting the recognition of health for legal persons as well, adapting the understanding of health to the principle of a legal person. The health of a legal person is defined as its internal organisational functioning, which also affects the wellbeing of its employees, as well as the ability to undertake the

civil obligations, to develop and reach its goals in society. Despite the fact that a legal person is the subject of rights in civil-law relations, it is characterised by health as a relevant interest of a subject of interests, which is not yet secured in the normative regulation.

Traditionally, health is understood as an intangible good characteristic of humans. However, this understanding is narrowed down by attributing health to a specific period of the person's development, i.e., from the person's birth until their death. Such an approach is justified by the fact that a person's legal capacity appears at birth, and legal relevance appears by mere fact of birth, which is proven by the registration of the fact in the registry of births (Civillikums, 1993a, 1406.p.; Torgāns et al., 1998, 20.lpp.; Civil Code, 1804, a.16; Civiltāvokļa aktu reģistrācijas likums, 2012, V nod.; LR Augstākās tiesas Senāta Administratīvo lietu departaments, 2006; LR Administratīvā apgabaltiesa, 2007); and legal capacity ends with death – the death of the brain (Kārtība, kādā veicama smadzeņu un bioloģiskās nāves fakta konstatēšana un miruša cilvēka nodošana apbedīšanai, 2007, 2.-7.pk.) or presumption of death, when the person is legally declared dead (Civillikums, 1993b, 377., 378.p.; Civilprocesa likums, 1998, 286.p.2., 3.d.). Thus, health is only attached to the legal capacity period of the person as a subject of rights rather than the person's entire period of life.

However, there is a period of a person's life when health is not directly attributed to a person in a legal sense. This is the situation of a conceived but yet unborn person ("nasciturus" – "that shall hereafter be born" (Grimm, 2003, 66 s.), "conceptus" – "conceived" (Sanfillipo, 2002, 38 s.)). A person is considered to be conceived from the fusion of gametes until the human being is born, when the baby has fully detached from the mother's flesh, creating parallels with natural appearance of fruit at the moment of detachment, where the cutting of the umbilical cord is not an obligatory prerequisite (Mazure, 2014, 66.lpp.; Balodis, 2007, 74., 75.lpp.; Kennedy & Grubb, 1998, p.190; Larenz & Wolf, 1997, S.123; Civillikums, 1992b, 856.p.). Ambiguity lies in the following circumstance. On the one hand, a conceived human being is not recognised as the subject of rights because this human being does not have a legally recognised legal personality in a broad sense (Kennedy & Grubb, 1998, p.190). On the other hand, however, some rights of a conceived person are still protected (for example, a conceived person has a recognised capacity to inherit (Civillikums, 1992a, 386.p.), parents can appoint guardians for their expected children in a testament (Civillikums, 1993b, 223.p.1.d.) etc.), but the normative regulation does not specify or give a general approach – what type of rights are protected and what the scope of this protection is.

Nowadays, a trend is observed in the change of approach regarding the connection between a conceived person and health. On the one hand, a

conceived person at this point is considered an integral part of the mother's body until detachment, because substances required for sustaining life and development are received through the mother, making the conceived person completely dependent on the expectant mother (Kennedy & Grubb, 1998, p.189, 193). On the other hand, the legal science sees an increasingly convincing opinion that a conceived person is not to be seen as part of the expectant mother's body. Two main arguments are made: 1) a conceived person is genetically unique (McHale, Fox, & Murphy, 1997, p.705; Liholaja, 2004, 28.lpp.) and thus different from the expectant mother's genetic characterization; 2) unlike an expectant mother's body part, the embryo develops into a being which is able to exist independently, i.e., the "potentiality argument" (J.Harris) (Liholaja, 2004, 28.lpp.; Sīlis, 2006, 106.lpp.). Thus, premises are found for the expansion of the understanding and scope of the protection of rights of a conceived person.

Considering that a conceived person is not a legally irrelevant fact (Schulman, 2013, p.11, 12), attempts have been observed to recognise health as characteristic of a conceived person too. Two approaches emerge. First, the protection of the rights of a conceived person is included in the legal personality of their parents (Robinson, 2018, p.25, 26; Campbell, 2017) where the health of a conceived person is defined as a protected interest of the parents. Second, the health of a conceived person is valued as an independent protected interest where the protection of the health of a conceived person follows from their right to life, considering the close interrelation, albeit with a different scope of the protection of the right to life for born and unborn persons (Eiropas Cilvēktiesību un pamatbrīvību aizsardzības konvencija, 1950, 2.p.1.d.; LR Satversme, 1993, 93.p.; Bundesverfassungsgericht des Deutschlands, 1975; Bundesverfassungsgericht des Deutschlands, 1993). Influenced by these approaches and the opportunities provided by medical science, the normative regulation provides for medical treatment of a conceived person (Ministru Kabinets, 2018; Simič, 2018, p.256, 257), i.e., improvement of the health of a conceived person. Thus, the legal practice attempts to protect the health of a conceived person using derived legal reasoning, supporting the understanding of health as being characteristic of a conceived person as well.

The modern legal system needs to specify and formalise the legal status of a conceived person and the understanding of their health in the context of medical treatment. Although a conceived person is not a subject of rights in accordance with the existing principles of legal capacity, still they correspond to the features of a subject of interests. This is also reinforced by two processes observed in the legal system. First, a future person is discussed, which has not been conceived yet but could be conceived in the future, seeing them as a subject of interests and even trying to protect them in the normative regulation

(Ten Haaf, 2017, p.1104, 1106; Ten Haaf, 2016, p.1, 14) (e.g., in the German Civil Code when setting limits for proxyconsent to sterilisation of a patient, the interests of a yet unconceived person are also taken into account (Civil Code, 1896, § 1905(1)). Second, an opinion has been expressed that following the principle of symmetry of logic (Dmitriev et al., 2006, s.130) one criterion needs to exist which can be used to determine the moment of emergence and termination of a person as a subject of rights. If the criterion used to determine the death of a person is brain death (Kārtība, kādā veicama smadzeņu un bioloģiskās nāves fakta konstatēšana un miruša cilvēka nodošana apbedīšanai, 2007, 2.-7.pk.), then the beginning of life should be the moment when the brain starts functioning, i.e., at the 6th week of embryonic development (Apinis, 1998, 732., 733.lpp.), which can be medically observed. And the health possessed by the conceived person is to be valued as an independent relevant interest of the subject of interests. If we take into account that according to the direction of implementation of health, a person's health is divided into internal health, i.e., the ability to perform the function of life and the bodily and mental functions medically related to it; and external health, i.e., the ability to socialise and individually fulfil oneself (Mazure, 2020, p.45), then a conceived person can only have internal health, adapting the understanding of health to the principles of a conceived person. Thus, the health of a conceived person can be defined as proper functioning of the cells, tissues, and organs, which ensures its viability.

When evaluating the understanding of health, it can be found that nowadays health is also explained from the point of view of the interests of society, recognising health as a category characteristic of society. Considering that society in general can have interests and even rights, the sense of public health is also used, which denotes the health of society (Paul, 2007; Kramer, 2016; Atbrecht, Higginbotham, Connor, & Ellis, 2017; Müller, Ganten, & Larisch, 2014, S.A1900; Shevchenko, 2004, s.267). Thus health is understood not only as a private good characteristic of a specific individual subject, but also as a public good (Müller, Ganten, & Larisch, 2014, S.A1901; Büchs, & Koch, 2019, p.162; Australian Institute of Health and Welfare, 2014, p.1) characteristic of a specific set of subjects. And as soon as this set of subjects can be identified, it is a recognised category characteristic of this set, which has the features of health.

The definition of public health is derived from the types of public health, which highlight its most significant, interrelated principles. Firstly, according to the scope of the members of the set of subjects, public health is divided into the health of all society (see: Epidemioloģiskās drošības likums, 1997, 3.p.1.d.8.pk.; Svalastog, Donev, Kristoffersen, & Gajovič, 2017) and the health of a specific social group (see: Freeman, 1961, p.278; Welfare, 2019; Lock, Last, & Dunea, 2006; The Ottawa Charter for Health Promotion, 1986), which is characteristic

of at least two subjects in a mutual relationship and describes these subjects as an aggregate. Secondly, according to the direction of implementation of health, public health is divided into internal health of the set of subjects, which is the sum of individual health of separate subjects of the set, and into external health of the set of subjects, because the features of the set are not related exclusively to the features of its members (Freeman, 1961, p.278; Shevchenko et al., 2004, c.273) and in the set of subjects external health describes the quality of its existence and development, as well as the quality of interaction between its subjects. Thus, public health can be defined as the effectiveness of relationships of a social group or the members of the whole society and their mutual interaction, which describes the organisation and development of a social group or society, also including the sum of individual health of the members of specific social groups or the whole society.

Nowadays a direction is observed where health is also recognised as a category characteristic of animals, expanding the existing understanding of health. And the legal evaluation of the idea of animal health is carried out.

On the one hand, based on the normative regulation, an animal is a live physical thing which belongs to an owner or can be an unowned thing, for example, a wild animal (Civillikums, 1992b, 841., 842.p.1.d., 931., 932.-935.p.; Civillikums, 1993a, 2365.p.; Grūtups et al., 1996, 23.lpp.; Rozenfelds, 2000, 96.lpp.; Sinaiskis, 1996, 235.lpp.; Torgāns et al., 1998, 643., 644.lpp.), and an animal cannot be a participant in legal relations and has neither rights nor obligations (Torgāns, 2014, 515.lpp.; Sinaiskis, 1996, 29.lpp.). Thus, normative regulation does not provide for the relevant interest of an animal in health as an intangible good.

However, on the other hand, regardless of the philosophical attempts to single out the superior status of a human being due to its unique ability to value its life and create the future based on reason and free will (Sīlis, 2006, 111., 113., 114.lpp.; Kūle&Kūlis, 1996, 628.lpp.), nowadays the legal meaning of animals is growing. This can be justified as follows. Human beings are not owners of other beings but constitute only one of these beings (Dibifē, 1992, 19.lpp.), and all live things, based on the extended interpretation of natural rights, have the right to equality (Ulpian) (Jevola) and the right to respect (I.Kant) (Kelch, 1999). And special legal categories are growing in the legal systems, i.e., the importance of animals, granting them a certain legal status and valuing it higher than a thing (Kūle & Kūlis, 1996, 631.lpp.; Callicott, 1980, p.311). This is why it is recognised that animals have interests (Campbell, 2017; Jackson, 2013, p.625) and their specific rights can be determined, rather than only regulating human behaviour in society for the protection of animals (Čakste, 19XX, 12., 13.lpp.) – the right not to be a property, the right to life, the right to be respected (Svece, 2019), the right to be free from pain (Kelch, 1999).

Thus, prerequisites are formed in the legal system for the expansion of the understanding of animal status.

The situation is disputable – while the basic principles of the legal meaning of animals are still discussed within the legal system, animal health is already protected by normative regulation. The idea of the protection of animal health is enshrined at the international (Global Animal Law Association, 2018; World Organisation for animal health, 2015, s.6), the European (The European Parliament and of the Council, 2016; The European Parliament and of the Council, 2010), and the national level (Dzīvnieku aizsardzības likums, 1999, Preambula, 5.p.1.d., 2.d.2.pk., 7.p.; Veterinārmedicīnas likums, 2001, 1.p.7.pk., 15.p.1.d., 2.d.; Animal health act, 1981; Animal health protection, 1926; Animal health act, 2014; Animal health act, 2009; Animal health and protection act, 1989; Animal health act, 1988; Animal health act, 2010), having also created for this purpose the World Organisation for Animal Health, which consists of 181 member countries (The World Organisation for Animal Health, 2020) and having recognised from ancient times the existence of one medicine for people and animals, which also includes veterinary medicine (Zinsstag, Schelling, Waltner-Toews, & Tanner, 2011, p.149). Attempts have also been observed to define animal health as an individual condition which includes physical, mental, and social factors and which is aimed at coping with pathologies (Global Animal Law Association, 2018), and where this definition has been created as an analogy to the current definition of human health.

The arguments show that in the modern legal system animals are recognised as subjects of interests where their status already outweighs only the characteristics of a thing but cannot yet be legally equated to the status of the subject of rights, and an animals' relevant interest – health – is crucial to its life and survival. Animal health can be defined as an analogy to human health, adapting this definition to the understanding of an animal. Thus, animal health can be explained as proper functioning of the animal's organs, which ensures its ability to live and the ability to adapt to the ecosystem (to survive), also considering the impact (both positive and negative) of society on the ecosystem.

Here emerges another expansion of the understanding of health, attributing health to the ecosystem. An ecosystem is a functional system which includes populations found within a specific territory and the inanimate environment of their existence (Baldunčiks & Pokrotiece, 1999, 180.lpp.). The terms used in the normative regulation – “rehabilitation of natural resources”, “environmental quality” (Vides aizsardzības likums, 2006, 1.p.15.pk., 2.p.1.d.), “environmental health” (Epidemioloģiskās drošības likums, 1997, 3.p.1.d.1.pk.) – leading to believe that the health of the ecosystem (nature) is implied.

Ecosystem health is related to animal and public health, which manifests in two ways. On the one hand, ecosystem health is separate from animal health

(Huffman, 1992, p.55; Callicott, 1988, p.164), which is a category of separate natural elements; and ecosystem health is separate from public health, where both together form the health of the planet (Prescott & Logan, 2019, p.102; Callicott, 1988, p.164). It is noteworthy that initially in Ancient times nature and society were viewed as a whole, where human beings were part of nature, blending with it; in the Medieval Period, with the consolidation of religion and its principle that nature was created by God, the importance of a human being had grown, and people separated themselves from nature; and nowadays people contrast themselves with nature on the basis of the power of technology available to them (Kūle & Kūlis, 1996, 629., 630.lpp.). Thus, the relationship between nature and society has a growing split, which is confirmed by the historical development of this relationship.

On the other hand, ecosystem health is interrelated with public health where two aspects can be emphasised. First, the health of the ecosystem and society have a mutual effect on each other, where society does certain harm to the health of the ecosystem (Kruse, 2019; Prescott & Logan, 2019, p.99; Zinsstag et al., 2011, p.150, 151, 153; Callicott, 1980, p.325; Bambra, Smith, & Pearce, 2019, p.36; Albrecht et al., 2017; Rapport, 1989; Tountas, 2009, p.191), unlike the ecosystem in relation to society. Thus, society has an obligation to preserve, protect, and restore the ecosystem (Rio Declaration on environment and development, 1992, Pr.7). And second, health of the ecosystem is independent from society (Rapport, 1989), whereas the opposite cannot be stated. It can thus be concluded that ecosystem health has formed and consolidated as a separate and independent category.

To evaluate the legal nature of the ecosystem, it is recognised as a subject of interests, considering its independence. This approach is also indirectly supported by the principle that existence and preservation of the ecosystem is in the interest of the next generations of society (Büchs & Koch, 2019, p.155, 163; Callicott, 1988, p.163). There is a fascinating and unprecedented case when a river as a separate element of nature was even granted the legal status of a subject of rights with a set of rights, obligations and responsibility as recognition of the moral value of that specific river for those specific peoples –the Maori (Te Awa Tupua Act, 2017, s.12; Kurki, 2019, p.1, 3, 11). Although such practice, most likely, is not supported in the legal system, it still supports the growing trend of the legal meaning of the ecosystem in the modern day.

There have been several attempts to define ecosystem health, which is difficult, in order to achieve a comprehensive result. Important principles of attempted definition can be noted, which have been included in the definition of the ecosystem – good condition of the environment (Kruse, 2019), a good functioning system (Burkhard, Müller, & Lill, 2008), activity of the ecosystem, organisation and adaptability according to objective scientific criteria (Lu et al.,

2015; Rapport, 1995), ability to solve problems (Rumpelsberger, 2012, S.18). Thus, ecosystem health can be defined as the quality condition of nature assessed according to science-based criteria, as well as a mutually functioning system of the elements of nature aimed at the existence, preservation, and regeneration of the ecosystem.

Thus, health is understood in a broader sense, not only as an intangible good characteristic of humans, and the reasons for the expansion of such understanding are aimed in three directions – a more nuanced legal understanding of a human being, attribution of human features to social formations, and the growth of the legal meaning of the ecosystem and its elements, which leads to the idea of the types of health.

Research Results and Conclusions

1. Regardless of the fact that health is described as a subjective right to this intangible good characteristic only of humans, nowadays directions for the expansion of the understanding of human health are emerging which do not relate it exclusively to humans. For specific subjects of interests, a category characteristic of them can be established, which has the features of the notion of health.

2. With the legal system becoming more nuanced, types of health can be distinguished according to the subject of interests they describe, thus expanding the understanding of health. When giving a definition of the health of a subject of interests, it has to be adapted to the principles of the understanding of that specific subject of interests.

3. Apart from human health, the following other types of health can be distinguished: 1) health of a legal person; 2) health of a conceived person; 3) public health; 4) animal health; 5) ecosystem health. Each type of health is given a definition, which is included in the suggested draft section of the normative regulation.

The Medical Treatment Law is to be supplemented with Section 3² as follows:

“Section 3².

- (1) The health of a legal person is the functioning of its internal organisation, which also affects the wellbeing of its employees, as well as the ability to undertake the civil obligations, develop and reach its goals in society.
- (2) The health of a conceived person means proper functioning of its cells, tissues, and organs, which ensures its viability.
- (3) Public health is the effectiveness of relationships of a social group or the members of the whole society and their mutual interaction, which

describes the organisation and development of a social group or society, also including the sum of individual health of the members of a specific social group or the whole society.

- (4) Animal health means proper functioning of the organs of the animal, which ensures its ability to live and the ability to adapt to the ecosystem, also considering the impact of society on the ecosystem.
- (5) Ecosystem health is the quality condition of nature assessed according to science-based criteria, as well as a mutually functioning system of the elements of nature aimed at the existence, preservation, and regeneration of the ecosystem.”

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EXPLORATION OF HEALTHY AGEING DETERMINANTS IN BALTIC STATES

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Abstract. *According to the WHO, healthy ageing is characterized by such interrelated determinants as intrinsic capacity, functional ability and environment. An individual's intrinsic capacity is a powerful predictor of the future ageing process and includes 5 areas - cognitive, psychological, sensory, locomotion and vitality. Exploration of these areas can provide necessary information for therapeutic and preventive actions that can be tailored to an individual's needs, priorities and values to support participation and quality of life. The objective of this study was to evaluate and compare healthy ageing determinants of older individuals in the Baltic States. The research was based on the sample of older individuals (50 years and older) from wave 8 of the Survey of Health, Ageing and Retirement in Europe (SHARE) during the period from November 2019 to March 2020. The obtained results indicate a low level/poor results in such determinants as locomotion, sensory, vitality and functional ability (more than 50% of the respondents among the Baltic countries has poor health, various long-term illnesses, limitations in daily activities, suffer from moderate or severe pain, requires help to meet daily needs, etc.), has various behavioral risks, however has higher assessment of cognitive and psychological determinants.*

Keywords: *determinants, environment, health behavior, healthy ageing, healthy ageing index, intrinsic capacity, knowledge.*

Introduction

Since 2015, the World Health Organization (WHO) has developed Healthy Ageing Strategy, which defines healthy ageing as “the process of developing and

maintaining the functional ability that enables wellbeing in older age” (World Health Organization, 2020).

Based on the WHO definition, intrinsic capacity (IC) is a composite of all physical and mental attributes not only in older age, but throughout lifespan (Fig. 1).

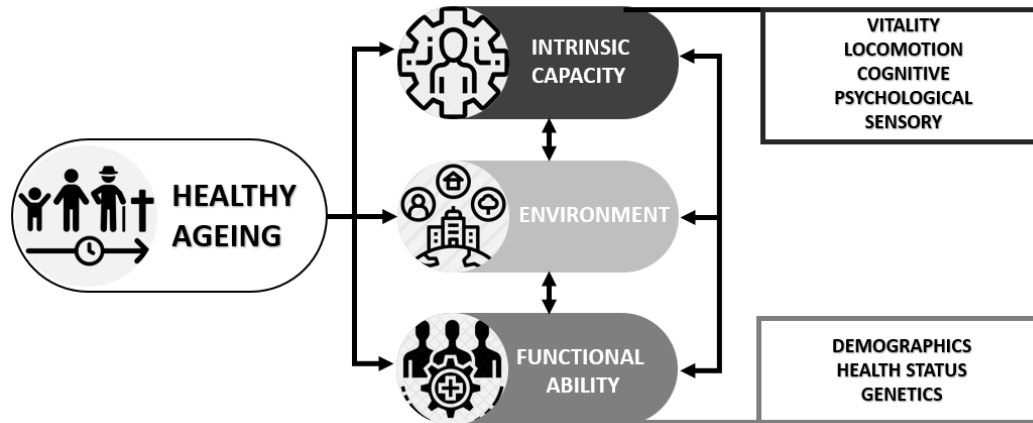


Figure 1 Determinants of Healthy Ageing (author's interpretation) (Cesari, 2018)

The five determinants of IC should not be considered as independent, as each of them interacts closely with the others as part of a dynamic interconnected environment. Each specific determinant individually will not provide a comprehensive view of an individual's ageing, mainly because it would omit information provided by interactions between different determinants.

The ageing process of each individual is different, and in developing an effective healthy ageing strategy, a tool for assessing healthy ageing is vital, however systematic reviews indicate that till now there is neither a unanimous definition nor a standardised metric for the evaluation of healthy ageing due to lack of measurement procedures (Cosco et al., 2015; Daskalopoulou et al., 2019a; Daskalopoulou et al., 2019b; Sowa et al., 2016; Tyrovolas et al., 2014).

Regular assessment of the ageing process of older individuals provides an opportunity to better understand the individual's functional abilities and vulnerabilities, especially before the Covid-19 outbreak. In order to implement the necessary measures for reducing and preventing the consequences of the Covid-19 pandemic, the information on the current ageing status is needed (Nestola et al., 2020; Thiyagarajan et al., 2019).

Previous studies on the effects of large-scale epidemics (Ebola virus, SARS) indicate that in long-term individuals may develop cognitive and psychological disorders such as sadness, depression and risk of suicide (Van Bortel et al., 2016; Wu et al., 2009).

The WHO describes the close relationship between *physical (locomotion)* and *cognitive* determinants and social participation in society. Social participation is defined as active participation in religious, sport, cultural, recreational, political and voluntary community organizations. Cognitive impairment can lead to decrease in functional abilities (Sepúlveda-Loyola et al., 2020).

Lack of social support and social activities can cause loneliness, which is a serious and widespread public health problem even before the Covid-19 outbreak. It is associated with negative outcomes in older individuals, including higher rates of depression, decrease in physical abilities and higher mortality. The key factor is individual's personal social networks, as it increases the emotional well-being of older individuals (English & Carstensen, 2014, Gerst-Emerson & Jayawardhana, 2015; Wang et al., 2020).

Lack of physical activity among older individuals is the fourth highest risk factor for mortality worldwide and a major contributor to disability. Physical activity is important for older individuals, especially those aged 85 and more, to maintain their level of independence, mental health, and well-being (Fingerman et al., 2020).

Sensory status is associated with other determinants of IC, as they can lead to reduced mobility, connections with the environment due to sensory impairment and cognitive processes caused by loneliness and isolation.

Vitality is one of the areas of an individual's IC that encompasses the individual's physiological changes in the context of biological ageing. Comorbidities and functional abilities can play an important role (Ping et al., 2020).

Material and Methods

The aim of the study is to evaluate and compare healthy ageing determinants of older individuals in the Baltic States.

The tasks of the study are the following: 1) to develop brief characteristics of IC determinants and describe their potential interaction; 2) to analyze and compare determinants of individuals' IC among the Baltic States in order to evaluate healthy ageing status before the impact of the Covid-19 outbreak.

Study was based on the sample of older individuals (50 years and older) from wave 8 of the Survey of Health, Ageing and Retirement in Europe (SHARE) during the period from November 2019 to March 2020.

Respondents who participated in the longitudinal survey with computer-assisted personal interviewing (CAPI) and were at least 50 years old were selected for the research. Sample consisted of 4947 respondents from Latvia (n=714), Estonia (n=2891) and Lithuania (n=1342).

In order to ensure the representativeness of the data, weighting procedure for data was performed by using calibrated (cross-sectional) individual weight - CAPI

interview only, that are computed separately by country to match the size of national target populations of individuals across eight gender-age groups (i.e., males and females in the age classes “50-59”, “60-69”, “70-79”, “80+” and across NUTS-1 (major socio-economic regions) (Bergmann et al., 2019).

Descriptive statistics as well as inferential statistics (Chi-square test, univariate and multivariate binary logistic regression) were used to analyze the results. $P < 0.05$ was set as the significance level. Based on a large sample size, in order to evaluate statistically significant result for Chi-square test, strength of association (Cramer’s V) was provided.

This paper is based on the preliminary SHARE wave 8 release 0 data. Therefore, the analyses, conclusions and results are preliminary.

Research Results

Latvia	Estonia	Lithuania
Age (median (IQR)): 65 (58-75)	Age (median (IQR)): 66 (59-75)	Age (median (IQR)): 64 (58-75)
Male: 39.3%	Male: 40.6%	Male: 40.0%
Female: 60.7%	Female: 59.4%	Female: 60.0%
Widowed, divorced or never married: 51.4%	Widowed, divorced or never married: 51.4%	Widowed, divorced or never married: 40.8%
Education:	Education:	Education:
None: 1.5%	None: 2.2%	None: 6.9%
Incomplete or completed basic: 28.4%	Incomplete or completed basic: 12.8%	Incomplete or completed basic: 10.7%
Secondary: 49.8%	Secondary: 82.3%	Secondary: 63.8%
Higher: 20.3%	Higher: 2.7%	Higher: 18.6%

Figure 2 Respondent Characteristics

Latvia	Estonia	Lithuania
Mother alive: 18.5%	Mother alive: 19.2%	Mother alive: 19.3%
Health poor or fair: 83.0%	Health poor or fair: 80.9%	Health poor or fair: 85.4%
Father alive: 3.3%	Father alive: 5.1%	Father alive: 4.4%
Health poor or fair: 91.5%	Health poor or fair: 86.0%	Health poor or fair: 62.4%
Contact with mother daily or several times a week: 66.7%	Contact with mother daily or several times a week: 55.0%	Contact with mother daily or several times a week: 73.8%
Contact with father daily or several times a week: 76.4%	Contact with father daily or several times a week: 33.5%	Contact with father daily or several times a week: 67.5%
Living together or < 1 km away:	Living together or < 1 km away:	Living together or < 1 km away:
With mother: 26.9%	With mother: 24.8%	With mother: 31.4%
With father: 26.5%	With father: 23.1%	With father: 35.6%
No brothers: 52.8%	No brothers: 31.0%	No brothers: 45.2%
No sisters: 47.0%	No sisters: 24.7%	No sisters: 47.0%
Children: 72.4%	Children: 64.2%	Children: 70.3%
Grandchildren: 25.0%	Grandchildren: 39.7%	Grandchildren: 27.9%

Figure 3 Family Characteristics

The main demographic characteristics of the respondents are provided in Figure 2 and the family characteristics in Figure 3. The results indicate that more than 50% of the respondents, regardless of their nationality, in the future could be more exposed to loneliness due to lack of individual social network.

Locomotion

Overall *difficulties in daily tasks* were reported by 25.6% of the respondents from Estonia, 20.7% from Lithuania, and 21% from Latvia, and the main difficulties were associated with such physical tasks as - *stooping, kneeling, crouching, climbing several flights of stairs, lifting or carrying weights over 5 kilos, getting up from chair, pushing or pulling large objects*.

44.8% of the respondents from Estonia, 36.3% from Lithuania and 37.4% from Latvia required assistance in *daily activities*, but 64.6% of the respondents from Estonia, 48.5% from Lithuania and 51.7% from Latvia required assistance to *meet needs* all the time.

80.3% of respondents from Estonia, 86.4% from Lithuania and 89.1% from Latvia reported they use aids in daily life. The main necessary aid was *walking stick or a cane* (Estonia- 42.2%, Lithuania- 53.5%, Latvia- 62.5%).

Performance in *sports or vigorous activities* was hardly ever or never reported by 44.9% of the respondents from Estonia, 42.7% from Lithuania and 29.4% from Latvia.

Performance in *activities requiring a moderate level of energy* was hardly ever or never reported by 13.1% of the respondents from Estonia, 16.0% from Lithuania and 13.6% from Latvia.

Sensory status

The *needs to wear glasses or contact lenses* were reported by 85.1% of the respondents from Estonia, 68.5% from Lithuania and 71.5% from Latvia. The *needs to use hearing aid* was reported by 60.9% of the respondents from Estonia, 57.8% from Lithuania and 62.7% from Latvia.

Eyesight distance as good, very good and excellent was rated by 73.5% of the respondents from Estonia, 84.2% from Lithuania and 68.2% from Latvia. The obtained results indicate a tendency that only 8% of the respondents from Latvia rated their eyesight distance as very good (7.4%) or excellent (0.8%) compared to Lithuania (respectively, 22.4% and 18.2%) and Estonia (respectively, 20.3% and 10.3%) ($p < 0.001$, Cramer's $V = 0.240$).

Hearing as good, very good or excellent was rated by 73.2% of the respondents from Estonia, 84.8% from Lithuania and 81.1% from Latvia. The obtained results indicate a tendency that only 17.4% of the respondents from Latvia rated their hearing as very good (15.6%) or excellent (1.8%) compared to

Lithuania (respectively, 25.5% and 21.9%) and Estonia (respectively, 17.5% and 9.8%) ($p < 0.001$, Cramer's $V = 0.237$).

Vitality

Self-rated health in general as good, very good or excellent was reported by 33.8% of the respondents from Estonia, 45.4% from Lithuania and 28.0% from Latvia. The obtained results indicate a tendency that only 2.2% of the respondents from Latvia rated their health as very good (2.1%) or excellent (0.1%) compared to Lithuania (respectively, 5.1% and 1.9%) and Estonia (respectively, 5.1% and 2.3%) ($p < 0.001$, Cramer's $V = 0.146$).

Existing long-term illness was reported by 70.4% of the respondents from Estonia, 62.6% from Lithuania and 52.9% from Latvia ($p < 0.001$, Cramer's $V = 0.131$). *Existing limitations in activities because of health* were reported by 58.9% of the respondents from Estonia, 47.5% from Lithuania and 59.9% from Latvia. Among them, severe limitations were reported by 26.0% of the respondents from Estonia, 15.3% from Lithuania and 22.4% from Latvia ($p < 0.001$, Cramer's $V = 0.100$). *Health problems limiting paid work* were reported by ~33% of all respondents, regardless of their nationality.

Existing diseases were reported by 27.4% of the respondents from Estonia, 24.3% from Lithuania and 27.1% from Latvia. Among them, combination of one to five diseases was reported by 69.7% of the respondents from Estonia, 72% from Lithuania and 72.4% from Latvia. Most common diseases were high blood pressure or hypertension (Estonia- 31.4%, Lithuania- 30.2%, Latvia- 36.8%), high blood cholesterol (Estonia- 12.1%, Lithuania- 12.9%, Latvia- 10.7%), diabetes or high blood sugar (Estonia- 7.8%, Lithuania- 5.8%, Latvia- 6.7%), rheumatoid arthritis (Estonia- 7.5%, Lithuania- 4.8%, Latvia- 6.3%), cataracts (Estonia- 5.7%, Lithuania- 5.3%, Latvia- 4%). Alzheimer's disease, dementia, senility or others affective/emotional disorders were reported only by 7.7% of the respondents from Estonia, 5.5% from Lithuania and 2.2% from Latvia. Less than 5% of the respondents, regardless of their nationality, have been diagnosed with stroke.

Taking at least 5 different drugs a typical day was reported by 26.6% of the respondents from Estonia, 22.1% from Lithuania and 24.9% from Latvia. The drugs were most commonly used for diseases of the cardiovascular system (high blood pressure, coronary disease, other heart disease) (Estonia- 43%, Lithuania- 45.5% and Latvia- 46.2%) and high blood cholesterol (Estonia- 10.1%, Lithuania- 8.3%, Latvia- 8.0%).

Bothered with frailty were 52.3% of the respondents from Estonia, 61.6% from Lithuania and 55.8% from Latvia. Most often the frailty was associated with *fatigue* (Estonia- 37%, Lithuania- 27.4%, Latvia- 28.7%), *dizziness, faints or blackouts* (Estonia- 24.8%, Lithuania- 29.4%, Latvia- 28.7%), *fear of falling*

down (Estonia- 25.2%, Lithuania- 26.8%, Latvia- 20.9%), less often it was associated with *falling down* (Estonia- 13%, Lithuania- 16.4%, Latvia- 8.7%).

Cognitive and psychological status

Self-rated reading skills were reported as good by 33.2% of the respondents from Estonia, 38.8% from Lithuania and 56.4% from Latvia, but all respondents from Estonia aged 70 years and older rated those skills as excellent, if compared to Lithuania (19.0%) and Latvia (5.5%) ($p < 0.001$, Cramer's $V = 0.161$).

Self-rated writing skills were reported as good by 42.1% of the respondents from Estonia, 41.8% from Lithuania and 54.8% from Latvia, but all respondents from Estonia aged 70 years and older rated those skills as excellent, compared to Lithuania (14.9%) and Latvia (4.4%) ($p < 0.001$, Cramer's $V = 0.148$).

Overall excellent, very good and good *memory* was reported by 39.8% of the respondents from Estonia, 66.5% from Lithuania and 50.9% from Latvia. Results indicate a tendency that 60% of Estonian respondents aged 80 years and older rate their memory as fair, compared to Lithuania (49.7%) and Latvia (49.9%).

Feelings of sadness and depression during the last month were most expressed among the respondents and were reported by 46.5% of the respondents from Estonia, 45.9% from Lithuania and 46.2% from Latvia.

Besides, *suicidal feelings or wish to be dead* was reported by 5.6% of the respondents from Estonia, 6.2% from Lithuania and 4.8% from Latvia. *Lack of companionship* was often reported by 10.6% of the respondents from Estonia, 8.4% from Lithuania and 7.7% from Latvia. *Feeling of loneliness* was often reported by 8.4% of the respondents from Estonia, 6.3% from Lithuania and 11.3% from Latvia, but respondents aged 80 years and older reported feeling of loneliness twice often than on average (Latvia- 20.8%, Estonia- 16.0% and Lithuania- 13.4%).

Satisfaction with life from 0 to 5 points was reported by 20.8% of the respondents from Estonia, 24.4% from Lithuania and 18.2% from Latvia. Detailed results will be provided in further analysis. Statistically significant associations ($p < 0.001$) were found between education and various cognitive and vitality factors, regardless of a nationality. Larger proportion of the respondents with higher level of education, compared to lower level of education:

- higher rated satisfaction with life
- (Cramer's V : Estonia=0.095, Lithuania=0.137, Latvia=0.175);
- less reported health problems limiting paid work
- (Cramer's V : Estonia=0.114, Lithuania=0.143, Latvia=0.131);
- less reported necessity for assistance in daily activities
- (Cramer's V : Estonia=0.207, Lithuania=0.233, Latvia=0.068);
- less reported received assistance in personal care

- (Cramer’s V: Estonia=0.236, Lithuania=0.174, Latvia=0.167);
- less reported 1-5 comorbidities
- (Cramer’s V: Estonia=0.134, Lithuania=0.129, Latvia=0.074);
- less reported cognitive diseases (Alzheimer’s disease, dementia or other)
- (Cramer’s V: Estonia=0.138, Lithuania=0.146, Latvia=0.083);
- less reported concentration difficulties
- (Cramer’s V: Estonia=0.129, Lithuania=0.159, Latvia=0.158);
- less reported feeling of isolation
- (Cramer’s V: Estonia=0.125, Lithuania=0.150, Latvia=0.149);
- less reported feeling of loneliness
- (Cramer’s V: Estonia=0.114, Lithuania=0.137, Latvia=0.137);
- less reported financial problems to meet household needs
- (Cramer’s V: Estonia=0.008, Lithuania=0.174, Latvia=0.119).

For further analysis, respondents were divided into 2 following groups, based on satisfaction with life: low satisfaction with life (0-5 points) and high satisfaction with life (6-10 points) in order to compare demographic and IC determinants. The most important demographic factors are provided in Table 1.

Table 1 Comparison of Demographic Factors Based on Satisfaction with Life

Demographic factors	LOW satisfaction with life			HIGH satisfaction with life		
	Latvia	Estonia	Lithuania	Latvia	Estonia	Lithuania
Male	42.4%	46.6%	38.1%	37.9%	37.8%	40.6%
Female	57.6%	52.1%	61.9%	62.1%	62.2%	59.4%
Age	69	69	65	65	65	64
Median (IQR)	(61-79)	(69-84)	(59-77)	(58-74)	(59-74)	(58-74)
Married and living together	29.9%	35.6%	47.2%	50.4%	46.9%	59.3%
Basic or lower education	47.2%	21.3%	23.2%	26.0%	13.0%	15.1%
Employed	12.2%	21.5%	25.1%	35.8%	46.6%	41.2%
Ability to make ends with some or great difficulty	90.0%	74.4%	75.2%	69.5%	41.2%	38.4%
Level of income /pension	300	460	300	333	476	350
Median (IQR)	(276-355)	(400-500)	(250-361)	(280-430)	(450-520)	(280-450)
Physical activities hardly ever or never: moderate	28.3%	21.7%	29.0%	10.4%	9.9%	11.0%
Physical activities hardly ever or never: vigorous	46.4%	58.2%	57.1%	25.6%	40.5%	38.8%
Looking after grandchildren	14.8%	29.2%	16.5%	27.4%	42.7%	31.8%
Participation in social activities	46.7%	85.4%	71.1%	63.6%	94.2%	85.6%
Social support - provided help to others	5.5%	16.0%	10.4%	12.5%	24.5%	15.7%

The results of this study indicate a statistically significant association ($p<0.001$) between social participation and such cognitive, psychological and vitality factors as:

- higher level of self-rated reading skills

- (Cramer’s V: Estonia = 0.347, Lithuania = 0.342, Latvia = 0.251);
- higher level of self-rated writing skills
- (Cramer’s V: Estonia= 0.267, Lithuania = 0.326, Latvia = 0.269);
- higher level of memory
- (Cramer’s V: Estonia = 0.245, Lithuania = 0.169, Latvia = 0.202);
- higher level for satisfaction with life
- (Cramer’s V: Estonia = 0.133, Lithuania = 0.162, Latvia = 0.134);
- lower level of depression
- (Cramer’s V: Estonia = 0.146, Lithuania = 0.166, Latvia = 0.140);
- less feeling of loneliness
- (Cramer’s V: Estonia = 0.103, Lithuania = 0.08, Latvia = 0.131);
- higher hope for future
- (Cramer’s V: Estonia = 0.205, Lithuania = 0.173, Latvia = 0.069);
- less difficulties in daily tasks
- (Cramer’s V: Estonia = 0.130, Lithuania = 0.073, Latvia = 0.006);
- less comorbidities
- (Cramer’s V: Estonia = 0.133, Lithuania = 0.054, Latvia = 0.144);
- less provided assistance in daily tasks
- (Cramer’s V: Estonia = 0.284, Lithuania = 0.231, Latvia = 0.306).

Table 2 represents data on individuals showing the biggest differences between life satisfactions groups after comparison of various IC determinants.

Table 2 Comparison of IC Determinants Based on Satisfaction with Life

IC determinants	LOW satisfaction with life			HIGH satisfaction with life		
	Latvia	Estonia	Lithuania	Latvia	Estonia	Lithuania
Age prevents from doing things	59.8%	36.6%	41.7%	16.0%	13.4%	17.2%
Poor memory	26.6%	14.1%	6.4%	4.6%	5.7%	2.9%
Troubles with sleep	54.2%	68.2%	62.8%	40.1%	47.3%	42.3%
Less appetite	14.6%	15.4%	12.2%	6.3%	7.7%	8.0%
Severely limited/limited in activities because of health	85.5%	81.1%	63.3%	53.4%	85.1%	42.0%
Difficulties with physical tasks	71.4%	74.4%	65.3%	50.1%	45.3%	44.7%
Difficulties with daily tasks	36.8%	42.7%	33.2%	16.7%	20.2%	15.9%
Someone in household helped with personal care	52.2%	33.0%	23.0%	9.1%	21.3%	14.7%
Poor health	52.5%	38.1%	21.8%	14.3%	10.7%	5.3%
1-5 diseases	83.5%	79.8%	77.0%	70.1%	79.8%	70.1%
Taking 5 drugs a day	39.7%	38.6%	32.3%	21.4%	22.4%	17.9%
Frailty: fear of falling down	28.2%	36.2%	31.1%	11.7%	17.7%	16.0%
Frailty: fatigue	42.5%	50.9%	32.2%	26.1%	26.3%	16.3%
Suicidal feelings	15.0%	14.2%	12.2%	4.2%	3.1%	4.2%
Sad or depressed	73.7%	69.6%	64.3%	39.7%	40.4%	39.9%
Feels isolated	41.1%	33.3%	27.2%	17.4%	13.4%	10.3%
Feels lonely	68.2%	44.3%	43.7%	32.2%	22.5%	21.6%
No hopes for future	30.5%	41.1%	50.3%	10.7%	14.1%	23.7%
Life has meaning	21.6%	31.7%	26.4%	47.6%	66.4%	59.8%

The results of this study indicate a statistically significant association ($p < 0.001$) between vigorous physical activities at least once a week and such cognitive and vitality factors as:

- less provided assistance in daily tasks
- (Cramer's V: Estonia = 0.173, Lithuania = 0.189, Latvia = 0.323);
- less limitations in daily activities due to an age
- (Cramer's V: Estonia = 0.194, Lithuania = 0.181, Latvia = 0.187);
- less difficulties in daily tasks
- (Cramer's V: Estonia = 0.395, Lithuania = 0.328, Latvia = 0.319);
- higher level of energy
- (Cramer's V: Estonia = 0.203, Lithuania = 0.191, Latvia = 0.267);
- higher level of memory
- (Cramer's V: Estonia = 0.175, Lithuania = 0.132, Latvia = 0.189);
- larger proportion of the respondents with no long-term illness
- (Cramer's V: Estonia = 0.284, Lithuania = 0.273, Latvia = 0.268);
- larger proportion of the respondents with no comorbidities
- (Cramer's V: Estonia = 0.261, Lithuania = 0.161, Latvia = 0.220).

Maintaining mobility at an old age is necessary because it can prevent loss of independence. It is proven that physical activity can protect not only against loss of independence, progression of disability, but also maintain cognitive functioning (Goethals et al., 2020).

The results of this study indicate several associations:

- *presence of long-term illness* increases odds for **depression** in Estonia: OR 2.56 (95% CI 2.54-2.61), Lithuania: OR 2.52 (95% CI 2.50-2.54) and Latvia: OR 2.24 (95% CI 2.24-2.22),
- *presence of comorbidities* increases odds for **depression** in Estonia: OR 2.62 (95% CI 2.58-2.66), Lithuania: OR 3.54 (95% CI 3.50-3.58) and Latvia: OR 2.38 (95% CI 2.35-2.41).
- *presence of long-term illness* increases odds for **limited functional abilities** in Estonia: OR 2.87 (95% CI 2.83-2.904), Lithuania: OR 2.68 (95% CI 2.66-2.70) and Latvia: OR 4.31 (95% CI 4.27-4.35),
- *presence of comorbidities* increases odds for **limited functional abilities** in Estonia: OR 3.25 (95% CI 3.21-3.29), Lithuania: OR 3.00 (95% CI 2.97-3.03) and Latvia: OR 3.94 (95% CI 3.89-3.98).
- *presence of long-term illness* increases odds for **needing assistance of others** in Estonia: OR 2.44 (95% CI 2.40-2.48), Lithuania: OR 4.44 (95% CI 4.37-4.51) and Latvia: OR 2.87 (95% CI 2.83-2.91).
- *presence of comorbidities* increases odds for **needing assistance of others** in Estonia: OR 2.47 (95% CI 2.42-2.51), Lithuania: OR 3.88 (95% CI 3.80-3.96) and Latvia: OR 2.41 (95% CI 2.37-2.46).

Assessment of healthy ageing of older individuals is a complex multidimensional process as there are many IC factors, which need to be evaluated independently as well as in interaction with others. To assess the most important IC determinants that might have negative impact on healthy ageing, predictions associated with low satisfaction with life were made. Based on the results, the main negative factors that increase odds towards low satisfaction with life for each Baltic country are provided in Table 3.

Table 3 Main Negative Predictive Factors towards Low Satisfaction with Life

	Unadjusted OR (95%CI)		
	Latvia	Estonia	Lithuania
“life has no meaning”	7.21 (7.11-7.30)	3.63 (3.57-3.69)	5.62 (5.55-5.68)
“age prevents from doing things”	5.24 (5.16-5.32)	2.98 (2.94-3.03)	2.84 (2.81-2.87)
“poor health”	7.92 (7.74-8.01)	5.15 (5.04-5.25)	2.93 (2.91-2.96)
“more than 5 drugs per day”	2.42 (2.39-2.45)	2.18 (2.14-2.21)	2.20 (2.17-2.22)
“bothered by frailty”	2.35 (2.33-2.38)	3.38 (3.33-3.43)	2.50 (2.48-2.52)
“sad or depressed”	4.24 (4.19-4.30)	3.39 (3.34-3.44)	2.71 (2.69-2.74)
“suicidal feelings”	6.45 (6.31-6.59)	5.13 (5.01-5.26)	3.21 (3.16-3.26)
“feels lonely”	6.29 (6.20-6.39)	5.17 (5.07-5.28)	4.38 (4.31-4.45)
“Education” reference category: Higher			
No education	1.43 (1.34-1.53)	2.82 (2.65-3.00)	4.59 (4.50-4.68)
Incomplete or completed basic	6.06 (5.93-6.19)	2.28 (2.17-2.40)	2.95 (2.89-2.99)
Secondary	2.83 (2.77-2.89)	1.30 (1.24-1.37)	2.27 (2.45-2.31)

Based on the binary logistic regression results (Table 3), the authors first identified 9 factors, which have the biggest impact on the respondent’s satisfaction with life - “meaning of life”, “age prevents from doing things”, “poor health”, “more than 5 drugs per day”, “frailty”, “sadness or depression”, “suicidal feelings”, “loneliness” and “level of education”.

In the subsequent analysis, the four most important factors were identified (Table 4). The results indicated that for all Baltic countries these four factors were the same; however, have different level of impact. In Latvia and Lithuania, the most important factor was “life has no meaning”, but in Estonia the most important factor was “poor health”.

Table 4 Most Important Negative Predictive Factors towards Low Satisfaction with Life

	Adjusted OR (95%CI)		
	Latvia	Estonia	Lithuania
“life has no meaning”	4.49 (4.42-4.56)****	2.31 (2.27-2.36)**	4.41 (4.35-.4.46)****
“poor health”	5.48 (5.35-5.60)***	3.99 (3.91-4.08)****	2.53 (2.50-2.55)***
“suicidal feelings”	1.99 (1.94-2.05)*	2.69 (2.62-2.77)*	1.99 (1.94-2.05)*
“feels lonely”	2.53 (2.48-2.58)**	3.12 (3.04-3.19)***	2.53 (2.48-2.58)**

*less important - ****most important (based on Wald statistics)

Discussion

This is one of the few studies that evaluated interactions between the IC determinants of healthy ageing. Present findings indicate that there exists interaction between such IC determinants as age, limitations in physical and daily tasks due to age and poor health, comorbidities, less physical activities, lack of social network and social activities, sadness or depression, feelings of loneliness and isolation as well as lower level of education, unemployment, lower levels of income and financial difficulties, regardless of their nationality. Various studies (Bergman & Segel-Karpas, 2018; Hawkey & Cacioppo, 2010; Sepúlveda-Loyola et al., 2020) have also reported similar findings in associations between social support and cognitive functions.

The results of a study conducted in China (Ping et al., 2020) indicate that age is associated with higher risk for anxiety and depression, less management of self-care and decreased functional ability of older individuals. In the present study, age has very little or no impact on depression, limited functional abilities and the need for assistance of others. They also concluded that depression was most common for respondents with three or more chronic diseases (46.3%) and less common for respondents who were unemployed (26.4%), divorced or widowed (31.6%), with low income (15.3%) and low level of education (18.7%), while the present study indicates the opposite result, which could be explained by unequal age of respondents and also cross-cultural differences.

Findings from a population-based cohort study (Daskalopoulou et al., 2019) suggests during the development of healthy ageing index such IC determinants as physical impairment, cognitive and psychological functions (including depression), comorbidities (arterial hypertension, arthritis, stroke, dementia etc.) and self-rated health must be included as they can predict the health outcome and even mortality. Findings from the present study also indicate a tendency for the above factors to predict health status and satisfaction with life, but also, unlike the above study, some demographic factors such as level of education, level of income and financial difficulties also have an important role in satisfaction with life. Based on the findings from present and similar studies, the authors identified two best healthy ageing profiles.

Profile 1 - “absence of all 8 predictors (Table 3) + level of education secondary or higher and high satisfaction with life”: less than 5% of all respondents, regardless of their nationality, matched these criterions.

Profile 2 - “absence of all 4 predictors (Table 4) + level of education secondary or higher and high satisfaction with life”: 30.6% respondents from Estonia, 23.8% from Lithuania and 30.6% from Latvia matched these criterions.

However, further longitudinal research is needed as exploration of these areas can provide necessary information for therapeutic and preventive actions

that can be tailored to an individual's needs, priorities and values to support participation and quality of life.

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ECONOMIC FACTORS OF CLINICAL TRIALS OF MEDICINES IN SMALL POPULATION COUNTRIES: CASE STUDY OF LATVIA

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Abstract. *The clinical trial process has become a significant type of services that provides huge added value to any national economy. Undoubtedly, the primary group of stakeholders in clinical trials of medicines is pharmaceutical companies that obtain a product as a result of successful clinical trials. However, other groups involved will also obtain materials and intangible benefits from the process of clinical trials of medicines. In this context, the authors tended to find out: What are considered to be the primary economic benefits of clinical trials of medicines in a society with small population? Aim of the research is to analyse economic factors of clinical trials of medicines in countries with small population, taking Latvia as an example. Object of the research: economic factors of clinical trials of medicines. The principle of snowball has been used to make the selection of the participants' survey. The empirical analysis and evaluation of economic factors in unique clinical trials of medicines are based on the qualitative research method of semi-structured individual (in-depth) interviews. According to the survey, the most important economic type of clinical trials of medicinal products in Latvia is “socioeconomic factors”, the average index of the factor being 0.82. The most significant three categories of the socioeconomic factors are “Access to the latest treatment methods and preparations” (Index max 1), “Improved patient care (time used per patient)” (Index 0.87) and “Exchange of experience, transfer of knowledge on the most innovative treatment methods” (Index 0.86). Society with small population values the primary economic benefits from clinical trials of medicines. It can be concluded that the socioeconomic factor is the most significant, compared to the direct economic factor and the alternative cost savings factor.*

Keywords: *clinical trials; economic factors of clinical trials; small population countries.*

JEL classification: *I19; M29.*

Introduction

Clinical trials of medicinal products are one of the most important parts in developing of new medicines. Clinical trials of medicines are research conducted with humans for the purpose of developing or testing clinical, pharmacological and other pharmacodynamic effects of medicines, identifying side effects caused by their use, examining their pharmacokinetics, in order to determine the safety and efficacy of medicines (EU Clinical Trials Register, 2020).

The pharmaceutical industry, by making significant investments in the development of new medicines, not only makes huge profits on these investments, but also contributes to public health. As shown in recent studies (Yang & Lee, 2018), the cost of Research and Development (R&D) investment in the pharmaceutical industry is increasing and the productivity is stagnant. For this reason, the demand for innovation is growing. It is also estimated (DiMasi, Grabowski, & Hansen, 2016) that the cost of developing a new drug has increased from USD 800 million (in 2000) to USD 2.87 billion (in 2013).

Introduction of new medicines on the market is only possible after an extensive research, involving high risks. On average, it takes 12-13 years to market the development new medicines since synthesising the first active substance. The cost of a new chemical or biological substance is around EUR 1.059 billion. Out of 10 000 new synthesised substances, only one or two becomes a marketable product (The European Federation of Pharmaceutical Industries and Associations, 2020).

Investment in research and development in the pharmaceutical industry in Europe reached more than EUR 35 300 million in 2017. The dominant positions of the United State of America (USA) in the R&D market over the past decade has led to a significant shift in economic and research activities to this country. Moreover, Europe is facing an increasing competition with emerging economies such as Brazil and China, so the geographical balance of the pharmaceutical market in the research and development area is expected to gradually shift to developing countries. Spending on R&D in the pharmaceutical industry in Europe has been growing by 3.8% annually since 2014, compared with the USA, where this indicator has been growing at a much faster rate of 8.6%. In 2018, the global pharmaceutical and biotechnology sector in the R&D field ranked first in the world at 15%, compared to the R&D intensity of the general sector. The number of employees involved in pharmaceutical R&D in Europe in 2018 was about 115 000 (The European Federation of Pharmaceutical Industries and Associations, 2020).

Aim of the research is to analyse economic factors of clinical trials of medicines in countries with small population, taking Latvia as an example. Object of the research: economic factors of clinical trials of medicines. The principle of

snowball has been used to make the selection of the participants' survey. The empirical analysis and evaluation of economic factors in unique clinical trials of medicines are based on the qualitative research method of semi-structured individual (in-depth) interviews.

Characterization of Clinical Trials of Medicines in Latvia

Despite the fact that Latvia's population is *small*, there is stable increase in clinical trials. On average, 67 permits for clinical trials have been issued over the last 10 years and, on average, 264 clinical trials have been conducted (see Fig. 1).

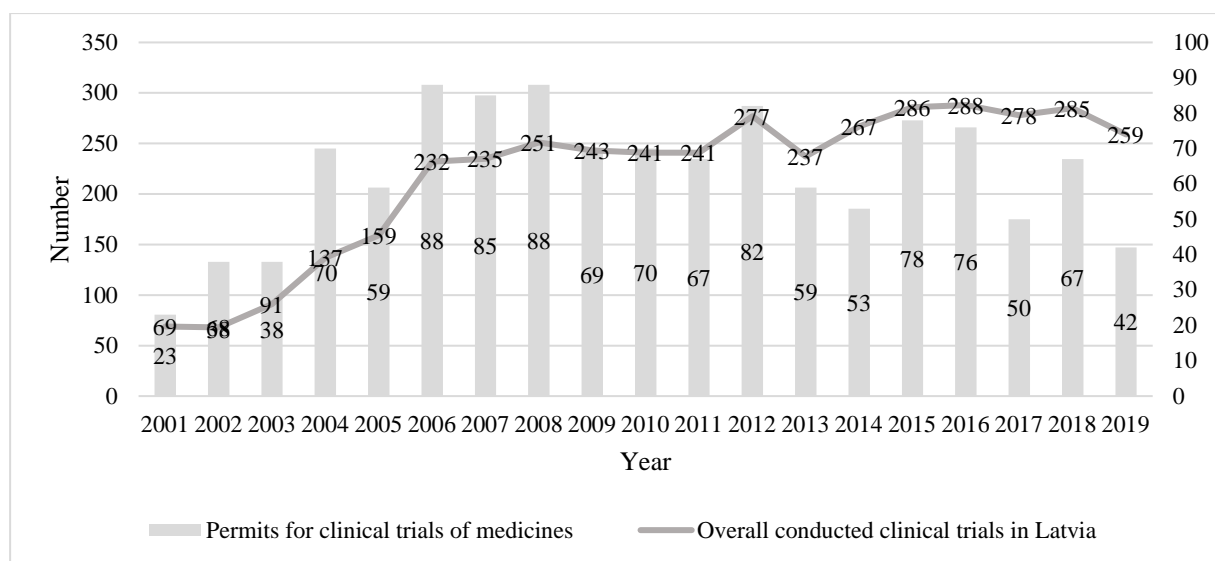


Figure 1 *Clinical Trials in Latvia* (The State Agency of Medicines of Latvia A, 2020; The State Agency of Medicines of Latvia B, 2020)

A rapid increase in permits for clinical trials took place in 2004, resulting in bigger volumes of clinical trials in 2005 and 2006. Such an increase in clinical trials could be attributed to Latvia's accession to the European Union (EU), a very good infrastructure, skilled medical professionals and many treatment “naïve” patients.

The permitted clinical trials of medicines by phases are reflected in the number of issued permits, as the number of patients increases significantly with every next phase of the trials (see Fig. 2).

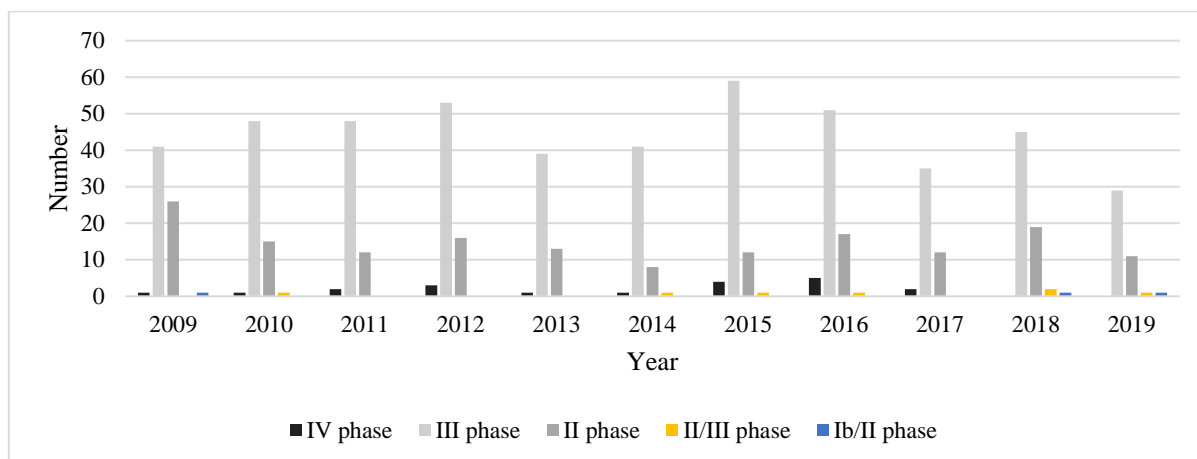


Figure 2 *Number of Clinical Trials by Phases in Latvia* (The State Agency of Medicines of Latvia A, 2020; The State Agency of Medicines of Latvia B, 2020)

Since 2009, 24% of all clinical trials of medicines have been the phase II research and 72% the phase III research.

During the last ten years, the biggest number of permitted clinical trials in Latvia was in the following sectors: oncology, pulmonology/allergology/physiatrics, psychiatry/neurology, endocrinology, rheumatology, gastroenterology (see Fig. 3).

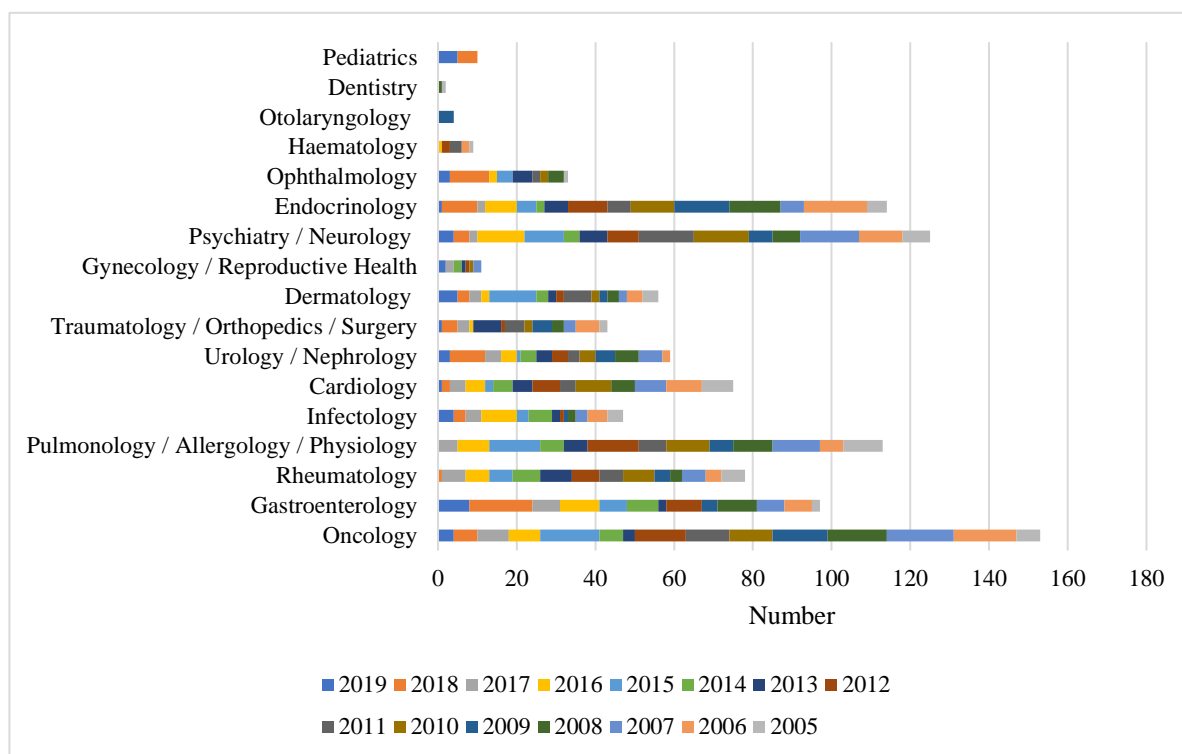


Figure 3 *Clinical Trials of Medicines in Different Sectors of Therapy* (The State Agency of Medicines of Latvia A, 2020; The State Agency of Medicines of Latvia B, 2020)

The sectoral breakdown of clinical trials of medicines is very similar to the world tendencies where oncology is leading in terms of the number of studies.

There are a lot of publications devoted to clinical trials of medicines (Abdel-Kader & Jhamb, 2020; Sakamaki et al., 2020; Thiers, Sinskey, & Berndt, 2008), including in Latvia (Logviss, Krievins, & Purvina, 2018), but various economic aspects of clinical trials are subject to continuous changes (Kramer, J. M.; Schulman, 2012; Petitti, 2009; Pinto, Willan, & O'Brien, 2005; Ramsey et al., 2015).

According to approximate estimates of PricewaterhouseCoopers, salaries of internal and insourced staff constitute 31%, support services (including couriers, accommodation, travelling, translations, etc.) – 8%, remuneration of researchers – 31%, remuneration of sites – 11%, fees of Ethical Committees – 2%, Central Clinical Trial Registry – 1%, medical costs (other than drugs, i.e. lab tests, scans, etc.) only 2% and other expenses 14%. More than a quarter of revenues from clinical trials come as a tax contribution to the state budget (PwC, 2020).

The most obvious economic factors can be segmented into benefits for state and medical institutions. Costs of clinical trials are covered by sponsors – medicines for patients, examinations, as well as the work of doctors and nurses, etc.

Structure of payments by clinical research centres includes all three elements of the economic factors directly or indirectly. Direct economic factors include national charges, both as labour force taxes and corporate taxes, made by researchers and Clinical Research Associates (CRA) within the framework of clinical trials. In addition, the direct economic effect may include resources that are not paid by the state for medicines and bed day costs for medical treatment of patients. Socioeconomic factors are also manifested as benefits for medical and scientific authorities as deductions for the use of infrastructure and archiving services, which are further directed to develop the clinical and scientific base.

The process of selecting healthcare services is currently being organised in accordance with Cabinet Regulation No. 555 adopted on 28 August 2018 “Procedures for the Organisation and Payment of Health Services” (Cabinet of Ministers, 2018). Hospitals are still paid through a combination of “earmarked service programs”, Diagnostic Related Groupings (DRGs) and payments according to the actual number of bed days (Strizrep & Alaka, 2016). Accordingly, fees and charges for bed days take place in accordance with at least this regulatory enactment. Archiving and deductions for the use of infrastructure are determined in accordance with contracts for the respective clinical trials. The bilateral agreements set also salaries of Clinical Research Associates and physicians-researchers.

In spite of the obvious significance of direct economic factors in clinical trials of medicines, other economic factors, which are not of minor importance, are also required (see Fig. 4).

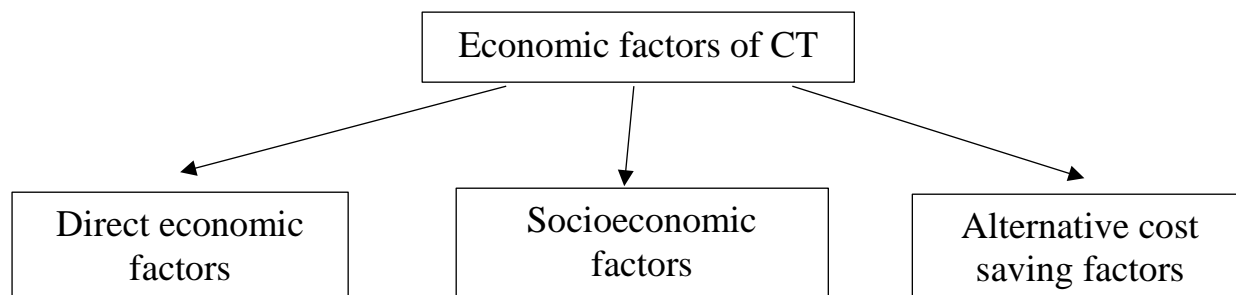


Figure 4 *Economic Factors of Clinical Trials of Medicines* (made by the authors)

The provided categories have been grouped according to the following three economic factors: direct economic factors, socioeconomic factors and alternative cost savings factors (Kalashnikov, 2004; Lin, Sokolov, & Orlov, 2015; Melihov, 2006).

Material and Methods

Identification of economic factors. Types of economic factors of clinical trials of medicines have been identified based on an analysis of scientific and practical literature. Three types of economics factors have been identified.

An empirical research is based on a systemic approach to investigate the maximum possible manifestation properties of the object. This increases the probability of acquiring general knowledge about the object of research. Every type of economic factors of clinical trials, in terms of content, is comprehensive; therefore, expert opinion is used to identify and group economic factors of clinical trials of medicines. The authors have selected a model that allows evaluating economic factors of clinical trials of medicines in fifteen categories: *direct economic factors* (contribution to the state budget; employment opportunities; economic incentives for other supportive businesses; additional revenues of medical institutions; provision and improvement of medical infrastructure of clinical trials), *socioeconomic factors* (access to the new standards of Good Clinical Practice (GCP); access to the latest treatment methods and preparations; improved patient care (time used per patient); in-depth patient care after a treatment course; access to examinations not available in Latvia; exchange of experience, transfer of knowledge on the most innovative treatment methods; professional development of researchers and doctors and work experience) and *alternative cost savings factors* (contribution to the national economy (retaining

of working capacity and contribution to the Gross Domestic Product (GDP) increase); saving of healthcare and social resources; family contribution to the national economy (taxes and GDP increase).

Search strategy. The principle of snowball has been used to make the selection of the participants' survey. As participants with information and understanding of what clinical trials are and what the economic factors of clinical trials are that could provide useful information, we have used snowball sampling so that we could set up a network to find each of the next participants in the survey. The empirical analysis and evaluation of economic factors in unique clinical trials of medicines are based on the qualitative research method of semi-structured individual (in-depth) interviews. A content analysis has been used to process the resulting data. A method of logical analysis has been used to reflect the conclusions of the empirical study.

Survey groups. A case study method has been selected for the research to analyse the activities of several *subjects* in three groups. This research method can be applied in both developing of new scientific knowledge and solving various practical situations. Attention is paid to the subtlety and complexity of the individual case. Pauls Stradiņš Clinical University Hospital (PSKUS) is the second largest clinical university hospital in Latvia, where the biggest number of clinical trial research centres in Latvia is attracted. The validity of the choice of the case study research method and the research subject is ensured by: 1) PSKUS doctors-researchers involved in conducting clinical trials; 2) administrative staff ensuring clinical trial processes at PSKUS; 3) CRA that supervises researches at PSKUS. Patients are not selected as research subjects because their responses to the economic factors of clinical trials are expected to be highly biased and, above all, personal benefits from clinical trials will be mentioned as an economic factor. In view of the specific niche of clinical trials, random respondents are not included in this survey, since the overall understanding of the economic factors of clinical trials may be very low.

Research Results

Matrix of economic factors. All three groups of respondents have been also analysed in the context of the entire group. In total, 23 respondents have participated in this research. For confidentiality purposes, respondents have been coded and only their codes have been used in the work – Group 1 (A1 – A9), Group 2 (B10 – B16), Group 3 (C17 – C23). Each participant in the survey was asked to code each economic factor from 1-15.

Table 1 Summary of the Research Results

Type of economic factor		Category of economic factor	Code	Weight factor (Index)
Direct economic factors	State	Contribution to the state budget	107	0.36
		Employment opportunities	144	0.48
		Economic stimulus for other supportive businesses	86	0.29
	Medical institution	Additional revenue of medical institutions	137	0.46
		Provision and improvement of medical infrastructure of clinical trials	137	0.46
<i>Total sum of the codes:</i>			611	
<i>Average index of the factor</i>				0.41
Socio-economic factors	For patients	Access to the new standards of Good Clinical Practice (GCP)	212	0.71
		Access to the latest treatment methods and preparations	297	1.00
		Improved patient care (time used per patient)	259	0.87
		In-depth patient care after a treatment course	235	0.79
		Access to examinations not available in Latvia	219	0.73
	For researchers	Exchange of experience, transfer of knowledge on the most innovative treatment methods	255	0.86
		Professional development of researchers and doctors and work experience)	235	0.79
	<i>Total sum of the codes:</i>			1712
<i>Average index of the factor</i>				0.82
Alternative cost savings factor	Contribution to the national economy (retaining working capacity and contribution to the GDP increase)		105	0.35
	Saving of healthcare and social resources		118	0.39
	Family contribution to the national economy (taxes and GDP increase)		74	0.25
<i>Total sum of the codes:</i>			297	
<i>Average index of the factor</i>				0.33

The research has resulted in the creation of matrices that separate types of economic factors, categories of economic factors, codes and the weight factor (Index). Table 1 summarises the research results (emphasis on the weight factor (Index)). First of all, based on the determined code values, the index (weight factor) has been calculated for each category of the economic factors where the sum of codes for each category is divided by the maximum code of one of the categories (e.g. 107/297; 297/297; 74/297, etc.). The maximum code of the categories (the sum of answers of each respondent) is the economic factor category - "Access to the latest treatment methods and preparations", 297, in total. This allows ranking values of the category of economic factors of clinical trials.

Secondly, this shows the level of significance of each type of the factor, i.e. respondents have identified the topic categories as relevant. The significance of each type of factors is indicated as the average weight factor (Index). The average

weight factor (Index) has been calculated as the average Weight factor (Index) of each type of economic factors.

Characteristics of the categories of economic factors. For each category of economic factors, the Weight factor (Index) has been estimated. The most important category for identifying economic factors in clinical trials is the “Access to the latest treatment methods and preparations” (Index max 1). Next most important indexes are the “Improved patient care (time used per patient) - 0.87, “Exchange of experience, transfer of knowledge on the most innovative treatment methods” - 0.86, “In-depth patient care after a treatment course” - 0.79 and “Professional development of researchers and doctors and work experience” - 0.79. The index “Access to examinations not available in Latvia” has been estimated as 0.73 and “Access to the new standards of Good Clinical Practice (GCP)” as 0.71. All estimated weight factors (Indexes) belong to the category of socio-economic factors of economic factors, pertaining to both patients and researchers.

Other most important economic factors are direct economic factors. Respondents believe that a positive contribution to the economy is the “Medical institution” subfactor – “Additional revenue of medical institutions” and “Provision and improvement of medical infrastructure of clinical trials” - index 0.46. Then follows the “Employment opportunities” category of the “State” subfactor - 0.48. Weight factor (Index) of “Contribution to the state budget” is 0.36 and of “Economic stimulus for other supportive businesses” 0.29.

Weight factor (Index) of “Saving of healthcare and social resources” is 0.39 and of “Contribution to the national economy (retaining working capacity and contribution to the GDP increase)” 0.35.

The least important economic category in clinical trials is “Family contribution to the national economy (taxes and GDP increase)” (Index 0.25).

Characteristics of types of economic factors. Another important result is the total amount of codes in the context of identifying economic factors in clinical trials. The interpretation and conceptualisation of the research data have revealed that the type of economic factors - “socioeconomic factors” has the biggest sum of codes (1712 in total), the average index of the factor is 0.82. The type of economic factors - “direct economic factors” has shown 611 in total, the average index of the factor is 0.41, while the type of economic factors - “alternative cost savings factor” has the smallest sum of codes (297 in total), the average index of the factor is 0.33.

Conclusions and Discussion

Taking into account the results of the survey, financial revenue from clinical trials is not the most significant economic factor. The respondents believe that

exactly socioeconomic factors give primary economic benefits from clinical trials of medicines in a society with small population. Certainly not only in countries with a small population, the largest beneficiaries of clinical trials are patients, but also researchers. Exchange of experience, transfer of knowledge on the most innovative treatment methods and professional development of researchers and doctors and work experience are two most significant benefits from clinical trials. Financial benefits from clinical trials are of great importance to the national economy. Its revenue from clinical trials contributes to the development of a more rapid scientific research base for medicated institutions. In the form of different national taxes and unpaid medicines, even a country with a small population has benefited in terms of several million euro. Although the “Alternative cost savings factor” is underestimated on the part of the respondents, this factor can be considered as having hidden potential in the context of its economic contribution, as it cannot be estimated with account of the high probability of the outcome.

When assessing how a society with a small population evaluates the primary economic benefits from clinical trials of medicines, it can be clearly concluded that all categories of the surveyed groups believe that the socioeconomic factor is the most significant. Patients in clinical trials are overly beneficial because they have access to the latest treatment methods and preparations, and patients benefit from the improved patient care. The alternative cost savings factor is the least significant in the context of the economic factors of clinical trials.

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THE RELATIONSHIP BETWEEN THE TEACHING STYLE OF SWIMMING COACHES AND THEIR ATHLETES' MOTIVATION FOR SPORT

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Abstract. *The paper presents a research dealing with one of the most relevant problems in sports education science, the coach's influence on young athletes' motivation. The aim of the research is to investigate the correlations between manifestation of the teaching style applied by coaches and motivation of their athletes for sport. The research raises a hypothesis that the teaching styles applied by coaches may be related to the motivation for sport in the athletes being trained. The research is based on the provisions of reproductive and productive teaching methods as well as the self-determination theory. The research involved 14–18-year-old swimmers and their coaches. Two questionnaires have been employed: description of the teaching style (Curtner-Smith et al., 2001; Hein et al., 2012) and sport motivation scale (SMS–II; Pelletier et al., 2013). Referring to the responses in relation to manifestation of the teaching style, the coaches have been divided into three groups. The one factor analysis of variance (ANOVA) was applied to test the research hypothesis. The research hypothesis was proven only partly. It was found that application of different teaching styles may have had effect on young athletes' external motivation only. It can be substantiated that the teaching style employed by swimming coaches and related both reproductive and reproductive teaching methods have no significant effect on young athletes' intrinsic motivation for sport in the coaching practise.*

Keywords: *motivation for sport, self-determination theory, swimming, teaching styles.*

Introduction

Motivation for sport is one of the most important factors of effective training of an athlete; in recent years, it has become a highly relevant problem in research in sports science (Weinberg & Gould, 2019). The goals and sport interest of the trainees may be significantly influenced by a sports pedagogue (Jõesaar, Hein, & Hagger, 2012; Pelletier, Rocchi, Vallerand, Deci, & Ryan, 2013; Ryan & Deci, 2007). Some researchers (De Francisco, Arce, Sánchez-Romero, & del Pilar Vílchez, 2018) suppose that motivation is a fixed trait or characteristics of a personality – an athlete is simply motivated or not. Nevertheless, relationships between coach and athlete are one of major factors that can determine athlete's

motivation for sports among various external factors having effect on an athlete throughout one's career in sports (Cuevas, García-López, & Serra-Olivares, 2016; Mageau & Vallerand, 2003; Reynders et al., 2019). Performance methods, style being applied by a coach may have both positive and negative influence on an athlete; therefore, it is important to understand what effect on athlete's motivation is made by coach's behaviour, personality and teaching style (Delrue, Soenens, Morbée, Vansteenkiste, & Haerens, 2019; Hanif & Mardesia, 2014).

Even though the correlation between coach's teaching style and athletes' motivation has been indirectly investigated in several research works (Hanif & Mardesia, 2014; Jõesaar et al., 2012; Karjane & Hein, 2015; Reynders et al., 2019), there is no unified answer to that issue. On the other hand, swimming is a very specific branch of sport where democratic methods of training may not always be effective. Having considered the said, a *relevant* scientific problem arises: what is the relationship between swimming coaches' performance style and trainees' motivation.

The research *hypothesis*: it is likely that the teaching styles employed by coaches may be related to the motivation for sport in their trainees.

The aim of this research is to investigate the relationships between manifestation of swimming coaches' training styles and their athletes' motivation for sport.

Literature Review

Sport is a complex activity where it is important to maintain a balance between good development of motor skills and maintenance of motivation (Weinberg & Gould, 2019). Therefore, the relationship between teaching methods and teaching styles is highly important. The style of sports pedagogue's training is usually understood as behaviour manifestation between authoritarianism as well as control and democracy. Specific teaching styles can occur in different places of this dichotomy.

M. Metzler (2011) has it that M. Mosston's works are often referred to when dealing with methods of physical training in contemporary comprehensive education institutions in various countries. M. Mosston has grouped the proposed ideas on teaching physical education into categories which are called the Mosston spectrum of teaching styles (Mosston & Ashworth, 2008).

The methods for physical education presented in the spectrum of teaching methods by M. Mosston suit for students attributed with different physical and social characteristics; therefore, they can be applied directly or separate elements of these methods can be used merging them to one method. Other researchers (Chatoupis & Vagenas, 2011; Sicilia Camacho & Brown, 2008) emphasise that

the spectrum of teaching methods proposed by M. Mosston may sufficiently well suit for the sports education environment.

The teaching methods according to M. Mosston's spectrum are the following: (a) command; (b) practise; (c) reciprocal; (d) self-check; (e) inclusion; (f) guided-discovery; (g) convergent; (h) divergent; (i) individual; (j) learner-initiated; (k) self-teaching.

M. Goldberger, S. Ashworth and M. Byra (2012) have it that the Mosston spectrum scale encompasses teaching methods: from the teaching methods characteristic of minimal decisions of learners to the teaching methods attributed with maximal decisions and autonomy of learners. One of the major ideas of the M. Mosston and S. Ashworth' (2008) spectrum is the goal to gradually transfer from the method "from a teacher-to a student" to the decision-making process, higher autonomy and personal responsibility.

Motivation, as a research object in sports science, is important due to several reasons. On the one hand, it significantly impacts the pace of development in sports and the sport result itself (Weinberg & Gould, 2019). On the other hand, methods of coaching, preparation, participation in competitions, coach's activities, various social circumstances make a significant effect on the manifestation of athletes' motivation and its structure (Hagger & Chatzisarantis, 2007; Jõesaar et al., 2012). These reasons greatly influence quite a large interest of researchers in the problem of motivation for sport.

Recently, several theories are widely employed to ground the explanations of motivation for sport and physical activity. The *self-determination theory* is one of the most popular (Ryan & Deci, 2018). In the *self-determination theory*, person's motivation and related behaviour are considered through the source where the decision is determined and controlled (Hagger & Chatzisarantis, 2007; Ryan & Deci, 2018). Basically, there can be two sources: intrinsic and external. Therefore, while learning, working or exercising sports, two kinds of motivation stand out: *intrinsic* and *external*. *The intrinsic motivation* is a wish to be effective and act for the activity sake. *The external motivation* is the striving for an external reward or a wish to avoid punishment (Ryan & Deci, 2018; Vallerand, 2007). According to the founders of this theory (Ryan & Deci, 2018), only in such activity or situation, where three major psychological needs (competence, autonomy and relatedness) can be satisfied, one can expect conditions of intrinsic motivation.

Methodology

The surveyed. The survey involved 148 young swimmers (78 boys and 70 girls) from several swimming sport schools in Lithuania. The age of young

athletes was 14–18 years, the average age was 15.3 ± 1.3 . The average duration of attending swimming training was 7.6 ± 2.2 years. Coaches ($N = 18$) of swimmers were surveyed, too. The age of coaches varied from 30 to 59, the average age was 44.1 ± 10.7 . Their coaching experience was 18.3 ± 10.7 years.

Measurements. Motivation of young athletes was measured by *The Sport Motivation Scale II* (SMS–II) (Pelletier, Rocchi, Guertin, Hébert, & Sarrazin, 2017; Pelletier et al., 2013). The scale was designed on the ground on the self-determination theory. This scale of motivation for sport comprises 18 statements divided into 6 sub-scales for each three: *Intrinsic Motivation*, *Integrated Regulation*, *Identified Regulation*, *Introjected Regulation*, *External Regulation*, *Amotivation*. Validation of the scale for the Lithuanian language met quite high standards. Cronbach α of single scales varied from 0.63 to 0.89. While responding to each statement, the surveyed had to choose answer options in the seven-point Likert scale from “completely disagree” (1) to “completely agree” (7). The analysis of the research results involved the operation with mean values of the sub-scales of the sport motivation scale.

To identify the teaching style of swimming coaches, a modified questionnaire designed by the University of Tartu scientists (description of teaching styles (Curtner-Smith, Todorovich, McCaughtry, & Lacon, 2001) was chosen. The questionnaire presents closed-type questions on application of different teaching methods (from reproductive to productive) in physical education, including examples. The questionnaire includes the following teaching methods: (a) command, (b) practise, (c) reciprocal, (d) self-check, (e) inclusion, (f) managing engagement, (g) divergent; (h) student's initiative. The methods a–e correspond to reproductive methods, whereas f–h correspond to productive ones. Responding to each statement, the surveyed had to choose answer options in the five-point Likert scale, from “I never apply” (1) to “I apply very often” (5).

Data analysis. In terms of their answers on manifestation of teaching styles, the coaches were divided into three types: *type 1* comprised stronger expressed productive teaching methods (relationship between productive and reproductive methods ≤ 0.94); *type 2* meant teaching methods of balanced manifestation (relationship between productive and reproductive methods 0.95–1.05); *type 3* was stronger expressed productive teaching methods (relationship between productive and reproductive methods ≥ 1.06). The young athletes were divided into groups according to the type of a coach. To analyse the research results, methods of descriptive statistics have been employed: mean (M), standard deviation (SD). Supposing that the correlation between the variables may be of a non-linear character, the testing of the research hypothesis employed the analysis of variance (ANOVA) (Berkman & Reise, 2011). The inter-group difference was significant when $p < 0.05$.

Research Results

Table 1 presents descriptive statistics and ANOVA results of the three groups. In majority of sub-scales on sport motivation, no significant influence from coach to trainees' motivation was found: *Intrinsic Motivation* ($F = 1.24$, $p > 0.05$), *Integrated Regulation* ($F = 0.27$, $p > 0.05$), *Identified Regulation* ($F = 2.44$, $p > 0.05$), *Introjected Regulation* ($F = 0.85$, $p > 0.05$) and *Amotivation* ($F = 1.37$, $p > 0.05$); significant influence on the young swimmers' motivation type *External Regulation* ($F = 3.57$, $p < 0.05$).

Table 1 Manifestation of Young Swimmers' Motivation Depending on the Type of Coach's Teaching Style

Motivation sub-scale	Group 1 X ± SD	Group 2 X ± SD	Group 3 X ± SD	F	p
Intrinsic motivation	5.57 ± 1.12	5.79 ± 0.82	5.33 ± 1.39	1.24	0.294
Integrated Regulation	4.81 ± 1.21	5.02 ± 1.22	5.13 ± 1.48	0.27	0.761
Identified Regulation	5.48 ± 1.12	5.48 ± 1.15	4.86 ± 1.22	2.44	0.095
Introjected Regulation	5.02 ± 0.87	5.42 ± 1.08	5.08 ± 1.36	0.85	0.431
External Regulation	3.60 ± 1.43	4.01 ± 1.86	2.92 ± 1.29	3.57	0.033
Amotivation	1.83 ± 0.98	2.50 ± 1.31	2.24 ± 1.34	1.37	0.262

Note: Group 1 comprised young swimmers whose coaches held stronger expressed reproductive teaching methods; *Group 2* included young swimmers whose coaches held equally expressed both reproductive and productive teaching methods; *Group 3* comprised young swimmers whose coaches held stronger expressed productive teaching methods.

Table 2 presents the results of comparison of pairs among the groups. Tukey's HSD test revealed only one significant inter-group difference in the sub-scale *External Regulation* ($p < 0.05$). Cohen's d identified the medium effect size (Cohen, 1988) in the following sub-scales: *Identified Regulation* (Group 1 vs. Group 3 ($\Delta = 0.62$, ES = 0.53) and Group 2 vs. Group 3 ($\Delta = 0.62$, ES = 0.52)), *External Regulation* (Group 1 vs. Group 3 ($\Delta = 0.68$, ES = 0.50) and 2 Group vs. Group 3 ($\Delta = 1.09$, ES = 0.68)), *Amotivation* (Group 1 vs. Group 2 ($\Delta = -0.67$, ES = 0.58)). It is worth noting that the effect size of the *Intrinsic Motivation* was small in three compared pairs and varied from 0.19 to 0.40.

Table 2 Inter-group Comparison of Young Swimmers' Motivation Depending on the Type of Coach's Teaching Style

Motivation sub-scale	Tukey's HSD test			Cohen's <i>d</i> effect size		
	Group 1: Group 2	Group 1: Group 3	Group 2: Group 3	Group 1: Group 2	Group 1: Group 3	Group 2: Group 3
Intrinsic motivation	0.815	0.793	0.262	0.22	0.19	0.40
Integrated Regulation	0.872	0.740	0.945	0.17	0.24	0.08
Identified Regulation	1.000	0.247	0.109	0.00	0.53	0.52
Introjected Regulation	0.545	0.987	0.511	0,41	0.05	0.28
External Regulation	0.694	0.396	0.026	0.25	0.50	0.68
Amotivation	0.235	0.596	0.704	0.58	0.35	0.20

Note: Group 1 comprised young swimmers whose coaches held stronger expressed reproductive teaching methods; *Group 2* included young swimmers whose coaches held equally expressed both reproductive and productive teaching methods; *Group 3* comprised young swimmers whose coaches held stronger expressed productive teaching methods.

Discussion

The aim of this research was to investigate the relationships between manifestation of swimming coaches' teaching style and their athletes' motivation for sport.

The self-determination theory is gradually more often employed to understand motivation for exercising sports, drilling as well as different effects on education and physical training processes (Hagger & Chatzisarantis, 2007; Grajauskas & Razmaitė, 2017; Pelletier et al., 2013; Ryan & Deci, 2018 etc.). Scientists put it that sports pedagogues who give athletes more autonomy, maintain favourable mutual relationships and acknowledge competence can stimulate intrinsic motivation for sport (Vallerand, 2007). When providing at least several options to athletes to choose physical activities, athletes' intrinsic motivation for sport in being encouraged, meeting basic psychological needs (Cuevas et al., 2016). On the other hand, setting pressure on athletes and controlling their behaviour, sports coaches do not contribute to satisfaction of their basic needs of autonomy, competence and mutual relationships (Pelletier et al., 2013).

Employing the self-determination theory, the researchers are usually interested in two different performance styles of sport pedagogues: autonomy-supporting and controlling (Delrue et al., 2019; Karjane & Hein, 2015). Maintaining autonomy, coaches acknowledge athletes' feelings and prospects as well as allow them to take part in the decision-making process; whereas those who

use the controlling style hold the style which is highly characteristic to the autocratic relationship style (Mageau & Vallerand, 2003).

The research hypothesis stating that it is likely that the teaching styles employed by coaches may be related to the motivation for sport in the trainees has been proven only partly. It was found out that independently of manifestation of the performance style of swimming coaches (whether it is oriented to autonomy or control) intrinsic motivation for sport in the trainees did not differ. However, the coach's style of teaching correlated to external motivation. In other words, coaches who were applying reproductive, i.e. more controlling teaching methods (command; practise; reciprocal; self-check; inclusion), more frequently motivated their athletes more externally. Moreover, similar results in slightly different contexts were obtained earlier (Amorose & Anderson-Butcher, 2015; Hanif & Mardesia, 2014).

Grounding on the obtained research results, an assumption can be drawn that perhaps the specific character of the swimming sport branch is the reason to it. Complexity of organisation of training swimming is basically determined by the time spent in the water constituting the largest part of exercising, and sports pedagogues must apply as diverse teaching methods as possible. Traditionally, the teaching of swimming is based on the methods of "command", when a coach renders information and a swimmer reproduces it, without assessing psychological variables included in teaching, learning and assessment (Merono, Calderon, & Hastie, 2016). During swimming competitions, the method when a coach assigns tasks and controls the process of their completion usually prevails. And this is quite natural in such sports branches which require complex motor coordination, such as a swimming.

Swimming coaches performed self-identification of their teaching style dominating in their performance according to teaching methods they employ. According to the obtained research results on manifestation of self-identification in terms reproductive and productive methods, three types were singled out. Limitation of the research would emphasise that coaches identified their teaching styles themselves but not by their trainees. To our mind, this aspect would supplement the investigation with more objective data. Seeking to expand the limits of questionnaires used in the research, it would be helpful to carry out an investigation in a slightly larger sample of the surveyed and with more diverse levels of sports excellence swimmers in the future. Moreover, the research results could be analysed in the contexts of coaches' sex, work experience, trainees' achievements in sports.

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THE DYNAMICS OF INDICATORS OF PSYCHO-EMOTIONAL CONDITION OF COLLEGE STUDENTS, INFLUENCED BY TEAMBUILDING TECHNIQUES

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Abstract. Specialists say that the issue of understanding of influence mechanism of physical activity on psychological health of children and teenagers is not investigated thoroughly. This concerns primarily college students, for their age equals to that of high school pupils. Psycho-emotional processes in the students' consciousness and behavior at that age are caused by the end of biological and physical development and adaptation to new conditions of studying and living. Our previous research allowed us to determine the condition and dynamics of psycho-emotional indicators during the first academic year against the background of low physical activity. The question of how particular physical activity influences the dynamics of these indicators among college students remains to be unanswered. The aim of the research is to determine the dynamics of indicators of psycho-emotional condition among 15–16 years old students from Medical College. Research methods and techniques like analysis and generalization of scientific literature, documentation, pedagogical observation, SAN and mathematical statistics were applied. The results of the research. Any reliable changes towards either more positive or negative side have not been detected among students from Experimental Group (EG), though indicators of well-being and mood of students from Control Group (CG) have considerably decreased ($p \leq 0,05$) during the pedagogical experiment. The reliable deterioration of the CG students' well-being from have been noticed in comparison with the EG students on the 2nd stage of the experiment. The conclusions. The data obtained from the pedagogical experiment have proved the positive effect of implementation of team-building techniques into physical education of college students on their psycho-emotional condition indicators.

Keywords: *physical education, psycho-emotional condition, students, team-building technique.*

Introduction

Regular physical activity is an essential element of healthy lifestyle and it is, unquestionably, the key component of keeping and improving students' health (Antonov, 2013; Zavydivska & Khanikiants, 2016; Gieroba, 2019). Specialists state that regular motor activity is a key factor in forming physical as well as psychological human health (Khanikiants, 2011; Zavydivska O., Zavydivska N., Khanikiants & Rymar, 2017; Solovei, Rymar, Yaroshyk, & Sorokolit, 2017). However, it is clear that the issue of understanding of influence mechanism of physical activity on psychological health of children and teenagers is not investigated enough and requires further research. The impact of motor activity has special value in the period when a teenager begins to study in college as a student, because their age in first academic years in college equals to that of high school students. Complex psychological processes in students' consciousness and behavior at such age, psycho-emotional feelings that relate to the ending of biological and physiological development and with adaptation to new conditions of studying and living, are manifested through their psycho-emotional condition (Semenova & Mahlovanyi, 2015; Semenova & Mahlovanyi, 2017). However, specialists mention (Romanovskiy, Shapovalova, Kvasnyk, & Gura, 2017; Kondratets, 2019; Gieroba, 2019) that low level of motor activity among adolescents and youth pushes specialists to search and implement modern, innovative techniques into physical education that could increase the level of interest towards it and facilitate favorable health condition, particularly its psychological (psycho-emotional) domain.

Nowadays team-building in Ukraine is being applied mainly as the means to form efficient cooperation in business, human resources management and sparsely among pedagogical groups (Semenova, 2015; Yachniuk, 2016; Bodnar et al., 2018). Its implementation in physical education classes, sport, health, and recreation activity of students' youth is one of perspective and innovative options, yet not being investigated enough (Nikifirova & Bilokon, 2012; Rymar & Solovei, 2015).

Previous research of psycho-emotional condition of students from Medical College at Danylo Halytskyi Lviv National Medical University allowed to determine the condition and dynamics of psycho-emotional indicators during the first academic years (Semenova & Mahlovanyi, 2015; Semenova & Mahlovanyi, 2017). Psycho-emotional condition has been studied by several scientists who interpret it as a complex phenomenon which consists of cognitive, evaluative, and emotional domains (Khoroshilove & Hilger, 2019). However, the question

of how particular physical activity or developed techniques influence the dynamics of indicators of psycho-emotional condition of college students remained unanswered. We suggest that applying team-building techniques during physical education classes will facilitate better students' adaptation to studying in college and will increase the level of interest towards physical education classes and sport. As the result of this approach psycho-emotional indicators are supposed to improve.

The goal of the research is to determine the dynamics of indicators of psycho-emotional condition among 15–16 years old students of Medical College during the term influenced by the developed and implemented team-building technique.

Methodology

To achieve the determined goal such methods like analysis and generalization of scientific literature and documentation (attendance lists), pedagogical observation, SAN method, mathematic statistics criteria (Student's t-criteria for independent samples) were applied

The statistical analysis of the results has been performed using Microsoft Excel. Such statistical characteristics as arithmetic mean (X), standard error (m), the minimum value (X_{min}) and the maximum value (X_{max}) have been determined in the research.

The pedagogical experiment took place during spring term of 2018–2019 academic year. There were 37 students aged 15–16 from Medical College of Danylo Halytskyi Lviv National Medical University. The students were divided into two groups: The Control Group (CG, $n=17$) that were following typical standard program of physical education, and the Experimental Group (EG, $n=20$) that were performing various tasks, exercises, games and relays, based on team-building technique during 20 minutes at every physical education lesson. This optional part was indicated in the physical education program and was performed in accordance with educational program in both groups. The implementation of the developed team-building technique must facilitate trust, coherence of actions, mutual assistance, and effective collaboration in the groups through mutual solving of targeted tasks.

The investigation of indicators of students' psycho-emotional condition was performed applying SAN method (where S (*samopochuttia*) stands for well-being, A (*aktyvnist*) stands for activity, N (*nastriy*) stands for mood), which was developed and implemented in 1973 by a group of scientists (Doskin, Lavrentieva, Miroshnikov & Sharai, 1973). This method is applied to evaluate psycho-emotional human condition in the exact moment of the research. Students are to evaluate their condition regarding a number of features on a

multi-level scale. The scale consists of indices (3 2 1 0 1 2 3) located between 30 pairs of words of opposite meaning, reflecting the speed and pace of functions (activity), strength, health, fatigue (well-being), as well as the characteristics of the emotional state (mood). The method is basically a map (a table) that consists of 30 pairs of opposite characteristics that reflect the investigated specifics of psycho-emotional condition (well-being, activity, and mood). The students are asked to choose the characteristic in a pair that would best reflect their condition and to choose a number that would represent the level of expression of that characteristic. The total quantity of those numbers lies between 10 and 70 points for each criteria. If the evaluated characteristics gets 40 points and more it is interpreted as a favorable condition of the participant and are evaluated as an average result. Those less than 40 points are considered unfavorable and are evaluated as low estimates of the participants' condition. The points between 50 and 70 are evaluated as high estimates of the participants' conditions.

Results and Discussion

The results obtained allow to confirm that average value of well-being (as the state of feeling healthy and happy), activity and mood of first-year college students from both groups reflected average and high levels in the beginning and in the end of the term.

The well-being indicators of EG students are between 36–66 points in the beginning of the term and 40–64 points in the end of the term. The activity indicators are 27–54 points in the beginning and 22–55 points in the end of the term, the mood indicators vary between 47 and 68 points in the beginning and between 43 and 69 points in the end of the term.

The well-being indicators of CG students vary between 25 and 64 points in the beginning of the term and 28–59 points in the end of the term. The activity indicators are 33–62 points in the beginning and 26–60 points in the end of the term, the mood indicators are 13–68 points in the beginning and 30–68 points in the end of the term (Table 1).

Table 1 The Evaluation of Well-being, Activity and Mood (points) by Students

Indicators	Stages	CG(n=17)		EG(n=20)	
		X _{min}	X _{max}	X _{min}	X _{max}
Well-being	I	25	64	36	66
	II	28	59	40	64
Activity	I	33	62	27	54
	II	26	60	22	55
Mood	I	13	68	47	68
	II	30	68	43	69

Self-evaluation of students' own psycho-emotional condition in the beginning of the term determined that two students evaluated their well-being state as low as well as 5 students found their activity state low. There were no students from the EG, who evaluated their well-being level with low points during the term. The mood indicators did not change during the pedagogical experiment. However, number of high evaluation points increased both for well-being and activity indicators.

The analysis of self-evaluation of CG students' well-being showed the increase of low points evaluations. The quantity of those who evaluated their well-being state as average also increased. The number of CG students who evaluated their well-being with high points have decreased two times from 10 to 5 (Table 2).

Table 2 The Dynamics of Psycho-emotional Indicators of Students' Well-being, Activity and Mood (SAN method)

		Low		Average		High	
		I stage	II stage	I stage	II stage	I stage	II stage
Well-being	CG	2	5	5	7	10	5
	EG	2	0	6	6	12	14
Activity	CG	5	4	10	9	2	4
	EG	5	5	11	9	4	6
Mood	CG	3	3	2	7	12	7
	EG	0	0	3	3	17	17

The attendance lists and students' participation in physical education lessons show negative tendency among the CG students (who were having classes according to typical physical education program). Thus, in the beginning of the term 89% of those attending the lessons were actively taking part in physical exercises during each lesson. During the term, however, this indicator decreased to 67%. Meanwhile not less than 88% of the EG students showed high activity in performing physical exercises during the whole term. Attendance among the EG students was on average consistently at the level of 90%.

The analysis of data of psycho-emotional condition according to the SAN method shows some improvement of EG students' well-being indicators during the term. The same tendency is noticed in the activity indicators; they have grown up from 42.62 ± 7.11 points to 43.10 ± 9.57 . A little deterioration is observed in the mood indicators. Thus, from 60.70 ± 7.26 points they decreased to 58.95 ± 7.34 . However, the reliable changes were not found out among students from the EG during the term.

The well-being indicator has decreased significantly from 49.82 ± 8.74 to 44.35 ± 9.82 points ($p \leq 0.05$) in the control group during the term. The well-being

indicators between groups did not vary significantly at the beginning of the experiment, however, this indicator has grown among the EG students from 52.3 ± 8.05 points to 53.70 ± 7.35 during the term. Though, the result in the CG is as follows: it has decreased from 49.82 ± 8.74 to 44.35 ± 9.82 points that shows reliable difference between indicators from EG and CG groups on the second stage of the experiment ($p \leq 0.05$).

The CG students' activity level during the term did not get any significant changes. The indicator was at the level of 42.82 ± 7.26 at the beginning of the experiment and has grown a little in the end (43.71 ± 9.55 points). The reliable deterioration has occurred for the mood indicator among students from the CG during the term ($p \leq 0.05$) (Table 3).

Table 3 Well-being, Activity and Mood (SAN method) Indicators of Students from the EG and CG on the Different Stages ($X \pm m$)

Psycho-emotional indicators	I stage		II stage	
	EG	CG	EG	CG
Well-being	52.3 ± 8.05	49.82 ± 8.74	53.70 ± 7.35	$44.35 \pm 9.82^{***}$
Activity	42.62 ± 7.11	42.82 ± 7.26	43.10 ± 9.57	43.71 ± 9.55
Mood	60.70 ± 7.26	$53.18 \pm 14.36^{**}$	58.95 ± 7.34	$50.24 \pm 11.62^{*****}$

Notes: *-reliable difference between indicators inside the group, ($p \leq 0.05$)

** - reliable difference between indicators from the EG and CG, ($p \leq 0.05$)

*** - reliable difference between indicators from the EG and CG, ($p \leq 0.01$)

The results obtained from the investigation of psycho-emotional students' condition, applying the SAN method, indicate that average values represent moderate and high level of evaluation of students' own well-being, activity, and mood during the term in both groups. Such results are like those obtained in previous researches. However, we have noticed the deterioration of the well-being and mood indicators among CG students during the term. The observation of these indicators dynamics allowed to determine the reliable difference inside the group as well as between the CG and the EG.

Conclusions

The analysis of attendance lists and students' participation in the physical educational lessons helped to determine the negative tendency among students from the CG that were studying according to typical physical education program and stable enough attendance of students from the EG (not less than 90% of total

number of students in the group) and active participation during the lessons (not less than 88% of those attending classes).

The results of the pedagogical experiment indicate the positive influence of the implemented technique on the indicators of psycho-emotional condition of the students from the EG according to the SAN method. Classes with team-building techniques applied have facilitated keeping psycho-emotional condition indicators of students from the EG close to the initial results obtained on the first stage without reliable changes to either way. On the other hand, the well-being indicator has decreased significantly from 49.82 ± 8.74 to 44.35 ± 9.82 points ($p \leq 0.05$) among the CG students. The decrease in the mood indicator among the CG students was observed.

The results of the pedagogical experiment indicate positive influence of the implemented team-building technique on the indicators of psycho-emotional condition according to the SAN method.

Conflict of interest. The authors declare there is no conflict of interest.

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ANALYSIS ON CLASSIFICATION OF FOOTBALL TECHNIQUE

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Abstract. *Football is a situation sport where football players are characterized by a great variety and complexity of activities during the game, both in contact with the opponent and in the immediate vicinity of the opponent, while cooperating with other teammates. Sports scientists and coaches need to find out more about the set of techniques, its diversity and the amount of technique in top level football games in order to guide the optimal planning and implementation of the training process in the technical training of football players. Due to the diversity of techniques used by football players, there are different approaches to the classification of these techniques. However, it is very important to group all techniques according to their common features in order to adequately assess the structure of a football game, its development tendencies and issues. Research aim: to compare and analyse the essence of the classification of football technique and its development tendencies. Research methods: analysis of scientific articles (electronic scientific databases ScienceDirect, Google Scholar), search keywords – football, football technique, classification of football technique. Main results of the research: two main approaches dominate in the classification of football technique: the technique approach and the game approach. Initially, football technique was mainly grouped by taking into account the player's actions with or without the ball, the level of difficulty of the technique element, the role of the players and the player's actions on the spot or in motion. As football develops, football technique is classified by taking into account the effectiveness of its application in specific tactical situations.*

Keywords: *classification of football technique, football, football technique.*

Introduction

The analysis of the classification of football technique is important for sport specialists to research about the set of techniques, its diversity and the amount of technique in top level football games in order to guide the optimal planning, implementation of the training process and qualitative assessment in the technical training of football players. Classification is a logical analytical operation, where phenomena are divided into groups and subgroups according to their common or similar features, while the basic elements of each classification are their

theoretical connection, basic elements and criteria. There are two different and significantly diverse types of classification, those that reflect structural organization and those that systematically reflect historical developments. Sports can be classified, for example, according to type and intensity: football is characterized by low static and high dynamic (Mitchell et al., 1994) and football is an intense multi-directional and intermittent field sport (Lupo et al., 2019). The main purpose of classification is to describe the structure and connections of similar object groups, as well as the achievement of practical goals (Sokal, 1974), for instance, a computerized data specification for classification to improve objectivity, for example, to study pass properties that may affect classification and then apply the developed classification to obtain quantitative measurements of performance (Horton et al., 2014).

The view on the use of the term “technique” in the scientific literature in sport is very often not precisely defined, while the notion of “technique” has a diverse meaning. Very often this term is taken for granted and, therefore, it is very difficult to describe and express it in measurable terms. Already in 1982, N. Ozoliņš has defined technique as the most rational and efficient execution of movements in order to achieve the highest results. However, in 1983, technique is defined in sports games as a movement or part of a movement, which purposefully allows to perform actions in attack or defence with sufficient quality during the game, taking into account the ideal model (Bös & Mechling, 1983). The most common definitions of “technique” in scientific literature do not indicate how a “technique” can be measured, but at the same time characterize “technique” with variables that can be visually perceived (Lees, 2002). Technique can also be described as any sport skill that has a certain way of solving a movement task (sport skill content) in accordance with the rules of the respective sport, the athlete’s biomechanical conditions and movement possibilities (Zahradník & Korvas, 2017). Thus, movements can be classified according to their purpose (Bartlett, 2014).

Qualitative assessment of movements requires that professionals are able to simultaneously integrate a wide range of information on the technical performance of athletes, as well as have sufficient knowledge of the athlete and his/her movements in context (Knudson, 2013), as a player’s performance in football is determined by technical and tactical skills (Bangsbo, 1994). Technical skills include the player’s actions on the field without the ball (locomotive action) and with the ball in a certain position on the field (Andersson et al., 2008; Bradley et al., 2007, 2011). Qualitative assessment of movements involves the identification of all factors that affect an athlete’s performance and the determination of the most important influencing factor in order to further improve an athlete’s performance (Knudson, 2013), as in practice football players need to promote a wide arsenal of technique, which could be used during the game

(Esposito et al., 2019). A skilled football player is able to manage a larger number of possible technical-tactical actions in a shorter time and is able to choose the most optimal possible variants of technique application during the game (Gonzalez-Villora et al., 2015).

Research aim: to compare and analyse the essence of the classification of football technique and its development tendencies.

Research Methodology

In order to compare the essence of the classification of football technique and its development tendencies, a systematic search and review (Booth, Sutton, & Papaioannou, 2016) of scientific articles was conducted in two electronic databases of scientific literature – Science Direct and Google Scholar. The inclusion criteria for study selection: the article was written in Latvian, English, Russian. Keywords used for the search – football, football technique, football technique classification (Andersson et al., 2008; Bradley et al., 2007, 2011) in the previously mentioned languages. The period covered by the research is from 2000 to 2020. The search process was repeated nine times, using each keyword. As a result, 11 sources were analysed in depth.

Research Results

Literature search	
Databases: Science Direct (SD), Google Scholar (GS)	
Inclusion criteria: articles in Latvian (LV), English (EN) and Russian (RUS) only	
1. No. of records identified through the search "football" (GS) (n= 136 (LV), n=1 970 000 (EN), n=107 000 (RUS))	1. No. of records identified through the search "football" (SD) (n= 0 (LV), n=26 293 (EN), n= 0 (RUS))
2. No. of records identified through the search "football technique" (GS) (n= 69 (LV), n=931 000 (EN), n=15 500 (RUS))	2. No. of records identified through the search "football technique" (SD) (n= 0 (LV), n= 15 171 (EN), n=0 (RUS))
3. No. of records identified through the search "football technique classification" (GS) (n= 31 (LV), n= 135 000 (EN), n= 8 600 (RUS))	3. No. of records identified through the search "football technique classification" (SD) (n= 0 (LV), n= 4 209 (EN), n= 0 (RUS))

Figure 1 The Process of Systematic Search (by the Authors)

The results of the research show that the majority of the information in the Science Direct and Google Scholar databases in the field of football is available in English $n=1\,996\,293$, using the keyword “football” (see Fig. 1). Moreover, by entering the keyword “football technique”, the amount of available information already decreased by $n=1\,050\,122$ units. Furthermore, by entering the keywords “football technique classification”, the amount of available information further decreased by $n=910\,913$ units.

When evaluating the articles in the databases by using the keywords “football technique classification”, identical articles were identified, which were not considered further, as well as the types of technique classification were repeated in most articles. Therefore, 11 articles were selected for further analysis.

The selected research in the Science Direct database mainly reflect the classification of football technique in action with the ball. The aim of the first research (Zambom-Ferraresi, Rios, & Lera-Lopez, 2018) was to show that computer driven mathematical and recent statistical modelling methods employing past statistics data can be used to provide European football teams’ managers with additional information to improve their hiring decisions (Table 1). Based on the results of the research, it can be concluded that football technique can be classified by effectiveness as a feature and that football player movements in attack are more important than player movements in defence for team effectiveness in the game, but football team capacity is negatively affected by defence action indicators, for instance, allowed goals. In this research, the authors also classify technique based on game tactics, for example, attack and defence football technique. The aim of the next research (Modric, Versic, & Sekulic, 2020) was to identify associations between aerobic fitness (AF) and game performance indicator (GPI) in elite football (Table 1). In this research, in order to determine the game performance, football technique is already classified according to the players’ positions: central defenders’ technique, fullbacks’ technique, central midfielders’ technique, wingers’ technique, forwards’ technique. Furthermore, the aim of the third research (Li, Ma, Goncalves, Gong, Cui, & Shen, 2020) was to apply a state-of-the-art algorithm to the ranking of CSL teams and exploitation of key performance features in relation to match outcome based on massive match dataset. In order to determine the basic indicators of game performance, technique is classified according to the effectiveness of the technique in tactics: attacking technique, organizing technique, defensive technique (Table 1). In general, the mentioned research look at the efficiency of the technique, which is characterized by its compliance with the set tasks and the achievement of a high end result.

Table 1 The Most Characteristic Classification of Football Technique in Database Science Direct (by the Authors)

Author/s, Year	Research Aim	Feature of Football Technique Classification and Technique Elements
Zambom-Ferraresi, Rios, & Lera-Lopez (2018)	The present study aims to show that computer driven mathematical and recent statistical modelling methods employing past statistics data can be used to provide European football teams' managers with additional information to improve their hiring decisions	Classification feature – effectiveness assurance in the game , where effectiveness is increased by: the assists, the saves made by the goalkeeper, the number of precise passes with respect to the total number of passes, the shots on target and the number of blocks, clearances, and interceptions. Effectiveness is decreased by: defence technique (shots conceded). Classification feature – game tactics . Attack football technique: Shots, Shots on Target, Passes, Assists, Crosses, Corners Taken, Dribbles, Runs, Long Pass, Through Ball. Defence football technique: Shots, Tackles attempted, Tackled possession retained, Recoveries, Clearances, blocks, interceptions, Saves made, Catches.
Modric, Versic, & Sekulic (2020)	The aim of this study was to identify associations between aerobic fitness (AF) and game performance indicator (GPI) in elite football	Classification feature - specific playing positions : Central defenders' technique: tackling, aerial duels, set pieces in defence, interceptions. Fullbacks technique: crosses, passes to the penalty area, pressing. Central midfielders' technique: playmaking, key passes, finishing. Wingers technique: pressing, dribbling, finishing, counterattacking. Forwards technique: shooting, finishing, pressing, and dribbling.
Li, Ma, Goncalves, Gong, Cui, & Shen, (2020)	The study was aimed to apply a state-of-the-art algorithm to the ranking of CSL teams and exploitation of key performance features in relation to match outcome based on massive match data-set.	Classification feature – technique effectiveness in tactics : Attacking technique: Shots and Shots on target; Organizing technique: Passes, Passes success and Crosses; Defensive technique: Tackles, Interceptions and Clearances.

The selected research in the Google Scholar database reflect the classification of football technique in action both with and without the ball. The aim of the first research (Hughes, Caudrelier, James, Redwood-Brown, Donnelly, Kirkbride, & Duschesne, 2012) was to use the unique opportunity of a large number of performance analysts coming together to discuss this problem and its application to soccer, and define sets of performance indicators for each position in soccer. In this research, football player technique is classified according to the players' position in attack and defence, which indicates the use of the game approach features in technique classification. Classification feature - specific playing positions in game tactics, where *attack football technique*:

Goalkeepers: shot stopping, recovery speed, save, punch. *Full Backs*: tackle, interception – anticipation, dribbling, running with the ball, clearance, defensive header. *Centre Backs*: passing, heading, running with the ball, support play, dribbling, crossing, shooting. *Holding Midfield*: passing, running with the ball, dribbling, support play, crossing, shooting, heading. *Attacking Midfield*: passing, running with the ball, dribbling, support play, crossing, shooting, heading. *Wide Midfield*: passing, running with the ball, dribbling, support play, crossing, shooting, heading. *Strikers*: tackle, pressing, opposition interception – anticipation, heading.

Defence football technique: *Goalkeepers*: passing, throw, ball control with feet, kick, tackle. *Full Backs*: tackle, pressing, opposition interception – anticipation, clearance, defensive header. *Centre Backs*: tackle, defensive header, pressing, opposition interception – anticipation, clearance. *Holding Midfield*: tackle, pressing, opposition interception – anticipation, heading. *Attacking Midfield*: tackle, pressing, opposition interception – anticipation, heading. *Wide Midfield*: tackle pressing, opposition cover full-back, interception – anticipation, heading.

Strikers: shooting, heading, reception, dribbling, passing, running with the ball, support play, crossing.

In turn, the next research (Drust, Atkinson, & Reilly, 2012) has attempted to contextualise the available research that has attempted to evaluate the physiological demands of soccer on the basic–applied research continuum (Table 2). In this research, football player technique is classified according to the players' movements of moving (locomotion), i.e. the players' action without the ball.

Table 2 The Most Characteristic Classification of Football Technique in Database Google Scholar (by the Authors)

Author/s, Year	Research Aim	Feature of Football Technique Classification and Technique Elements
Drust, Atkinson, & Reilly (2012)	This article has attempted to contextualise the available research that has attempted to evaluate the physiological demands of soccer on the basic-applied research continuum.	Classification feature – players' movements of moving: Locomotion of players: move backwards or sideways during play, a shuffling gait, 'jockey' for position to match the movements of their markers or they 'spin away' from their markers into clear space to secure a tactical advantage. Runs: diagonal or angled to outwit defensive lines, accelerate or decelerate quickly and over short distances.
Atiq, Tangkudung & Mulyana, (2017)	The research aimed to develop basic technique drill using Play-based training for beginner athletes in the age of 8-12 years old in football schools in Universitas Diponegoro and Djarum Kudus.	Classification feature – type of player movements: Basic technique: passing, dribbling, heading, shooting.
Kokstejn & Musalek (2019)	The aim of this study, therefore, was to investigate the relationship between fundamental motor skills and game specific motor skills in elite young football players.	Classification feature – type of player movements: Fundamental motor skills: manipulative, running, jumping, catching, throwing. Game specific motor skills: receiving, passing, shooting, and dribbling.
Lupo, Ungureanu, Varalda & Brustio (2019)	The present study aimed at comparing the effects of these two training approaches on prepubescent soccer players' sprint performances.	Classification feature – type of player skills: Technical skills: passing, dribbling and kicking, ball possession. Tactical skills: running without the ball.
Maneiro, Casal, Arda, & Losada, (2019)	The aim of the present study was to search for different success models for the corners in the FIFA World Cup 2014 and FIFA Women's World Cup 2015.	Classification feature – corner kick efficiency: Offensive performance: shot, shot between the three posts, goal.

To improve the football technique classification theory by studying the fundamental skills and special skills in football (Yang, 2014), the author considers various features of football technique classification: type of difficulty of player movements, structure of player movements, type of player movements, specific playing positions in game tactics, game tactics. Classification feature – type of difficulty of player movements: fundamental techniques: kicking, catching and dribbling; special technique: pendulum passing, leg scissors interception. Classification feature – structure of player movements: single technique movements, combined techniques movement. Classification feature – type of player movements: with-ball techniques, without-ball techniques. Classification feature - specific playing positions in game tactics: *technical movements of locations of forward and back players*: with ball (kick, catch, dribble, head, scramble, intercept, throw-in), without ball (start, run, sudden stop, turn around, jump, foot work); *technical movements of locations of goalkeepers*: with ball (deflect ball, pounce/rush shot, punch set-up throw, kick), without ball (start, run, sudden stop, turn around, jump, foot work). Classification feature – game tactics: *attack movements*: catch technique, dribbling technique, passing technique; *defence movements*: snatch technique, intercept technique.

However, in the research on the development of basic technique drill using Play-based training for beginner athletes in the age of 8-12 years old in football schools (Atiq, Tangkudung, & Mulyana, 2017), technique is classified according to the type of player movements – basic technique (Table 2).

Also, in the research on the relationship between fundamental motor skills and game specific skills in elite young soccer players (Kokstejn & Musalek, 2019), the authors classify (Table 2) player technique according to the type of players' movements, distinguishing between fundamental and game specific motor skills.

In turn, in the research (Lupo, Ungureanu, Varalda & Brustio 2019) on whether or not running technique is more effective than soccer-specific training for improving the sprint and agility performances with ball possession of prepubescent soccer players, the authors classify technique taking into account the type of player training – technical and tactical training (Table 2). However, in the research (Maneiro, Casal, Arda, & Losada, 2019) “Application of multivariate decision tree technique in high performance football: the female and male corner kick”, the authors have identified corner kick efficiency features during attack.

By classifying according to the type of player movements (Nosaeva & Mihajlov, 2020), a distinction can be made between basic technique methods of movement and basic technique methods in action with the ball. Classification feature – type of player movements: *basic technique of movement*: running, stopping at a step, jumping with a push of one leg, turning towards the supporting leg; *basic technique in action with the ball*: receiving the ball (carrying out a body

link towards the ball and yielding movement, stopping a falling ball after a rebound - covering the ball, dribbling changes in speed and direction of movement with the ball, sequence of actions with the ball, hitting the ball with the head and throwing in the ball with hands - whipping with legs, torso and arms, hitting on the ball with a leg - rigid fixation of the leg in all joints at the moment of impact. Kicks on the ball: with a swing and a whip; without a swing; without swing and whip). Hits on the ball with the middle of the instep and the inside of the foot, dribbling the ball with the middle of the instep, stopping the falling ball with the sole, "removing the ball with the inside of the instep", stopping the rolling ball with the inside of the foot feints "false stop of the ball", "feint with the torso", "false swing", hitting the ball flying towards the middle of the forehead.

Taking into account the previously defined features of classification (type of difficulty of player movements, structure of player movements, type of player movements, specific playing positions in game tactics, game tactics, type of training), they characterize technique as a football skill, which has a defined football skill content and can be broadly referred to as the technique approach.

However, if technique is classified according to its efficiency and effectiveness (effectiveness assurance in game, corner kick efficiency, technique effectiveness in tactics), i.e. suitability and relevance to the achievement of the aim, it is characterized by the game approach.

The development of football technique classification can be described as a gradual transition from the technique approach to the game approach. Using the technique approach, football technique was mainly grouped according to the player's action with or without the ball, the level of difficulty of the technique element, the players' role and the player's action on the spot or in motion.

Discussion and Conclusions

The results of the research show that technique classification in the game approach is mainly the application of the developed classifications (Horton et al., 2014) in order to obtain quantitative measurements of performance, for example, indicators assuring effectiveness in the game (Zambom-Ferraresi et al., 2018), corner kick efficiency (Maneiro et al., 2019), technique effectiveness in tactics (Li et al., 2020). Thus, providing a qualitative assessment of movements and the identification of the most important influencing factor (Knudson, 2013) in order to further improve the training process and the performance of football players.

From the point of view of sport science, the results of the research show an explanation of the essence of the game approach in football technique classification in the context of football technique efficiency and effectiveness. Where the technique effectiveness is an integral indicator, as it is determined by

its efficiency, stability, variability, economy, and minimal tactical informativeness to the opponent.

Research limitations: a systematic literature search and review was performed by selecting two databases – Science Direct and Google Scholar. The selected keywords and the order of their application can be considered as limitations to systematic search and they provided the previously mentioned results. The authors assume that if they had used other databases and other keywords and / or used them in a different order, the results of the research would have been different. The research can be continued by conducting a systematic literature search and review, selecting other scientific databases.

Main conclusions: initially, football technique was mainly grouped by taking into account the player's actions with or without the ball, the level of difficulty of the technique element, the role of the players and the player's actions on the spot or in motion. As football develops, football technique is classified by taking into account the effectiveness of its application in specific tactical situations.

The development trends of football technique classification also reflect the implementation of didactic principles of football technique acquisition, for instance, gradual increase of difficulty, ensuring the interrelation and unity of the competition activity structure and training activity structure.

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THE INFLUENCE OF BOXING EXERCISES ON THE COGNITIVE PROCESSES AND SPEED OF SENSORIMOTOR REACTIONS OF 15-17 YEARS OLD BOYS

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Abstract. *The article is dedicated to studying of the influence of boxing trainings on thinking processes of the process of physical education and speed of sensorimotor of 15-17 years old boys. The goal of the research is optimization process of the physical education and improvement of the cognitive processes of 15-17 years old boys. The methods of the research are methodological literature analysis, psychophysiological reaction testing, applying computer complex, pedagogical experiment and mathematical statistics methods. It was proved that boxers have better ability to fast reacting ($t=2.513$ with $p<0.05$), higher indicators of functional level of central nervous system ($t=3.165$ with $p<0.05$), stability of reaction ($t=2.248$ with $p<0.05$), better indicators of average reaction time with sound and visual interferences ($t=3.104$ with $p<0.05$), better indicators of attention capacity ($t=2.317$) with $p<0.05$). Attention diversification ($t=2.793$ with $p<0.05$), that prove positive impact of boxing exercises on the thinking processes. There was implemented author program, applying no-contact special boxing exercises. There were 30 students, 15-17 years old, in the experiment. The indicators of the average time of the reaction (Wilcoxon criteria $T.emp.=144$ with $p<0.05$) and stability of reaction (Wilcoxon criteria $T.emp.=133$ with $p<0.05$) become better after the experiment. Other indicators like indicators of average reaction time with sound and visual interferences (Wilcoxon criteria $T.emp.=112$ with $p<0.05$), indicators of attention capacity (Wilcoxon criteria $T.emp.=61.5$ with $p<0.05$) and indicators of attention diversification (Wilcoxon criteria $T.emp.=7$ with $p<0.05$) become better as well. The*

conclusions are: the results of the research prove the effectiveness of the experimental program.

Keywords: *boys, boxing, physical education, thought processes.*

Introduction

In the settings of global changes in the present, successful academic and professional life strongly depend on development of memory, reaction, ability to quickly make judgments and take decisive actions, intellectual capacities, as well as toughness and durability of the central neural system. Resting on the fact of somatic and psychological health state worsening of the nowadays youth, it is extremely important to improve personal psycho-physiological functions and the overall optimal intellectual capacities. Considering that, one of the key improvement direction of the physical education at the primary, secondary, and high schools is to explore the most efficient approaches and methods to optimize the central nervous system workability taking into account the interests and favours of youth. Team sports and individual sports are among the most popular ones, especially boxing. Boxing is overwhelmingly well liked in Ukraine due to successes of Ukrainian boxers at the world stage and being ranked among top athletes in the field. Boxing athlete preparation systems incorporate cognitive capacity and sensorimotor reaction development. Both unifications and modifications of such approaches of specific sports type enable us to utilize them in the processes of youth and adolescence physical education. The purpose of this study is to optimize the physical education process optimization alongside the improvement of 15-17 year-old males' cognition embodying boxing exercises. The objective of the study was fulfilled by accomplishing some particular steps including a) determination of influence factors of box exercises on cognitive processes and sensorimotor reaction speed, b) development of author program for 15-17 year-old males incorporating boxing exercises, and c) experimentally approve its efficiency. Research paper analysis, pedagogical experiment, psycho-diagnostics, and mathematical statistics were applied during the course of this study.

Literature Review

Latest research paper analysis showed that numerous investigations were conducted into the area of psychophysical characteristics and their dependencies on their motional training. In the studies of Bodnar, Rymar, Solovei, Malanchuk, & Datskiv, 2015 the dependence of the adolescent nervous system functional state on the physical activity levels was proven. Higher cognition efficiency formation and psycho-emotional toughness problems are tackled in

medicine, professional education (Bodnar, Dukh, Vovkanych, & Kindzer, 2012) and in sports and physical education psychology (Solovei & Rymar, 2013; Solovei, 2002). In the literature, there is a great number of studies dedicated to investigate into psychophysiological indicators of different training level of athletes in discrete sports (Brychta, Hojka, Heller, & Rudav, 2013). It was established that skilled sportsmen score higher in examinations of visual short-term memory, functional mobility, and neural processing strength. The sensorimotor reaction peculiarities of different sports disciplines are described in the study (Vovkanych, Dunets-Lesko, PENCHUK, & KACHMAR, 2015) and the indexes obtained can be considered as model during athletic selection or sportsmen functional preparation assessment. The velocity of sensorimotor reactions, cognitive and coordination capacities in the perennial sports training programs for boxers are studied in the literature of Nikitenko, 2019; Dudnik, Miroshnichenko, Kostynska, & Kuzmik, 2019; Obmiński, Mroczkowska, Kownacka, & Stabno, 2011; Pic & Jonsson, 2021.

The instances of boxing means incorporation into the physical education processes of high school students are mentioned in the study of Novokshonov, Solovei, Yaroshyk & Rymar, 2019. It was identified that the pupils had expressed high interest in martial arts, especially boxing. The experimental author program implementation likely positively impacted coordination capacities of adolescent boys and girls. It is important to mention that studies dedicated to delve into psychophysiological functionality, cognition, and sensorimotor reaction optimizations of the high school and higher educational institution students are of rare occurrence.

Methodology

The study has been conducted during 2019 – 2020. The initial stage of the study was manifested through collection and analysis of research papers and documentary materials devoted to cognition formulation processes peculiarities of 15-17 year-old males, and impact of boxing and physical exercises on sensorimotor reaction velocity and cognitive efficiency. The object of the study was the process of physical education, the subject of the study were the features of the use of boxing in this process. The obtained results allowed determining the purpose of the work, to specify the tasks and to scientifically substantiate the methodical approach to their solution.

To meet the research goals, we conducted the ascertaining and forming pedagogical experiments, during which the method of psychodiagnostics of psychophysiological reactions was used.

The psychodiagnostics were performed by testing that incorporated a computer system of emergency-psychotest, version 1.8.0.0 2016, and serial number 05775B. The following methods were used: "Attention assessment", which is used to diagnose stability and concentration, and it allowed us to conduct the analysis of a number of indicators - average reaction time, the central nervous system functional levels, reaction stability, nervous system functional capabilities, performance assessment by the neural system functional levels, performance assessment by the stability of the reactions, efficiency assessment by the levels of the functional capabilities, errors of anticipation, errors of delay, stability of attention and concentration; the "Noise Resistance" method was used to determine the ability to concentrate in the presence of sound and visual interference; method "Red and black Schulte-Platonov tables" (modified version) allowed to analyze the indicators of volume, switching and distribution of attention. Student's t-test and Wilcoxon's test were used to determine the degree of significance of the differences.

In order to determine the influence of boxing on cognitive processes and the speed of sensorimotor reactions, a confirmatory experiment was conducted. The ascertaining experiment was attended by 15 promising athletes aged 15-17, who have 5-7 years of experience in boxing and perform at international competitions, and 30 students, aged 15-17 years, of vocational lyceum, who have no abnormalities in health.

A comparative analysis of the results of testing the psychophysiological reactions of the two groups according to the methods of "Attention Assessment", "Noise Resistance", "Red and Black Schulte-Platonov Tables" was performed. Student's T-criterion was used to determine the degree of difference reliability.

The obtained results became the basis for the development of the author's program with the use of boxing means aimed at optimizing cognitive processes and sensorimotor reactions for 15-17 year-old males.

In order to test the effectiveness of the author's program with the use of boxing exercises in 2019 (October–December), a pedagogical experiment was conducted, which lasted 3 months. The author's program was introduced into physical education classes of a professional lyceum at the beginning of the main part of the lesson. The experiment involved 30 boys aged 15-17, who are in the main medical group due to their health condition. At the beginning and at the end of the experiment, testing of psychophysiological reactions of the participants of the experiment and comparative analysis of testing indicators were performed. The Wilcoxon T test was used to determine the degree of difference reliability.

Study Results

The results of the confirmatory experiment conducted to study the effect of boxing on cognitive processes and the speed of sensorimotor reactions showed that boxers have significant differences in a number of indicators (Table 1).

The comparative analysis of test results by the method of "Attention assessment" showed that boxers have probably better indicators of the average reaction time ($t = 2.513$ at $p < 0.05$). The average reaction time in the group of athletes was 254.4 ± 8.7 ms, and in the participants of the general group 296.26 ± 3.85 ms.

The indicators of the functional level of the nervous system in the group of boxers got 4.19 ± 0.9 units, and in the general group it was 3.87 ± 0.15 units. In the analysis of indicators, it was taken into account that the functional level of the nervous system is considered high at $5.1 \leq$ units; the lower the indicator, the lower the functional level. The mathematical analysis proved a statistically significant difference between the indicators of the two groups ($t = 2.513$ at $p < 0.05$). This proves that boxers probably have a higher functional level of the nervous system.

The average stability of the reaction in the group of boxers got 1.92 ± 0.1 units, in the general group 1.4 ± 0.15 units. In the analysis, it is necessary to consider that the higher indicator is the best ($2.6 \leq$ high level of stability of attention). The mathematical analysis proved a statistically significant difference between the indicators of the two groups in the stability of reactions ($t = 2.248$ at $p < 0.05$). Therefore, boxers probably have a higher level of stability or stability of the reaction.

The indicators of the level of functional capabilities of the nervous system in the group of boxers got 3.33 ± 0.11 units, in the general group 2.7 ± 0.2 units. When the level of functionality is assessed, it is necessary to take into account that the higher indicator, the better ($4.7 \leq$ high level). The mathematical analysis proved a statistically significant difference between the indicators of the level of functionality of the nervous system of the two groups ($t = 3.001$ at $p < 0.05$). This suggests that boxers probably have a higher level of nervous system functionality capabilities.

The analysis of indicators for assessing the efficiency of the nervous system in a group of boxers got 4.18 ± 0.09 units compared to the results in the general group of 3.86 ± 0.05 units. The mathematical analysis proved a statistically significant difference between the indicators of performance assessment by the functional level of the system of the two groups ($t = 3.190$ at $p < 0.05$). Accordingly, boxers are likely to have a higher score on the functional level of the nervous system.

The average performance of the stability of attention in the group of boxers got 1.93 ± 0.09 units, in the general group 1.63 ± 0.09 . The mathematical analysis proved a statistically significant difference between the indicators of performance assessment for the stability of the attention of the two groups ($t = 2.410$ at $p < 0.05$). This proves that boxers have a probably higher rating of performance for stability of attention.

The analysis of performance assessment indicators according to the level of functional capabilities of the nervous system in the group of boxers 3.33 ± 0.11 units, in the general group 2.9 ± 0.09 . The mathematical analysis proved a statistically significant difference between the indicators of assessment of the level of functionality of the two groups ($t = 3.190$ at $p < 0.05$). Accordingly, boxers are likely to have a higher assessment of performance by the level of functionality of the nervous system

In the analysis of most indicators by the method of "Noise Resistance" significant differences were found in the indicators of response speed. The average rate of response to sound and visual interference in the group of boxers - 300.62 ± 8.86 ms, in the general group 333.36 ± 5.73 ms. The mathematical analysis proved a statistically significant difference between the noise immunity of the two groups ($t = 3.104$ at $p < 0,05$). Thus, boxers have probably a better response time to visual and auditory interferences, respectively, a higher level of noise immunity. The analysis of the results of research according to the method of "Red and black Schulte-Platonov tables" (modified version) that boxers have significant differences in the volume, distribution of attention and the number of errors in testing.

The average indicators of the amount of attention in the group of athletes 47.27 ± 2.59 points, which corresponds to the average level on the rating scale according to the method of Schulte-Platonov. The average indicators of the general group are 56.03 ± 2.76 points, which corresponds to a level below the average. The mathematical analysis has shown that boxers have a probably better ($t = 2.317$ at $p < 0.05$) amount of attention, can capture more objects in a limited period of time.

The average indicators of the distribution of attention in the group of athletes 74.0 ± 6.99 points, which corresponds to the average level on the rating scale according to the method of Schulte-Platonov. The average indicators of the general group are 99.7 ± 5.63 points, which corresponds to a level below the average. Boxers have a significantly better ($t = 2.793$ at $p < 0.05$) ability to pay attention to or observe two or more objects at the same time.

The indicators of errors, when the method of Schulte-Platonov was performed, were 2.4 ± 0.6 points in the group of boxers, and 4.63 ± 0.6 points in the general group. The mathematical analysis of the results of the study proves

that the boxers made probably less ($t = 2.624$ at $p < 0.05$) errors when performed the test, which demonstrates they have the best ability to concentrate.

Table 1 Results of Testing the Psychophysiological Reactions

Methods	Boxers (n=15)	General group (n=30)	Student's T-criterion ($p < 0,05$)
"Attention assessment"			
Average reaction time (ms)	254.4 ± 8.7	296.26±3.85	2.513
Central nervous system functional levels (units)	4.19±0.9	3.87±0.15	2.513
Reaction stability (units)	1.92±0.1	1.4±0.15	2.248
Nervous system functional capabilities (units)	3.33±0.11	2.7±0.2	3.001
Performance assessment by the neural system functional levels (units)	4.18±0.09	3.86±0.05	3.190
Performance assessment by the stability of the reactions (units)	1.93±0.09	1.63±0.09	2.240
Efficiency assessment by the levels of the functional capabilities (units)	3.33±0.11	2.9±0.09	3.190
"Noise Resistance"			
Average rate of response to sound and visual interference (ms)	300.62±8.86	333.36±5.73	3.104
"Red and black Schulte-Platonov tables"			
Amount of attention (units)	47.27±2.59	56.03±2.76	2.317
Distribution of attention (units)	74.0±6.99	99.7±5.63	2.793
Errors (units)	2.4±0.6	4.63±0.6	2.624

Thus, a comparative analysis of the results of tests by the method of "Attention assessment" showed that boxers have probably better average response time, functional level of the central nervous system, stability of reactions, functional capabilities of the nervous system, assessment of performance by functional level of the system, and assessment of efficiency by level of functionality. No significant differences were observed in the indicators of the errors of anticipation, delay errors, stability of attention, and concentration.

The comparative analysis of the results of tests by the method of "Noise Resistance" showed that boxers have probably the best average response time to sound and visual interference, and, accordingly, a higher level of noise immunity.

The analysis of the results of Schulte-Platonov's attention tests showed that boxers have probably better indicators of attention span, attention distribution and fewer errors during testing (Table 1).

The conducted studies show that boxing has a positive impact on cognitive processes and the speed of sensorimotor reactions of boxers, which became the basis for the development of the author program. The author program was developed taking into account the peculiarities of physical development of boys aged 15-17, and was aimed at activating the cognitive processes of memory and

attention, the manifestations of sensorimotor reactions of simple and complex responses through the use of special non-contact simulation exercises.

The program of classes was divided into two stages: preparatory (6 lessons) and basic (30 lessons). The tasks of the preparatory stage included learning the technique of performing simulation basic boxing exercises – boxer's stand, movement in the boxer's stand, straight, bottom, and side blows, and some combinations of two blows. The tasks of the main stage were optimization of cognitive processes and sensorimotor reactions, as well as performing some blocks of combinations of 8 special boxing exercises with changes in motor tasks, direction of movement, and pace, which required attention, memory, speed of reaction, and reaction of choice in the conditions of time lack.

In order to test the effectiveness of the author program, a pedagogical experiment was conducted, which had lasted for 3 months. The author program was introduced into the regular forms of physical education lessons.

At the beginning and at the end of the experiment, the testing of psychophysiological reactions of the participants was performed.

The results obtained by the method of "Attention assessment" showed that the average time of the reaction rate before the experiment was 333.4 ± 5.7 ms, and after the experiment 313.7 ± 10.5 ms. The mathematical analysis proved a statistically significant difference between the initial and final indicators. The calculated value of the Wilcoxon T test, emp. = 144 less than $T(0.05) = 151$ with a probability of error $p < 0.05$. The simple reaction time was likely improved as a result of the experiment.

The analysis of the stability of the reaction to the experiment got 1.3 ± 0.1 units, and after the experiment it was 1.6 ± 0.1 units. During the analysis, it is necessary to consider that the higher indicator, the better ($2.6 \leq$ high level of stability of reaction). The calculated value of the Wilcoxon T test, emp. = 133 less than $T(0.05) = 151$ with a probability of error $p < 0.05$. As a result of the experiment, the firmness and stability of reactions likely improved.

The analysis of tests by the method of "Noise Resistance" exhibited differences between the indicators before and after the experiment. The average reaction time according to the method of "Noise Resistance" before the experiment was 375.7 ± 11.9 ms, and after the experiment 333.4 ± 5.7 ms. The calculated value of the Wilcoxon T test was emp. = 112 less than $T(0.05) = 151$ with a probability of error $p < 0.05$. The response time to visual and auditory disturbances probably improved, respectively, increased the level of noise immunity, with the experiment having impact on the participant group members.

The analysis of the results of research according to the method of "Red and black Schulte-Platonov tables" (modified version) showed that, as a result of the experiment, there were significant differences in the volume and distribution of attention.

The average indicators of the amount of attention to the experiment are 56.03 ± 2.76 points, which corresponds to a level below the average on the scale of evaluation by the method of Schulte-Platonov. The average after the experiment is 42.8 ± 1.9 points, which corresponds to the average level. The mathematical analysis proved a statistically significant difference between the initial and final indicators. The calculated value of the Wilcoxon T test was $emp. = 61.5$ less than $T(0.05) = 151$ with a probability of error $p < 0.05$.

The indicators of the distribution of attention to the experiment got 99.1 ± 5.6 points, which corresponds to a level below the average on the scale of evaluation by the method of Schulte-Platonov. The average values after the experiment were 53.5 ± 2.4 points, which corresponds to a level above the average. The mathematical analysis proved a statistically significant difference between the initial and final indicators. The calculated value of the Wilcoxon test T was $emp. = 7$ is less than $T(0.05) = 151$ with a probability of error $p < 0.05$. The experiment probably improved the distribution of attention, improved the ability to simultaneously focus on two or more objects and simultaneously perform actions with them or observe them.

At the same time, the mathematical analysis of switching of attention and of errors in the performance of the testing proves that there is no statistically significant difference between the initial and final indicators.

The results of the study confirm the positive effect of the experimental program on the psychophysical indicators of the speed and stability of the reactions, the speed of reactions to visual disturbances, the volume and distribution of attention, which, in turn, proves the effectiveness of the author program.

Discussion and Conclusions

The results of the study showed better ability of boxers to react quicker, as well as that the athletes have higher indicators of functional capabilities and efficiency of the nervous system, reaction stability, better response time to visual and auditory interferences, better ability to simultaneously pay attention to two or more objects and simultaneously interact with them, coverage of more objects in a limited period of time and concentration, which proves the positive impact of boxing on cognition processes. The significance of differences was confirmed by Student's T-test ($p < 0.05$).

The obtained results became the basis for the development and implementation of the author program with the use of non-contact special boxing exercises aimed at activating cognitive processes and the speed of sensorimotor reactions.

As a result of the pedagogical experiment, significant changes were observed in a number of indicators of psychophysical functions of boys aged 15-17. After the implementation of the author program, the indicators of the average reaction time, the stability of the reaction, and, accordingly, the assessment of the efficiency of the nervous system by the stability of attention probably improved. The response time to visual and auditory disturbances, volume and distribution of attention were also likely to improve. The significance of differences was confirmed by the Wilcoxon T test ($p < 0.05$).

The results of the study confirm the positive impact of the experimental program on psychophysical parameters, which proves its effectiveness.

Our research has confirmed the findings of many experts that exercise has a positive effect on cognitive function. Dividing cognitive skills into types of attention and speed of sensorimotor reactions, the authors (Heppe, Kohler & Fleddermann, 2016; Bianco, Russo, Perri, & Berchicci, 2017; Pic & Jonsson, 2021) found convincing evidence that cognitive skills can be transferred from specific sports to the general context. The authors argue that the sport is a moderator of sports-cognitive relations, with a better effect in martial arts than in team and individual sports (Heppe et al., 2016; Bianco et al., 2017). Martial arts require quick action, but preparatory brain activity can vary depending on the practical activity in a particular sport. Studies by (Bianco et al., 2017; Vovkanych et al., 2015) proved that boxers show better time of sensorimotor reactions than fencers and karate sportsmen, but worse accuracy than fencers.

The high popularity of boxing among young people in Ukraine, the availability of exercises and a positive impact on cognitive functions determine the introduction of this form of sport in the process of physical education. Studies by (Bodnar et al., 2012) show a higher mental resilience of students who use boxing and aerobics during physical education than when using volleyball and sambo, but no differences in sensorimotor reaction performance. Whereas, as a result of our research and implementation of the developed author's program with the use of non-contact special boxing exercises, positive changes were observed in the indicators of sensorimotor reactions, reaction stability and nervous system efficiency. Thus, the developed author's program with the use of boxing exercises can be implemented in the process of physical education and recommended for the formation of a number of specific psychophysical qualities of most modern professions.

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RELATIONSHIP BETWEEN COGNITIVE RESERVE, MOTOR RESERVE AND THALAMUS VOLUMETRY IN OLDER ADULTS

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Abstract. *With the increasing worldwide population, an ongoing escalation in mild cognitive impairment and dementia is predicted. Motor reserve – the cumulative physical activity experience gained throughout life, as well as cognitive reserve – the brain’s ability to overcome a pathology, such as neurodegenerative disorders, - has been identified as protective factors in cognitive decline. Thus, this study aimed to investigate the relationship between cognitive reserve, motor reserve, and brain volumetry in older adults. 44 older adults (M = 70, SD = 5.18, 77.3% female) with no self-reported significant neurological, ongoing oncological etc. disorders that might limit their participation in the study were involved in the study. All participants underwent a thorough life-style and psychological assessment, as well as structural brain MRI analysis. Overall, our study indicated the significance of a combination of lifestyle factors in predicting thalamic volume. The results of this study indicate that life-long participation in physical, intellectual, and social activities could be beneficial for preserving the volume of thalamus, which is among the first to decline due to aging.*
Keywords: *cognitive reserve, motor reserve, thalamus.*

Introduction

Evaluating the data available from World Report on Ageing and Health the proportion of people aged 60 years and older in Europe varied between 20-29% in 2015. In comparison with, for example, the USA and Canada the numbers fluctuated between 20 to 24%. The predicted percentage in the year 2050 in Europe is around 30%, while in Canada and the USA it is expected to increase to 25-29%. There is a visible tendency for a proportional rise which can be associated with better survival rates in early childhood in lower-income countries

and increasingly superior quality of healthcare in developed countries (WHO, 2015). With the age being the most significant risk factor for developing a neurodegenerative disease, the Alzheimer's Disease International predicts around 9.9 million new Alzheimer's disease (AD) patients worldwide yearly, or, in other words, one new patient every 3.2 seconds, making the yearly burden of the disease 604 billion USD in 2010 and 818 billion USD in 2015 (WAR, 2015). There has been an extensive amount of predictive research that strives to mathematically anticipate the burden of Alzheimer's Disease (AD) to the world in the near future. According to Brookmeyer et al. (2007), there were 26.6 million people worldwide living with this condition in year 2007 and the predicted prevalence was 1:85 or 106.2 million in year 2050 that is directly associated with the increase not only in the overall population but the geriatric population as well.

Considering the significant increase in the aging population and its increased risk for AD, identifying factors contributing to the disease progression, as well as finding pharmaceutical and life-style cure, is essential. Recent studies indicate the effectiveness of prevention (or prophylaxis) of the disease. Primary prophylaxis aims to reduce the risk of dementia before its biological onset, whilst secondary prophylaxis aims to manage early diagnostics before the occurrence of symptoms (Pudule et al., 2010). When focusing on primary prophylaxis, an understanding of modifiable and unmodifiable risk factors is necessary. Unmodifiable AD risk factors are, for example, genetic (APOE-4, GNG4, KCNQ2) (Šneidere et al., 2019), as well as aging, gender, lack of early education, inborn physical attributes, traumas, etc. Modifiable risk factors to consider are vascular and lifestyle with hypertension and hyperlipidaemia being the most commonly analysed. An increasing amount of research indicates that lifestyle factors could play an important role in the way we grow older (Bherer, Erickson, & Liu-Ambrose, 2013).

Three major lifestyle factors have been thought to have a significant role in slowing the rate of cognitive decline as well as preventing dementia amongst people with both positive and negative family history of Alzheimer's disease one of them being regular physical activity (Frith & Loprinzi, 2017).

Physical activity is any skeletomuscular movement that results in energy expenditure (Caspersen, Powell, & Christenson, 1985). Interest in the effects of physical activity on cognition, peaked as long ago, as the 1970s, when Waneen Wyrick Spirduso, a researcher from the University of Texas, published a systematic review on the relationship between physical activity and reaction and movement time (Spirduso, 1975). The relevance of this review increased with the findings in the studies by Kramer and Colcombe, showing an increase in the frontal cortex after an aerobic physical activity intervention (Colcombe et al., 2006). The concept was further developed by other researchers, identifying further and more detailed associations between aerobic activity and such brain

structures as the hippocampus (Prakash, Snook, Motl, & Kramer, 2010), the thalamus (Erickson et al., 2011), as well as the amygdala (Boots et al., 2015). A meta-analysis by Biazus-Sehn et al. (2020) confirms that physical activities could positively affect cognitive function during ageing process, preventing or at least delaying the MCI progression to Alzheimer's disease. This could be through changes in molecular and/or cellular pathways such as reduction of TNF- α and Il-6 as well as an increase of BDNF and larger-scale changes as increased blood flow to the brain and neovascularization and as a consequence making changes in the neurovascular system, molecular cascades and therefore promoting neurogenesis and synaptic plasticity.

However, while the studies do indicate the significance of short-term interventions, studies considering the role of long-term physical activity, are still lacking. Jeremy Young, a doctoral student at the time, at the University of Sussex, investigating the brain volumetric differences between sports veterans and socially active older adults, conducted one such study, however, showing no differences between the two groups (Young et al., 2016). We aimed to replicate the study; however, chose not to divide the participants into two groups, but consider the overall physical activity experience over the years as physical activity is a complex phenomenon (see definition above). To distinguish it from the commonly used term "physical activity", the term "motor reserve" was defined and will be used further in this article.

While the motor reserve is a relatively unknown term, the cognitive reserve has been well known for the past twenty years and is defined as "the adaptability (i.e., efficiency, capacity, flexibility) of cognitive processes that helps to explain differential susceptibility of cognitive abilities or day-to-day function to brain aging, pathology, or insult (Stern et al., 2018, p. 2). Significant studies have been conducted to research the association between functional and volumetric characteristics of the brain, e.g. a study conducted by Speer and Soldan (2015), showed that higher cognitive reserve was associated with better neural efficiency. In the meta-analysis by Bartres-Faz et al. (2011) not only an impact on brain structural parameters was noted contributed by the cognitive reserve, but it was also concluded that the effects might be regionally specific. However, more studies identifying the role of cognitive reserve in mediation between the structural damage of the brain and cognitive processes (e.g. see Rocca et al., 2018) are needed.

As most of the research regarding physical activity and cognitive reserve has mainly been focused on the short term physical activity interventions, our **objective** was to identify the relationship between the effects of motor reserve, cognitive reserve as well as brain volumetric measures in older adults.

Methodology

Participants. Forty-four participants aged 65 to 86 ($M=70.00$, $SD=5.18$, 77.3% female) were recruited for the study. Participants reported being non-smokers for at least past 5 years, have been on stable or no medication during the past 12 months and with Latvian proficiency of a native speaker, as well as with no self-reported diagnosis of memory dysfunction, cardiovascular disease, ongoing oncological or psychiatric disease, neurological deficiencies or other factors that might limit their participation in the study (e.g. metallic implants or cardiostimulators). Whilst screening the data, 3 participants were rejected due to not complying with the inclusion criteria or due to missing data.

Cognitive reserve assessment. The cognitive reserve were assessed using The Cognitive Reserve Index questionnaire (CRIq, Nucci, Mapelli, & Mondini, 2012). This questionnaire consists of three subscales: education (comprised of formal and vocational studies), working activity (measured in five levels, based on the level of responsibility and education requirements), and leisure activities (including weekly, monthly, annual and fixed activities).

Motor reserve assessment. Firstly, the data on physical activity were obtained, using the physical activity scale of the Social Determinants of Health Behaviours questionnaire (FINBALT, 2008). From this questionnaire a year grade was collected, further, a median was obtained from the grade category. The motor reserve index was calculated based on cumulative time dedicated to aerobic exercise over the years (since the age of 15), divided by maturity years.

MRI measures. Images were acquired using Siemens 1.5 Tesla Avanto MRI scanner (Siemens, Erlangen, Germany). High-resolution anatomical images were acquired using a three-dimensional T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE) sequence [TR=1160 ms, TE=4.44 ms; inversion recovery time (TI) = 600 ms; field of view, 230x230 mm²; matrix size 256 x 256; flip angle $\theta = 15$ degrees; voxel dimensions, 0.9 x 0.9 mm³; acquisition time, 5 min].

Procedure. Data were obtained with each participant individually. Firstly, all participants were introduced to the aims, risks, and benefits of the study and signed an informed consent. Further, as part of cognitive assessment, cognitive reserve indices were obtained, followed by an MRI analysis at Pauls Stradiņš Clinical University Hospital. Finally, physical activity assessment was conducted. It should be noted that the data reported in this article, are part of a larger data set obtained under State Research Programme BIOMEDICINE, sub-project No. 5.8.2., thus the procedure included additional assessments, not reflected in the article.

Statistical analysis. Statistical analysis was performed using IBM SPSS Statistics 26. In the first step, data screening was performed, during which 3

participants were discarded. Acquired data did not match the Gaussian distribution, therefore Spearman’s Rank Correlation was used. To exclude the effects of different cranial sizes, as suggested by O’Brien et al., 2012, a regression-based approach was chosen, using the intracranial volume as a confounding variable in the hierarchical multiple regression analysis. It should be noted that, while O’Brien et al. discussed ANCOVA in their article, only continuous data were used in this study, thus hierarchical regression model was chosen

Results

To determine the method of statistical analysis, compliance with normal distribution was calculated, indicating the need to use non-parametric methods ($p < .05$). Next, a central tendency indicator (*Mdn*) of participants’ age, motor reserve, cognitive reserve, and its’ subindices, as well as brain volumetry, were calculated (see Table 1).

Table 1 Median Indicators of Demographic Data, Brain Volumetric Measure, Cognitive Reserve Measures, and Motor Reserve

Variable	Mdn
Age	70
Motor reserve	0.53
Cognitive reserve total (CRI)	132.00
CRI-Education	120.45
CRI-Occupation	118.00
CRI-Leisure	132.20
Thalamus (TV)	12650.95
Thalamus - Right	6147.1
Thalamus - Left	6537.7

Note. CRI – cognitive reserve index, TV – total volume, WB – whole

A hierarchical multiple regression analysis was run to determine if the addition of the estimated total intracranial volume (eTIV) as a cofound variable improved the prediction of the thalamus laterally and bilaterally.

The full model of motor reserve, education, occupation, leisure, and eTIV to predict the volume of the left side of the thalamus (Table 2) was statistically significant ($R^2=.34$, $F(5,38)=3.98$, $p<.05$). The addition of education to the prediction of volume of left the side of the thalamus led to a statistically insignificant increase in R^2 of .01, $F(1,41)=.50$, $p>.05$. The addition of occupation to the previous model (Model 3) also led to an insignificant increase of R^2 of .02, $F(1,40)=.93$, $p>.05$.

Table 2 Hierarchical Multiple Regression Predicting Volume Of Left Side Of Thalamus From Motor Reserve, Education-CRI, Occupation-CRI, Leisure Time-CRI, eTIV

Thalamus-Left		β	R^2	F	ΔR^2
Model 1	Motor reserve	.23	.05	2.28	.05
Model 2	Motor reserve Education-CRI	.20 .11	.06	1.38	.01
Model 3	Motor reserve Education-CRI Occupation-CRI	.20 .03 .17	.08	1.22	.02
Model 4	Motor reserve Education-CRI Occupation-CRI Leisure time-CRI	.43 .06 .26 -.50	.26	3.43*	.18
Model 5	Motor reserve Education-CRI Occupation-CRI Leisure time-CRI eTIV	.36 .14 .19 -.51 .30	.34	3.98***	.08

Note. CRI – Cognitive Reserve Index, eTIV – estimated total intracranial volume, * $p < .05$, *** $p < .000$

Model 4 with the addition of leisure led to a significant increase in R^2 of .18, $F(1,39)=9.30$, $p<.05$, and finally the model with the addition of eTIV to the prediction of volume of the left side of the thalamus led to a significant increase in R^2 of .08, $F(1,38)=4.8$, $p<.04$.

The full model of motor reserve, education, occupation, leisure, and eTIV to predict the volume of the right side of the thalamus (Table 3) was statistically significant, $R^2=.43$, $F(5,38)=5.74$, $p<.001$. The addition of education to the prediction of volume of the right side of the thalamus (Model2) led to a statistically insignificant increase in R^2 of .00, $F(1,41)=.05$, $p>.05$, the addition of occupation to the previous model (Model 3), was also a statistically insignificant model giving an increase in R^2 of .02, $F(1,40)=0.87$, $p>.05$. The addition of leisure to the module (Module 4) also gave a statistically insignificant increase in R^2 of .07, $F(1,39)=2.94$, $p>.05$. And finally, the addition of motor reserve to the module to the prediction of volume of the right side of the thalamus led to a statistically significant increase in R^2 of .31, $F(1,38)=20.735$, $p<.001$.

Table 3 Hierarchical Multiple Regression Predicting Volume Of Right Side Of Thalamus From Motor Reserve, Education-CRI, Occupation-CRI, Leisure Time-CRI, eTIV

Thalamus-Right		β	R^2	F	ΔR^2
Model 1	Motor reserve	.18	.03	1.35	.03
Model 2	Motor reserve	.17	.03	.69	.00
	Education-CRI	.04			
Model 3	Motor reserve	.17	.05	.75	.02
	Education-CRI	-.04			
	Occupation-CRI	.16			
Model 4	Motor reserve	.31	.12	1.32	.07
	Education-CRI	-.02			
	Occupation-CRI	.22			
	Leisure time-CRI	-.31			
Model 5	Motor reserve	.17	.43	5.74***	.31
	Education-CRI	.12			
	Occupation-CRI	.09			
	Leisure time-CRI	-.32			
	eTIV	.59			

Note. CRI – Cognitive Reserve Index, eTIV – estimated total intracranial volume, *** $p < .000$

Table 4 Hierarchical Multiple Regression Predicting Total Volume Of Thalamus From Motor Reserve, Education-CRI, Occupation-CRI, Leisure Time-CRI, eTIV

Thalamus		β	R^2	F	ΔR^2
Model 1	Motor reserve	.21	.05	1.99	.05
Model 2	Motor reserve	.19	.05	1.11	.01
	Education-CRI	.08			
Model 3	Motor reserve	.20	.07	1.07	.02
	Education-CRI	-.01			
	Occupation-CRI	.17			
Model 4	Motor reserve	.39	.20	2.50	.13
	Education-CRI	.03			
	Occupation-CRI	.26			
	Leisure time-CRI	-.43			
Model 5	Motor reserve	.28	.39	4.87***	.19
	Education-CRI	.13			
	Occupation-CRI	.15			
	Leisure time-CRI	-.44			
	eTIV	.46			

Note. CRI – Cognitive Reserve Index, eTIV – estimated total intracranial volume, *** $p < .000$

The full model of the motor reserve, education, occupation, leisure and eTIV to the prediction of the total volume of the thalamus (Table 4) was statistically significant, $R^2=.39$, $F(5,38)=4.87$, $p=.002$. The addition of education to the prediction of total volume of thalamus led to a statistically insignificant increase

in R^2 of .006, $F(1,41)=.26$, $p>.05$. Then the addition of occupation to Model 2 (motor reserve and education) led to a statistically insignificant increase in R^2 as well, being .02, $F(1,40)=.99$, $p>.05$. The model 4 and model 5 respectively with the addition of leisure led to a statistically significant increase in R^2 of .13, $F(1,39)=6.37$, $p<.05$ and adding the eTIV leading to a statistically significant increase in R^2 of .19, $F(1,38)=11.64$, $p<.05$.

Discussion

This study aimed to investigate the relationship between the newly defined motor reserve concept, cognitive reserve, and brain volumetry.

With the increasing worldwide population there is no doubt dementia is taking a toll on the health of the community. With no etiologically effective treatment, prevention is the leading plan for lessening the burden of the disease. Regardless of the increasing amount of research on short-term physical activity and dementia, little is known about the long-term effects.

Overall, our study indicated the significance of a combination of lifestyle factors in predicting thalamic volume. The individual factors themselves did not contribute significantly to the prediction; however, the increase was the most significant when adding leisure time activities. This aspect enhances not only the significance of social relationships and hobbies but also stresses the aspects of cultural heritage, as the scale includes questions on reading, visiting theatres and exhibitions, reading actively, etc. Several studies have shown the relationship between slower age-related cognitive decline and cultural engagement (e.g. visiting museums, theatre, opera), as well as living in culture-respective environments (e.g. as in the case of immigration) (Day & Cohen, 2000; Douka et al., 2019; Fancourt & Steptoe, 2018).

The volumetric and microstructural changes in the thalamus correspond with ageing, indicating the significance of older age in the decline (Hughes et al., 2012). Thalamus is often defined as critical regarding the communication between cortical regions not only as a passive relay of information but as an integrator of information processing between regions and is considered to be one of the most cognitively flexible brain regions mediating not only high-level cognitive processes such as attention but simpler sensorimotor functions as well (Hwang et al., 2017).

Among the cognitive functions often associated with the thalamus, are memory, information processing speed (Fama & Sullivan, 2015), as well as its involvement in linguistic operations. While thalamus is not considered to be directly involved in language processing and production, an ongoing hypothesis indicates a cortico-thalamic language network that indicates the thalamus as a moderator in language execution (Klosterman, Kruger, & Ehler, 2013). Several

studies have indicated the role of language in predicting pathological cognitive decline (e.g. The Nun Study). There have been some indications of the role of linguistic abilities in cognitive reserve as well, specifically considering the aspect of bilingualism. A recent review supports the contribution of bilingualism in cognitive reserve (Guzmán-Vélez & Tranel, 2015), thus the ability to speak many languages might have an implicit effect on volume of the thalamus whilst multilingualism could also be associated with the level of education.

Whilst the research investigating the volume of thalamus in an aspect of physical activity is quite sparse there is some research evaluating the thalamus in the population of known co-morbidities and evaluating the aspect of hippocampus in healthy adults as well. For example, research by Alosco et al. (2015) revealed a significant association between steps per day and the total volume of the thalamus in adults suffering from heart failure. The same research, however, did not see an association in the volume of *nucleus caudatus* or hippocampus, or amygdala, contrary to many other pieces of research.

Some limitations should be acknowledged in this study. Firstly, due to small sample size, more participants should be considered as more data could show some differences in correlation with both – cognitive reserve and motor reserve, when it comes to brain volumetry. Secondly, due to gender distribution in the sampling size (with female gender representing the greater part of the study) perhaps an analysis between the genders could also offer different data to compare.

To conclude, our study results support previous research indicating the significance of integrating socially, intellectually, and physically active lifestyle not only as a short-term intervention, but also as regular activities all through life. Further studies, allowing to pinpoint specific activity-sensitive periods in life, would be beneficial in both – individual and societal levels.

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THE IMPORTANCE OF EDUCATION TO REDUCE SELF-DESTRUCTIVE NAIL HABITS

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Abstract. *Onychophagia and onychotillomania are rarely seen in clinical practice and are considered undervalued. The study aims were to determine the prevalence of onychophagia and onychotillomania habit in the patient group with hand nail damage and control group, to determine which would be the target population to educate. Patients were interviewed about self-destructive habits. Excel and SPSS were used for data analysis. In the nail damage group, 28.6% of the respondents showed self-destructive habits and past habits – 31.4%. In the control group, the result was 22.9% and 31.4%. For 74.3% of patients the cause of nail damage was skin disease (including 61.54% of respondents with nail damage who have psoriasis), for 5.7% it was age-related nail changes, for 20% traumatic damage and for 57.14% of them it was a result of self-destructive habit. In the nail damage group both – present and past self-destructive habits are higher than in the control group, but it has no statistical significance ($p=0.785$). 1) The prevalence of onychophagia and onychotillomania does not differ between patients and control group. 2) General education of the population is necessary to actualize this problem, which can worsen nail changes.*

Keywords: *onychophagia, onychotillomania.*

Introduction

Self-destructive behavior with own nails includes onychophagia, onychotillomania, and other less common conditions, for example, onychodaknomania (Haneke, 2013).

Onychophagia is a repetitive behavior characterized by chewing or biting the free margin of the nail (Kang, Amagai, & Bruckner, 2019). The term onychotillomania was coined by Alkiewicz in 1934. Onychotillomania is chronic nail and cuticle picking, manicuring, or pulling (Alkiewicz, 1934). Exact prevalence and incidence is not known, but onychophagia and onychotillomania are probably underrecognized. A recent study (Wu, Lin, & Cooley, 2021; Houghtona, Alexandera, Bauera, & Woodsa, 2018) found significant increase in incidence of self-destructive behavior.

Due to potential nail damage, it is important to update this topic. Furthermore, it is important to use questions to define self-destructive behavior, recognizing mental illness or predisposition for other diseases. The aim of our study was to determine the incidence of onychophagia and onychotillomania among patients with nail damage in a dermatologist's practice and in healthy patients, to identify the population group in need of education about self-destructive behavior and potential consequences.

Classification

In the literature, these habits are mentioned under various terms, for example, self-destructive habits, psychodermatosis, pathological grooming, autoaggressive nail disease, or body-focused repetitive behavior (BFRB). (Kang, 2019; Houghtona, 2018; Maraz, Hende, Urban, & Demetrovics, 2017). BFRB is a term often used in recent years and its behavior is divided into two groups: subclinical BFRB and pathological or clinical BFRB. They are distinguished from each other by the duration and frequency of the habit. A subclinical habit is defined when a habit is performed less than 5 times a day and for less than 1 year, but a pathology is at least 5 times a day and for more than 1 year. Pathological BFRB are associated with functional impairment (Houghtona, 2018).

Prevalence

The prevalence of onychophagia is not known. However, according to the literature, it could be from 45% to 60% (Houghton, 2018). According to the results published by several leading researchers (Pacan, Grzesiak, Reich, Kantorska-Janiec, & Szepietowski, 2014), the lifetime prevalence of onychophagia is not constant - in childhood nail biting is more common. This study shows that the mean age of onychophagia onset was 8.0 ± 3.5 years with an age range of 3–20 years and the majority of participants started nail biting before the age of 13. Furthermore, past nail biters stopped nail biting averagely at 13 years of age. However, in another study (Houghton, 2018) with students (at least 18 years of age), the prevalence of onychophagia was 33.5%. It is known that nail biting harshly decreases after 18 years of age (Shetty & Munshi, 1988).

Onychotillomania is less common and almost exclusively seen in adults (Haneke, 2013). Previous studies (Pacan, 2014) have shown that onychotillomania presented in 0,9% of participants, and more common in students aged from 18 to 45 years, 46.4% respectively (Wu, 2021). The factors influencing the data could be different, including responders age, diagnostic

method, and possible patient openness. This data supported the distribution and grouping of patients in this study.

Etiology

Onychophagia and onychotillomania sometimes are associated with psychiatric disorders (Winebrake, Grover, Halteh, & Lipner, 2018; Solley & Turner, 2018; Gupta, 2019). The presence of self-destructive behavior in one family may indicate genetic predisposition (Bakwin, 1971).

Self-destructive Habit Impact on Health

Nail biting and picking are associated with several other health disturbances, including parasite infestation (Gras-Ozimek, Ozimek, Kozińska, Gras-Graupera, & Kozińska, 2019), teeth damage (Marouane, Ghorbel, Nahdi, Necibi, & Douki, 2016), temporomandibular joint disorders (Fernandes, Franco-Micheloni, Siqueira, & Camparis, 2016), enterobacterial carriage (Reddy, Sanjai, Kumaraswamy, Papaiah, & Jeevan, 2013) (and onychomycosis (Zisova, Chokoeva, Sotiriou, Valtchev, & Gospodinov, 2015). Self-destructive behavior is common and has a detrimental effect on quality of life (Pacan, Reich, Grzesiak & Szepietowski, 2014). Shame and feeling of guilt could result in significant mental distress (Maraz, 2017).

Materials and Methods

The study is prospective in time. Patients of Riga 1st Hospital Clinical Centre of Skin and Sexually Transmitted Diseases with clinical hand nail damage were enrolled in this study. To increase the objectivization and reliability of the study results, one control group was created. Volunteers with no existing visual changes of hand nails were used for control. Patient demographic data, including gender and age, was collected. Clinical data included the nail plate, nail bed, and nail fold characteristics. A questionnaire consisting of two parts was developed. The first part inquired onychophagia and onychotillomania behavior. The second part inquired whether respondents have any organ or system disorders. The clinical picture was photodocumented in the first appointment, previously, eliminating any identification features of a natural person (jewelry, tattoos, piercings and profile image).

Research Aim

- Determine the prevalence of onychophagia and onychotillomania in dermatologist's practice.
- Determine which group of people needs to be educated about onychotillomania and onychophagia habits.

Ethics

Study was approved by The Research Ethics Committee of Riga Stradiņš University and The Research Ethics Committee of Riga 1st hospital.

Statistical Analysis

Descriptive statistics were composed, including mean and standard deviations. Chi-square test and Fisher's exact test were used to determine differences between groups and associations with habits. SPSS 23.0 version program was used for statistical analysis. A 95% confidence interval was used for statistical analysis, values of $p < 0.05$ were considered as significant.

Results

Both gender participants were included in the study from the age of 12 years. In this study, 70 participants were analyzed - 35 were in the control group and 35 in the nail damage group. The mean age of the control group was 49.7 (SD 19.7) years and the median was 51 years. In the nail damage group, it was 58.8 (SD 16.6) years and the median was 60 years (Figure 1).

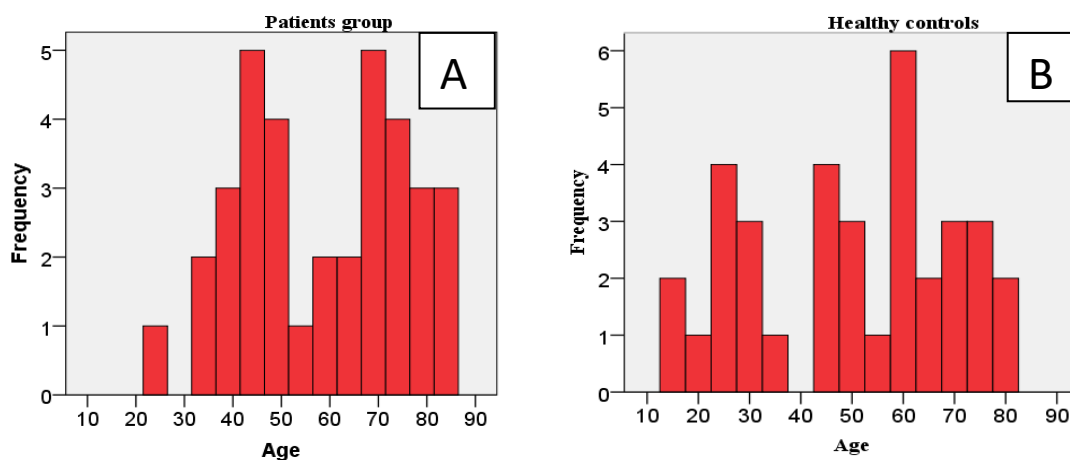


Figure 1 Age Distribution in the Patient Group (A), Age Distribution in the Healthy Controls (B)

Self-destructive habits were observed in minority of the respondents (25.7 %, n=18). Onychotillomania and onychophagia were equally common in the nail damage group and control, 28.6% and 22.9%, respectively, and no statistical difference was found.–The distribution of habits is summarized in Figure 2. No statistical differences in habit prevalence and gender were observed. However, self-destructive habits were observed in 1 (10%) cases of the elderly (age > 65 years) in the nail damage group. There are statistically significant differences between the elderly and other cases (middle-age and young adults) ($p = 0.022$) where the second group shows higher prevalence. Moreover, a similar statistical difference was observed in the total study population, where the prevalence among elderly were less common than in patients under 65 years, 2 (11.1%%) and 16 (88.9%) cases respectively ($p = 0.023$). The most frequent habit was onychotillomania in the study population and patient group under 65 years, 15 (88.2%) ($p = 0.033$) and 8 (88.9%) ($p = 0.048$) respectively.

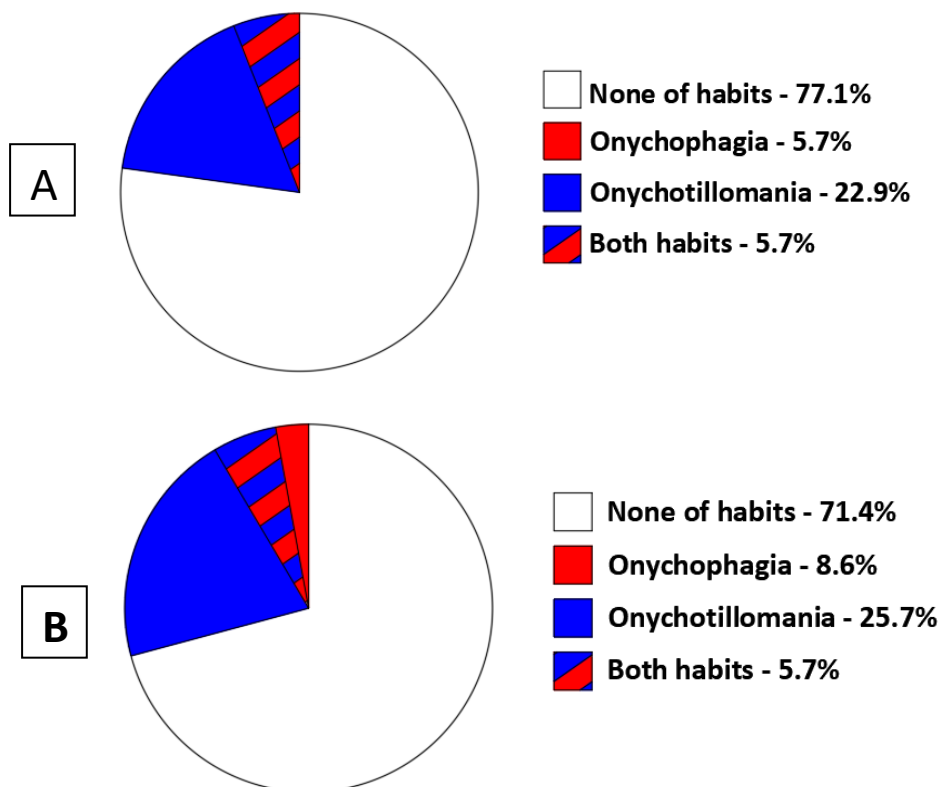


Figure 2 Prevalence of Habits in Patients' Group (A) and Healthy Controls (B)



Figure 3 The Patient with Clinical Nail Damage and Self-destructive Habits

The study included patients with a variety of nail damage (Figure 3). In 74.3% of patients, nail damage was caused by underlying skin disease, more often psoriasis - 61.5%, followed by onychomycosis 19.23%, systemic scleroderma 7.69%, and lichen ruber planus 3.85%. Participants with psoriasis and any of the self-destructive habits clinically showed more severe nail damage than without. Only one patient had self-destructive habits and psychiatric disease in the patient group and no one in the healthy controls.

Discussion and Recommendations for Education

The exact incidence of onychophagia and onychotillomania are unknown. Onychophagia and onychotillomania were more common in children and young adults (Pacan, 2014; Houghton, 2018; Shetty, 1988), however, our study included patients from 15 to 83 (mean age 54.2) years of age. Extending the age of the subjects in our study provided an opportunity to expand knowledge about onychophagia and onychotillomania incidence. From the dermatologists point of view, this problem is especially relevant.

Onychotillomania was the most common self-destructive behaviour, and this data did not match with the results of studies by other authors (Pacan, 2014), where onychophagia is the most common one. It is possible that these differences were determined by the age of the study population. We can only speculate whether young people more commonly have onychophagia but middle-aged and old people onychotillomania. We determined that self-destructive behavior decreases after 45 years of age. Our study data shows that the prevalence of self-destructive habits does not differ between patients and the control group. This means that it is important to educate both – patients who visit the dermatologist and the general population. Directions of education can be divided into two groups: mass approaches and individual-centered approach.

Patients with damaged nails or skin disorders associated with nail damage should have an individual educational approach during a dermatologist's consult. This study reflects that 45.7% of all possible nail damages were caused by psoriasis. The formation of new skin or nail psoriatic lesions secondary to trauma, called Koebner phenomenon was also previously reported (Sagi & Trau, 2011). This data emphasize the importance of education for psoriasis patients. Determining habits, informing about possible impacts and treatment options could be limited during a doctor's visit, indicating the impersonal or mass approach importance. The advantage of mass methods is the ability to reach a large number of people who may not have direct contact with health workers. Since it is known that onychophagia is most common in school-age children (Ergun, Toprak, & Sisman, 2013), attention should be paid to parental education. Finally, nail biting is a major risk factor for onychomycosis (Zisova, 2015) and in this study onychomycosis caused nail damage was 14.3% of all cases. However, the smallest number of cases in these groups answered positively to questions about self-destructive habits. In our opinion, patient openness may be challengeable during the study survey as this topic is sensitive.

Conclusion

To our knowledge, this is the first study with the aim to determine the prevalence of onychophagia and onychotillomania in dermatologists' practice in Latvia. Our findings indicate that self-destructive habits could be seen in a wide diversity of ages. Despite the fact that the study groups were not large, we highlight the importance of patient education in dermatologist's practice and population education, about self-destructive behavior and potential damage of nails or nail folds, with a special focus on the under-65 age group. Health education, frequent monitoring, and conducting interventional programs among parents and caregivers would be vital so that the prevalence of self-destructive nail habits can be minimized. The use of patient-centered and mass education is important to reduce stigmatization of the problem and to promote overall public health. There are many methods that could be implemented, for example, health magazines, television, radio, adverts in public transport, and others. The literature summarized in this study suggests that education about these habits is also important in psychiatry, dentistry, and orthodontics.

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**MĀKSLA UN DIZAINS, DIZAINA
IZGLĪTĪBA**

Art and Design, Design Education

KORPORATĪVĀS IDENTITĀTES DIZAINA DARBĪBAS POLITIKA VIZUĀLĀS KOMUNIKĀCIJAS PROCESĀ

Corporate Identity Design Policy in the Process of Visual Communication

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Abstract. *The term corporate identity describes the essence of a company, a set of all the characteristics that make up the company. The company SIA “Nature Line” mentioned in the article, which started its operation as a start-up in the food production industry through the Rēzekne Business Incubator start-up programme, put forward as one of the company’s principal aims to promote the recognition of the company and its products to ensure broad opportunities for product export. One of the objectives for reaching the aim is to create a corporate identity design. A corporate identity design will help the company to start advertising and positioning itself to customers, thus promoting successful company operation. Considering the changing trends, technological opportunities, popularity of the start-up field, and rapid development of visual communication in the modern day, in the article the authors justify the relevance of the chosen topic. The research problem is the lack of understanding on the part of start-ups about the importance of designing a corporate identity for ensuring successful operation of the company as well as insufficient support. The research aim is to explore modern corporate identity development trends in the context of design policy and to analyse expert interviews in order to find out the opinion of experts about the importance of creating a corporate design for ensuring successful operation of a star-up company, about the trends in the graphic design of corporate identity, about the most important elements and their successful positioning. The research results are obtained using the theoretical research methods: the study of scientific and journalistic literature and internet resources, analysis and evaluation, which discover the essence of the problem, as well as expert interviews, which are empirical research methods.*

Keywords: *brand, corporate identity design, design development trends, digitalisation, sustainability, visual communication.*

Ievads *Introduction*

Vizuālā komunikācija ir piemērota globālai kultūrai. Ietekmīgais mākslinieks un mākslas pedagogs Georgijs Keps to uzsvēra 1944. gadā, rakstot: *“Vizuālā komunikācija ir universāla un starptautiska; tā nezina mēles, vārdu krājuma vai gramatikas robežas, un to var uztvert gan analfabēts, gan literāts”* (Malamed, 2009, 10).

C. Simoess un R. Sebastijani, pamato korporatīvās identitātes jēdzienu: *“Korporatīvā identitāte kalpo kā komunikācijas un korporatīvās stratēģijas ieviešanas rīks uzņēmumā”* (Simoess, Sebastiani, 2017). Korporatīvās identitātes kā jomas pētniecība bijusi aktuāla kopš 60. gadiem. V. Olins, Lielbritānijas korporatīvās identitātes pētnieks un praktizētājs, pat pirms termina *“zīmols”* ieviešanas attīstīja interesi par šo jomu, savos pētījumos plaši apskatot zīmola un korporatīvās identitātes jēdzienu un tā nozīmi uzņēmuma ietvaros (Balmer, 2018). R. G. Edmunds un M. T. J. Balmers 1998. gadā iepazīstina ar pragmatisku darbības modeli, kur līdztekus korporatīvajai reputācijai un tēlam, uzsvērtā korporatīvā identitāte un korporatīvā komunikācija, kā arī šo komponentu savstarpējās attiecības (Edmund, Balmer, 1998), autori un pētnieki kā E. Dženkinsa un T. C. Melevars plašos pētījumos apraksta korporatīvās identitātes konceptu, struktūru un dimensijas (Melewar, Jenkins, 2002), T. C. Melevars rakstā ar K. Bassetti un C. Simoess uzsver komunikācijas un vizuālās identitātes lomu moderna uzņēmuma darbībā (Melewar, Bassett, Simoess, 2006), savukārt, pētījumā ar līdzautoriem L. Deverukss, K. Dinniju un T. Langi, tiek apskatīta pilnīgi jauna teorija – korporatīvās identitātes orientācija un disorientācija (Devereux, Melewar, Dinnie, Lange, 2019), autors B. Bergstrens grāmatā *“Vizuālā komunikācija”* atspoguļo termina struktūras sadalījumu elementos (Bergstrens, 2008), savukārt C. Simoess un R. Sebastijani, pētījumos apraksta korporatīvās identitātes jēdzienu un tā lomas organizācijā (Simoess, Sebastiani, 2017).

Teoriju un pētījumu ietvaros, par korporatīvo identitāti, kā viens no korporatīvās identitātes veidojošiem elementiem, tiek minēts korporatīvais dizains, avotos saukts arī par korporatīvo vizuālo identitāti, vizuālo profilu, korporatīvās identitātes dizainu un vizuālo identitāti. Mūsdienu vizuālā un digitālā laikmeta kontekstā pētnieki uzsver korporatīvās identitātes dizaina nozīmi uzņēmuma darbībā, arī uzņēmumu vidū ir manāma pieaugoša tendence korporatīvās identitātes dizaina izstrādē.

Raksta mērķis – izzināt korporatīvās identitātes attīstības tendences mūsdienās dizaina darbības politikas kontekstā un analizēt ekspertu intervijas, ar mērķi uzzināt ekspertu viedokli par korporatīvā dizaina izstrādes nozīmi jaunuzņēmuma veiksmīgas darbības nodrošināšanā, par korporatīvās identitātes

grafiskā dizaina tendencēm, nozīmīgākajiem elementiem un to veiksmīgu pozicionēšanu. Pētījuma rezultāti tika iegūti, izmantojot teorētisko pētījumu metodes: zinātniskās, publicistiskās literatūras un interneta resursu studēšana, analīze un izvērtēšana, kas atklāj attiecīgās problēmas būtību, kā arī tika veiktas ekspertu intervijas, kas attiecīgi ir empīriskās pētīšanas metodes.

Ilgspējība kā stratēģiskās attīstības virziens korporatīvajā dizainā *Sustainability as a Direction of Strategic Development in Corporate Design*

Grafikas dizaineri korporatīvās identitātes izstrādē izmanto vizuālos elementus – tipogrāfiju, attēlus, krāsas un telpu – ideju nodošanai, izmantojot dažādus saziņas līdzekļus, kā vērtība tiek izcelta problēmu risināšanas prasme un spēja palīdzēt uzņēmumiem un organizācijām izveidot veiksmīgu stratēģiju (Dritz, 2014).

Kā viens no veiksmīgas uzņēmuma darbības stratēģijas pamatnosacījumiem ir uzņēmuma identitātei atbilstošs korporatīvais dizains un tā pozicionējums.

Ņemot vērā jomu straujo attīstību, 21. gs. tendences – ilgtspējība un digitalizācija, savas iezīmes iesakņojusi arī korporatīvā dizaina jomā.

Nav šaubu, ka ekoloģiski ilgtspējīgam dizainam ir jāklūst par pastāvīgu produktu un pakalpojumu ražošanas un dizaina sastāvdaļu (Proctor, 2009).

Termins “ilgtspējība” pirmo reizi tika izmantots mežsaimniecības nozarē, šajā kontekstā apzīmējot atbildīgu mežu apsaimniekošanu. Šo definīciju var plaši piemērot visai pasaulei, kur ekosistēma un tās resursi cīnās, lai neatpaliktu no materiālu izmantošanas pieprasījuma (Proctor, 2015).

Ilgspējīgs grafiskais dizains ir ilgtspējības principu piemērošana grafiskā dizaina jomā (Dritz, 2014).

Grāmatas “Green design” autors D. Makenzijs ilgtspējīga dizaina domāšanu aktualizē jau 1997. gadā: “*Ja mēs vēlamies samazināt vides problēmu apmēru, dizainam līdz ar dizaina lietotāju un patērētāju - privātpersonām un rūpniecību, būs jāmainās. Dizainera uzdevums tuvākajā nākotnē kļūs grūtāks un svarīgāks nekā jebkad agrāk, prasot mainīt attieksmi, izglītību, pieeju un atbildību*” (Mackenzie, 1997, 154).

Ilgspējības modeļiem ir tendence koncentrēties uz trim dimensijām: sabiedrība, ekonomika un vide. Uzņēmējdarbībā to bieži dēvē par trīskāršo principu modeli, kura koncepciju popularizēja Džons Elkingtons savā 1997. gada grāmatā *Cannibals with Forks: The Triple Bottom Line of 21st Century* (Dritz, 2014).

Profesionālā Dizaina apvienība AIGA Memfisas dizaina konferencē 2009. gadā atklāja jaunu ilgtspējības pamatprincipu modeli “*The Living Principles*”. Jaunizveidotais modelis izkliedē līdz šim atrodamās gadu desmitiem

izmantotās ilgspējības teoriju, un atdzīvina to četrkāršā principa ietvaros (International Council of Design, 2009).

“*The Living Principles*” pamatprincipiem pievieno ceturto dimensiju: kultūra – sabiedrībā dzīvojošo cilvēku vērtību, pārliecības un darbību attēlošana. Kultūras dimensijas iekļaušana ietver cilvēku dzīvesveida izvēles un patēriņa paradumu aspektu un to ietekmi uz ilgspējību (Dritz, 2014).

Ilgspējīgs grafiskais dizainers savā darbībā izmanto stratēģijas, procesus un materiālus, kas ievēro četrus ilgspējības elementus: sabiedrību, vidi, ekonomiku un kultūru (Dritz, 2014). Tas ir jauns uzņēmējdarbības modelis, kas atspoguļo būtisku pārmaiņu tajā, kā mūsdienu uzņēmumi mēra panākumus (Wheeler, 2013).

Ekoloģijas jautājuma aktualitāte ir veicinājusi ilgspējīgai domāšanai kļūt par būtisku zīmola veidošanas sastāvdaļu. Patērētāji iegādājas vērtības, un uzņēmumi pārdomā sniegto vērtību piedāvājumu (Wheeler, 2013).

Sekojojot ilgspējības attīstībai un virziena aktualitātei, korporatīvās ilgspējas jēdziens ir kļuvis nozīmīgs kā biznesa pieeja un kā biznesa modeļa pamats. Ilgspējība pieprasa sociālo un vides jautājumu efektīvu integrāciju organizācijas redzējumā, vērtībās, kultūrā un darbībā. Organizācijas izmanto korporatīvo identitāti kā platformu uz ilgspējību orientētas identitātes izveidošanai un ieviešanai uzņēmuma darbībā (Simoes, Sebastiani, 2017).

Kā piemēru, ilgspējīgas organizācijas darbībā, var minēt Anglijas organisko tēju kompāniju *Pukka*, kas par sava uzņēmuma mērķi ir izvirzījuši cilvēku veselības un labklājības veicināšanu, cik vien iespējams ilgspējīgā un ētiskā veidā. Grafiskā dizaina jomā uzņēmums izvēlas vizuālās komunikācijas materiālus pārsvarā digitalizēt, produktu iepakojumi tiek drukāti ar augu bāzes tinti, savā darbībā uzņēmums ir godalgots ar pieciem dažādiem ilgspējības marķējumiem.

No atjaunojamiem resursiem izgatavotas tintes ir pārstrādājamas, drošākas, kā arī drukā ar košākām krāsām nekā tintes, kuru pamatā ir minerāli (Livingston, 2018).

Apkopojot dažādu autoru ieteikumus, par ilgspējīgāka grafiskā dizaina iespējām, tiek izcelti daži pamatrisinājumu piemēri: pārstrādāta papīra, koksni nesaturoša papīra vai alternatīvu materiālu izmantošana; printēšana ar augu bāzes vai videi draudzīgu tinti; efektīva krāsas izmantošana; piesārņojuma samazināšana; abu lapaspušu izmantošana printējot; mārketinga materiālu efektīva izvēle; digitālu PDF failu izveidošana drukātu materiālu vietā.

Ņemot vērā ilgspējības attīstības tendences Ico-D, Starptautiskā komunikācijas dizaina padome 2013. gada oktobrī papildināja grafiskā dizaina profesijas definīciju: “*dizaineram jāizprot un jāņem vērā radītās darbības kultūras, ētiskā, sociālā, ekonomiskā un ekoloģiskā ietekme un viņu atbildība pret cilvēkiem un vidi gan komerciālā, gan nekomerciālā sfērā*” (International Council

of Design, 2013). Līdz ar ilgtspējības kā jomas attīstību, tās elementu integrācija grafiskā dizaina jomā, arī korporatīvā dizaina izstrādē pieaug.

Digitalizācijas attīstība korporatīvā dizaina kontekstā *Development of Digitalisation in the Context of Corporate Design*

Viena no visaptverošākajām pārmaiņām sabiedrībā 21. gadsimtā ir informācijas un komunikāciju tehnoloģiju (IKT) izplatība (Gretzel, Koo, Zhong, 2016). Viedās tehnoloģijas, automatizācija un digitalizācija ir kļuvusi par ikdienas sastāvdaļu iedzīvotājiem, uzņēmumiem un valstīm kopumā.

Digitalizācija ir informācijas pārvēršanas process digitālā formātā. Digitalizācija uzņēmējdarbības jomas kontekstā ir digitālo tehnoloģiju iespēju izmantošana, lai mainītu vai uzlabotu biznesa modeli, nodrošinātu ienākumu palielināšanos un vērtības celšanas iespējas; tas ir pārejas process uz digitālo biznesu (Gartner Glossary, 2020). Digitālais bizness izmanto tehnoloģijas kā priekšrocību iekšējās un ārējās darbības sekmēšanai (Komprise Data Management Glossary, 2017).

Informācijas tehnoloģijas ir mainījušas uzņēmumu infrastruktūru un darbību. Vadoties pēc Lielbritānijas Dizaina Ekonomikas pētījuma datiem, digitālās nozares firmas apgrozījumā pieauga par 85% periodā no 2009. līdz 2016. gadam, atspoguļojot digitālā dizaina strauji pieaugošu tendenci (Benton, Miller, Reid, 2018).

Arī Latvija, arvien straujāk attīstās digitālo tehnoloģiju jomā. Kā vienu no piemēriem var minēt tīmekļa datu vizualizācijas un infografikas platformas uzņēmuma "Infogram" uzvara Latvijas Nacionālā dizaina gada balvā 2017. gadā. "Infogram" ir daudzpusīgi izmantojams digitālā produkta risinājums datu vizualizāciju veidošanai (Latvijas dizaina gada balva, 2017).

Lai gan, 90% uzņēmumu dibinātāju uzskata, ka digitalizācija ir galvenā tendence viņu nozares virzībā, tikai 25% no viņiem ir izstrādāta atbilstoša stratēģija (Woxapp, 2018).

Veiksmīgākai digitālo tehnoloģiju ieviešanai uzņēmuma darbībā izteikti trīs galvenie digitalizācijas mērķi: produkta (vai pakalpojuma) uzlabošana; ražošanas un citu uzņēmuma iekšējo procesu automatizācija; iekšējās un ārējās saziņas vienkāršošana.

Mērķu sasniegšana uzņēmuma darbībā nodrošinās jaunu tehnoloģisko sasniegumu attīstību pasaules ekonomikā, vienlaikus ievērojami samazinot izmaksas un optimizējot ražošanas procesus, lai pasargātu vidi, ietaupītu resursus, kā arī uzlabotu dzīves līmeni kopumā (Woxapp, 2018).

Grafiskā dizaina digitalizācija ir salīdzinoši jauna pētniecības nozare, progresīvs process, kas attīstās līdz ar tehnoloģiju attīstību. Digitalizācijas

priekšrocības īpaši jūtamas plašā iespēju klāstā, ko rada datorizēti projektēšanas rīki (Poon, 2015).

Digitālo tehnoloģiju attīstība ir aktuāla plašā nozaru jomā, līdztekus uzņēmējdarbībai un grafiskajam dizainam, arī uzņēmuma korporatīvajā dizainā digitālās tehnoloģijas un to ietekme uz dizaina izstrādi ir klātesoša.

Zīmola izskats nākotnē tiks attīstīts no digitāla skatupunkta. Drukājamo materiālu pielāgošana digitālam formātam, interaktīvu, animētu logotipu izstrāde, telpiskās komunikācijas attīstība, digitālo plašsaziņas līdzekļu attīstība, mākslīgais intelekts un attālināta komunikācija ietekmēs zīmola uztveri, izstrādi un specifiku – interfeiss kļūs par zīmolu. Lai radītu vispārēju zīmola pieredzi korporatīvajiem dizaineriem būs intensīvāk jāpievēršas tādām tēmām kā mijiedarbība, uzvedība, pakalpojuma dizains, tehnoloģija un saturs (Wuest, 2018).

Īpaša aktualitāte uzņēmumu vidū dotajā brīdī tiek pievērsta sociālo tīklu izmantošanai. Sociālie tīkli ir kļuvuši par visstraujāk augošo mārketinga rīku uzņēmumu vidū. Platformas tiek izmantotas reklāmas un informatīvo materiālu izplatīšanai, uzņēmuma vizuālās identitātes atspoguļošanai, pozicionēšanai un saziņai ar klientiem un partneriem.

Vizuālās identitātes nozīme sociālo tīklu ietekmē radījusi pagriezienu digitālajos plašsaziņas līdzekļos kopumā. Pasaulē populārākā sociālā tīkla vietne Facebook 2012. gada oktobrī sasniedza miljards lietotāju, aptuveni 40% no visiem pasaules interneta lietotājiem un gandrīz 15% no visiem pasaules iedzīvotājiem. Facebook ir kļuvis par digitāli centrētas vizuālās kultūras galveno platformu (Uimonen, 2013).

Zīmola izstrādes paradigmas maiņu un interesantu novērojumu izteicis A. Vēlers grāmatā *“Designing brand identity”*: *“Patērētāji ir kļuvuši par aktīviem zīmolu veidošanas procesa dalībniekiem”* (Wheeler, 2013, 72).

Ja pirms sociālo tīklu aktualitātes zīmola vēstījums tika nodots klientam tiešā veidā, tad tehnoloģiju ietekmē šie abi elementi mijiedarbojas. Šī shēma ietekmē arī korporatīvās identitātes dizainu. Dizainam jābūt viegli un ērti uztveramam, interaktīvam un daudzpusīgam, lai nodrošinātu veiksmīgu tēla pozicionējumu.

Uzņēmuma korporatīvā dizaina izstrādē un veiksmīgā komunikācijā, strādājot ar digitālu platformu jāņem vērā: grafisku elementu izmantošana; video un animāciju iespējas; fotogrāfiju izmantošana; datu vizualizācija infografikās; interaktīvas prezentācijas materiāli; krāsu un kontrastu izmantošana; atbilstoša burtveidola izvēle; skaidrība un vienkāršība informācijas pasniegšanā (Social Media Graphics, 2018).

Augstāk minēto ieteikumu adaptēšana uzņēmuma korporatīvās identitātes dizainā rada veiksmīgu korporatīvo tēlu digitālā vidē.

Skatoties uz nākotnes uzņēmumu korporatīvās identitātes dizainu, kā korporatīvā dizaina piemēru digitālam dzīvesveidam var minēt Ķīnas auto

transporta zīmolu Veltmeister (*Weltmeister*), kas izstrādāts izmantojot grafiskus zīmola elementus un interaktīvu / animētu logotipu.

Digitālās iespējas un izmantošanas aktualitāte, kā arī pieprasījums pēc tās nepārtraukti pieaug. Arī dizains, kā disciplīna, kas saistīta ar vizuālo informāciju ar to mijiedarbojas un tuvākajā nākotnē varētu ieviest nozīmīgas pārmaiņas korporatīvās identitātes dizaina izveides paradumos.

Ekspertu interviju analīze *Analysis of Experts Interviews*

Izstrādātā pētījuma ietvaros tika veikta kvalitatīvās izpētes metode – ekspertu intervijas un to analīze, ar mērķi uzzināt ekspertu viedokli par korporatīvā dizaina izstrādes nozīmi jaunuzņēmuma veiksmīgas darbības nodrošināšanā, par korporatīvās identitātes grafiskā dizaina tendencēm, nozīmīgākajiem elementiem un to veiksmīgu pozicionēšanu.

Kvalitatīva izpēte ir pētniecības pieeja, kurai raksturīga kvalitatīvas un padziļinātas informācijas iegūšana par dažādiem notikumiem un procesiem sabiedrībā (PontusDati, 2018).

Ekspertu intervijas metode pētījumā tika izvēlēta ar mērķi padziļināti iepazīties ar uzņēmuma SIA “Nature Line” darbības jomu un uzņēmuma izveides procesa specifiku, kā arī iegūt vērtīgu un profesionālu viedokli, ieteikumus un atziņas no jomas speciālistiem. Pētījuma ekspertu izvēli noteica profesionālā kompetence uzņēmējdarbības, dizaina un pārtikas ražošanas nozarēs, jomas, kas korporatīvā dizaina izstrādes procesā cieši saistītas ar uzņēmumu SIA “Nature Line”.

Eksperts ir persona, kurai ir specifiskas zināšanās kādā konkrētā nozarē, augsta profesionālā kompetence un autoritāte kādā noteiktā darbības jomā (Letonika.lv, n. d.). Pētījumā piedalījās trīs eksperti: Rēzeknes biznesa inkubatora vadītāja S. Baltace, grafiskā dizainere Mg. design, Mg. art, Mg. paed. N. Losāne un uzņēmuma “Rožlejas” vadītāja S. Ostaša. Intervijās tika iekļauti 6 atvērtā tipa jautājumi. Interviju jautājumi tika analizēti un apkopoti, izceļot galvenās, intervijā minētās atziņas, kas apstiprina korporatīvās identitātes aktualitāti mūsdienās un veiksmīgas korporatīvās identitātes dizaina izveides nepieciešamību dizaina un uzņēmējdarbības telpā.

Jautājot par start-up uzņēmumu darbības aktualitāti mūsdienās, eksperte S. Baltace norāda, ka ņemot vērā pieaugošo pieteikumu daudzumu biznesa inkubatorā, var novērot start-up jomas aktualitātes pieaugumu; eksperti uzsver start-up jomas aktualitāti visos laikos, norādot, ka mūsdienās ir palielinājusies konkurence, arī prasības start-up pozīcijai ir augušas, pieaugot mūsdienu tendencēm, pieaug arī start-up jomas aktualitāte.

S. Baltace norāda, ka no komunikācijas rīkiem uzņēmuma tēla popularizēšanā, sociālie tīkli un elektroniskais mārketinga kopumā ir nozīmīga sastāvdaļa uzņēmuma darbībā mūsdienās, eksperte arī uzsver, ka biznesa inkubatorā 80 % gadījumos uzņēmumam tiek izstrādāta vizuālā identitāte, tas liecina par tēla popularizēšanas aktualitāti. Tiek norādīts arī uz uzņēmuma vīzijas, misijas un vēstījuma pozicionēšanas aktualitāti, pakārtojoties tam vizuālās identitātes un to elementu izstrāde, savukārt, S. Ostaša, min, ka svarīgs ir katrs elements, ko sevī ietver integrētās mārketinga komunikācijas koncepts.

Intervētie eksperti atzīmē vizuālās identitātes nozīmību uzņēmuma veiksmīgas darbības nodrošināšanā, īpaši mūsdienu vizuālās komunikācijas kontekstā, uzsverot, ka vizuālā identitāte nosaka pirmo iespaidu par uzņēmuma. Ir svarīgi vizuālo tēlu izstrādāt tā, lai tas uzrunā klientu, tādējādi sekmē uzņēmuma darbību kopumā. N. Losāne norāda, ka līdzās vizuālajai identitātei lielu lomu spēlē uzņēmuma stāsta spēks, tā intelīģence un patiesums, kā arī uzņēmuma reklāma, tās korektums, izejvielu kvalitāte un komunikācija.

Kā nozīmīgas vērtības, vizuālās identitātes izstrādē tiek atzīmētas vienkāršība un lakonisms, pārdomāti grafiskie elementi un oriģinalitāte, uzņēmuma izvirzītajām vērtībām vizuālajā tēlā jāaskan ar uzņēmuma identitāti.

Jautājot par galvenajiem vizuālās identitātes elementiem jauna uzņēmuma darbībā, eksperte S. Baltace norāda, ka elementi atkarīgi no uzņēmuma specifikas, produkcijas un pozicionēšanas tirgū. Vērtības piedāvājums un vēstījums ir noteicošie elementi, kas attiecīgi nosaka sekojošo uzņēmuma darbību. Ekspertes uzsver arī stila grāmatas izveides nozīmību, darbības pirmsākumos skaidri „definējot” stilistisko virzienu. Ņemot vērā 21.gs. iezīmes, tiek uzsvērtas arī mājaslapas izveide un komunikācija caur sociālajiem tīkliem.

Eksperti viennozīmīgi atzīmē vizuālās identitātes ietekmi veicināt konkurētspēju jaunuzņēmumu vidū. S. Baltace norāda: “Grafiskā, jeb vizuālā identitāte produktam vai uzņēmumam sniedz papildus vēstījumu, kas uzrunā mērķauditoriju, līdz ar to veicina uzņēmuma veiksmīgu darbību”.

Apkopojot ekspertu sniegtās atbildes uz raksta autoru sagatavotajiem intervijas jautājumiem, tiek secināts, ka:

Start-up joma ir aktuāla mūsdienu uzņēmējdarbības telpā, par to liecina strauji pieaugošais uzņēmēju pieteikumu skaits biznesa inkubatora atbalsta programmās. Pirms ražošanas uzsākšanas vērtīgi ir nonākt pie secinājuma, kas ir produkta pievienotā vērtība, caur uzņēmuma vērtību tiek meklēta identitāte, kas ļauj atpazīt uzņēmumu ārpusaulei. Korporatīvajam dizainam ir vērtība un nozīme, tā sakņojas uzņēmuma vīzijas un mērķu atspoguļošanā. Katrs elements, kas atspoguļo uzņēmuma vīzijas, misijas un vēstījuma pozicionēšanu, ir nozīmīgs integrētās mārketinga komunikācijas rīks uzņēmuma darbībā. Ņemot vērā vispārējās tendences mūsdienās, grafiskie elementi atspoguļo produkta vērtību. Vienkāršība, lakonisms un oriģinalitāte ir aktuālākās un raksturīgākās korporatīvā

dizaina stila iezīmes. Ekoloģisko materiālu izvēlei ir izteikta aktualitāte mūsdienās, ekoloģisku materiālu izvēle produkcijas ražošanā vai noformējumā kalpo arī kā uzņēmuma vēstījums, kas uzrunā un piešķir vērtību.

Stila grāmata, kā uzņēmuma identitātes grafisks un strukturēts atspoguļojums, ir viens no nozīmīgākajiem vizuālās identitātes elementiem jauna uzņēmuma darbībā. Spēcīga un uzņēmuma vīzijā balstīta korporatīvā identitāte uzrunā mērķauditoriju un diferencē, nodrošinot konkurētspēju uzņēmumu vidū.

Apkopotā literatūra un statistikas dati apstiprina start-up jomas un bioloģisko uzņēmumu darbības aktivitāti un aktualitāti mūsdienās. LIAA un citu organizāciju sniegtais atbalsts, piedāvātās konsultācijas un programmas sekmē jauno uzņēmēju mērķtiecīgu darbību, nodrošinot ideju realizāciju. Biznesa inkubatora programmas ietvaros tiek aktualizēta arī zīmola un korporatīvā dizaina izstrāde, nodrošinot konsultācijas, mentoru atbalstu un līdzfinansējuma iespējas, ko jaunie uzņēmēji aktīvi izmanto.

Uzņēmuma ietvaros augstu tiek vērtēta koncepcijā balstīta, kvalitatīvi izstrādāta korporatīvā identitāte, kas grafiskajos elementos atspoguļo lakonismu un oriģinalitāti, izceļot uzņēmuma pievienoto vērtību.

Secinājumi **Conclusions**

- Veiksmīgas uzņēmuma darbības stratēģijas pamatnosacījums ir uzņēmuma identitātei atbilstošs korporatīvais dizains un tā pozicionējums. Korporatīvais dizains, kas ir uzņēmuma mērķu, vīziju un pamatvērtību atspoguļojums vizuālā valodā, ir nozīmīga un neatņemama korporatīvās identitātes sastāvdaļa.
- 21. gs. tendences – ilgtspējība un digitalizācija, savas iezīmes iesakņojusi arī korporatīvā dizaina jomā. Līdz ar ilgtspējības un digitalizācijas kā jomu attīstību, tās elementu integrācija grafiskā dizaina jomā, arī korporatīvā dizaina izstrādē pieaug.
- Ilgtspējīgs grafiskais dizainers savā darbībā izmanto stratēģijas, procesus un materiālus, kas ievēro četrus ilgtspējības elementus: sabiedrību, vidi, ekonomiku un kultūru. Tas ir jauns uzņēmējdarbības modelis, kas atspoguļo būtisku pārmaiņu tajā, kā mūsdienu uzņēmumi mēra panākumus.
- Spēcīgs zīmols ir ilgtspējīgs un autentisks, atbilstošs uzņēmuma misijai, vēsturiskajam vēstījumam, kultūras aspektam, uzņēmuma vērtībām un personībai.
- Digitālo tehnoloģiju attīstība ir aktuāla plašā nozaru jomā, līdztekus uzņēmējdarbībai un grafiskajam dizainam, arī uzņēmuma korporatīvajā dizainā digitālās tehnoloģijas un to ietekme uz dizaina izstrādi ir klātesoša.

- Biznesa inkubatora atbalsta pasākumu piedāvājuma specifika, ekspertu intervijas apliecina kvalitatīvas un uzņēmuma identitātei atbilstošas korporatīvās identitātes dizaina izstrādes aktualitāti, nozīmi un vērtību *start-up* uzņēmuma veiksmīgas darbības sekmēšanā.
- Grafiskie elementi atspoguļo produkta vērtību, dizaina izstrādes nosacījumi - vienkāršība, mūsdienīgums un ilgtspējība, definē veiksmīga korporatīvā dizaina un uzņēmuma logotipa grafisko izstrādi.
- Ņemot vērā *start-up* uzņēmuma situācijas specifiku, patstāvīgas darbības uzsākšanas sākumposmu, korporatīvā dizaina izstrādē pastāv kavējoši apstākļi, konkrētas informācijas saņemšanā, jo uzņēmuma darbība vēl nav pietiekami strukturēta, paralēli notiek eksperimentāls darbs produktu apstrādes tehnoloģijas pielietojumā un produktu receptūras izstrādē.

Summary

Theories and research studies mention corporate design as one of the elements that form corporate identity; the sources also call it corporate visual identity, visual profile, corporate identity design, and visual identity. In the context of the modern visual and digital age, researchers emphasise the importance of corporate identity design in the operation of a company; a growing trend in creating a corporate identity design is observed among companies as well. One of the prerequisites for a successful company operation strategy is a corporate design that corresponds to the company identity and its positioning.

Considering the rapid development of industries and the 21st century trends – sustainability and digitalisation – has established its traces also in the the industry of corporate design.

Following the development of sustainability and the relevance of the field, the notion of corporate sustainability has become an important business approach and a basis for business models. Sustainability requires effective integration of social and environmental issues in the vision, values, culture, and business of the company. Organisations use corporate identity as a platform to create and introduce a sustainability-oriented identity in the company operation. Summarising recommendations of different authors regarding the opportunities for more sustainable graphic design, several examples of main solutions can be highlighted: using recycled paper, wood-free paper, or alternative materials; printing with plant-based or environmentally friendly ink; efficient use of colour; reducing pollution; printing on both sides of paper; effective choice of marketing materials; creating digital PDF files instead of printed materials. With the development of sustainability as a field, integration of its elements in the field of graphic design, including corporate design, is growing.

The development of digital technologies is relevant in a broad field of industries. Together with entrepreneurship and graphic design, digital technologies and their influence on design creation is also present in company corporate design. The following needs to be taken into account when creating a company corporate design and for successful communication when working with a digital platform: the use of graphical elements; video and animation opportunities; the use of photographs; data visualisation using infographics; interactive presentation materials; the use of colours and contrasts; the choice of appropriate typeface; clarity and simplicity of the presentation of information. Digital opportunities and the

importance of using them, as well as their demand, are constantly growing. Design as a discipline related to visual information also interacts with digital opportunities and in the nearest future could introduce significant changes in corporate identity design creation habits.

The specific nature of the support measures offered by the Business Incubator as well as expert interviews attest to the relevance, importance, and value of creating a quality corporate identity design that corresponds to the company identity when promoting successful operation of start-up companies.

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**СРЕДСТВА И ПРИЕМЫ ПРОФИЛАКТИКИ И
КОРРЕКЦИИ ДЕВИАНТНОГО ПОВЕДЕНИЯ
ПОДРОСТКОВ СРЕДСТВАМИ
ХУДОЖЕСТВЕННОГО ОБРАЗОВАНИЯ И
КУЛЬТУРОЛОГИИ**

*Means and Methods of Prevention and Correction of
Deviant Behavior of Adolescents by Means of Art
Education and Cultural Studies*

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Abstract. *The article deals with the tasks of using art education in the process of organizing training. The research is devoted to the disclosure the pedagogical potential of art education. The research reveals the directions of art education and cultural studies based on theoretical analysis. The study reveals the effect of art education and cultural studies in the correction of deviant and delinquent behavior of young people and adolescents. The article summarizes the available means and techniques of art education, such as music, art, dance, theater and many others. The study analyzes the principles of choosing specific art forms in the educational process. The study demonstrates that book therapy techniques can be used not only as a preventive program, but also as an early intervention program and a program for correcting deviations. The article reveals the sequence of methodological steps when using the techniques of book therapy. The study of the use of techniques of art education and cultural studies in the correction of deviant and delinquent behavior reveals the effectiveness of the use of various genres of fine art. The creation of a work of art contributes to the socialization of the student, reveals the creative potential, contributes to the process of emotional and social comfort of the student. The analysis of the practices of educational organizations shows the importance of professional experience in the field of art education, demonstrates the discovery of the most effective in the aesthetic sense techniques of artistic processing of*

material Educational organizations make extensive use of dance art techniques. Musical activity allows adolescents to achieve a certain level of cheerfulness. This is recorded by experimental studies in various countries using music therapy techniques in the educational process. Dance practices are also used by educational organizations. Dance and movement therapy suppresses aggression, replaces destructive forms of behavior with socially adequate forms of expression and the development of alternative action strategies.

Keywords: *art education, deviant behavior, art pedagogy.*

Введение ***Introduction***

Деструктивные процессы, затронувшие различные сферы общества, повлекли за собой рост преступности не только среди взрослого населения, но и среди молодёжи. Значительная часть правонарушений совершается педагогически- запущенными несовершеннолетними подростками.

Одним из факторов эффективности преодоления и предупреждения девиантного поведения несовершеннолетних является наличие гуманистической ориентированности социальных и образовательных учреждений, активное использование педагогического потенциала культуры и искусства и художественно-эстетическое воздействие на подростка. Приобщение к искусству способствует оздоровлению общества, воспитанию социальной терпимости и снижению агрессивности в отношении других людей. Очевидно, при этом, что меры по профилактике асоциального поведения подростков, прежде всего, должны быть направлены на ранее предупреждение и коррекцию с учетом современных научных методов и подходов, ресурсов и возможностей (Janz, Becker, 1984).

Подходы к профилактике девиантного поведения подростков начали появляться три десятилетия назад, с упором на поддержку молодежи до появления проблемного поведения. Все чаще исследователи и практикующие специалисты пытались выяснить обстоятельства (семьи, школы, сообщества, группы сверстников) жизни детей (Ajzen, Fishbein, 1980). Часто основанные на предшествующих усилиях по коррекции, большинство программ профилактики изначально были сосредоточены на предотвращении единичного проблемного поведения. Профилактика проблемного поведения претерпела собственную эволюцию. Многие программы ранней профилактики не основывались на теории и исследованиях по развитию ребенка (Ennett, Tobler, ed., 1994). Стратегии профилактики менялись по мере оценки программ, особенно потому, что некоторые подходы не показали положительного воздействия на снижение употребления наркотиков среди подростков, подростковой беременности, заболеваний, передающиеся половым путем, неуспеваемости или

правонарушений (Malvin, Moskowitz, ed. 1984). Многие исследователи уделяли большое внимание роли художественного образования и культуры в профилактике девиаций и делинкветного поведения подростков (DiCenso, Alba, ed. 1997).

Целью исследования является выявление приемов профилактики и коррекции девиантного поведения детей и молодежи в специализированных учебно-воспитательных учреждениях и систематизация практик по степени их имплементации.

Методология *Methodology*

Ключевой поворотный момент в этой области произошел, когда исследователи и поставщики услуг начали использовать информацию из лонгитюдных исследований, которые выявили важные предикторы проблемного поведения подростков. Второе поколение усилий по профилактике было направлено на использование информации о предикторах, чтобы прервать процессы, приводящие к определенным проблемам поведения подростков. Многие исследователи отмечают, что программы профилактики злоупотребления наркотиками начали рассматривать эмпирически определенные предикторы употребления наркотиков подростками, такие как влияние сверстников и общества на употребление наркотиков и социальные нормы, оправдывающие или продвигающие такое поведение (Ellickson, Bell, 1990). Эти профилактические меры часто направлялись теориями о том, как люди принимают решения, такими, как теория разумного действия и модель веры в здоровье.

Многие выступили за акцент на факторах, способствующих позитивному развитию молодежи, а также сосредоточении на предотвращении проблем. Подобная озабоченность помогла расширить дизайн программ профилактики и включать компоненты, направленные на продвижение позитивного развития молодежи. Это привело к формированию консенсуса о том, что для успешного перехода к взрослой жизни требуется нечто большее, чем просто отказ от наркотиков, насилия, неуспеваемости или преждевременного развития сексуальной активности. Содействие социальному, эмоциональному, поведенческому и когнитивному развитию детей стало рассматриваться как ключ к предотвращению проблемного поведения.

Прежде чем принимать решение о выборе конкретных форм искусства, важно определить потребности и интересы конкретной группы подростков, поскольку выбор вида искусства должен соответствовать

ожидаемым результатам. Так, если одним из ожидаемых промежуточных результатов является улучшение показателей по чтению, то целесообразным представляется выбрать форму искусства, которая позволит включить в инструкцию некоторые компоненты чтения и выполнения письменных работ, разработанные для такого типа учеников.

Несмотря на то, что окончательный вывод о формах искусства, которые «работают» лучше всего, сделан не был, некоторые общие закономерности и предварительные выводы могут быть сформулированы.

1. Формы искусства, работающие лучше всего, по общему признанию, - те, в которых подростки смогли быстро производить качественный продукт (например, проекты мозаичного искусства).
2. Подростки вовлекаются в участие в видеопроектах легче, чем в фото-проекты или театральные проекты.
3. Вовлечение подростков в процесс принятия решений по предмету художественного проекта создает атмосферу сопричастности к процессу.
4. Застенчивые, интроверты и «тихие» молодые люди часто тяготеют к визуальному искусству, потому что эта форма выражения не требует от них вербальной коммуникации; скорее они предпочитают отражать свои мысли, чувства и эмоции в создаваемых ими образах.
5. Целесообразно начинать работу с тех художественных проектов, которые позволяют добиться немедленного успеха. По мере того, как занятия продолжаются, подростки должны иметь возможность заниматься в проектах, которые занимают больше времени.

Приведем конкретный пример из практики американской программы «Art-at-Work». Во время первой 12-недельной сессии программы подростков обучали дизайну мебели и фотографии. Эти формы искусства были выбраны в связи с потенциалом быстрого повышения самооценки участников программы. Команда проекта ожидала, что подростки увидят конечный продукт, что мотивирует их продолжить занятия искусством. Вторая 12-недельная сессия была посвящена мозаике, рисунку, живописи и печати. Команда проекта ожидала, что, овладев любым из этих видов искусства, а также получив другие навыки профессиональной подготовки в рамках программы, подростки будут иметь повышенный потенциал участия в рабочем процессе. В этой программе искусство рассматривается как средство обучения связанным с работой навыками, таких как умение решать проблемы, критическое мышление, способность заполнять листы учета рабочего времени, работать в команде, а также доводить до

успешного завершения начатую работу. Из всех видов искусства молодежь больше всего тяготела к мозаике. Координаторы программы отмечали, что всякий раз, когда участники чувствуют неуверенность или беспокойство, они возвращаются к работе над мозаикой.

В данном случае подростки могли производить качественный продукт достаточно быстро, ощущая удовлетворенность и подтверждение своего успеха.

1. При наличии возможности следует использовать принцип ротации, позволяющий подросткам сделать самостоятельный выбор вида художественной деятельности. Так, в рамках программы «Urban smARTS» к каждой школе, участвующей в программе, прикреплены по три художника: по визуальному искусству, художник по танцам и художник, представляющий театр, музыку, медиа-искусства и литературу. В течение первых семи недель программы школьники «вращаются» среди художников, чтобы иметь возможность прочувствовать каждую художественную дисциплину и познакомиться с каждым из художников. Как правило, ротация позволяет каждому школьнику проводить по одному занятию в неделю с каждым художником. Тем самым у каждого участника появляется возможность изучать широкий спектр художественных форм.

2. Независимо от того, какой вид искусства, в конечном счете, выбирается, наиболее предпочтительными для подростков формами выступают короткие мероприятия, которые способны быстро обеспечить признание успеха.

3. Проведенный авторами социологический опрос среди преподавателей специализированных учебно-воспитательных учреждений Ленинградской области (репрезентативный объем выборки составил 241 человек) позволяет говорить об активности применения приемов и инструментов художественного образования и культурологии в организациях, выявить их эффективность в коррекции девиаций воспитанников и молодежи.

Результаты исследования

Research Results

Интерпретация результатов позиций респондентов среди преподавателей специализированных учебно-воспитательных учреждений Ленинградской области позволяет говорить о превалировании положительных оценок и суждений относительно эффективности используемых художественно-культурологических средств профилактики и коррекции девиантного поведения подростков. Исследование показало, что чаще всего в учреждениях практикуются следующие приемы и

инструменты коррекции девиантного поведения: физическая культура и спорт - 79%, музыкальная терапия - 64%, изо-терапия - 56%, танцевально-двигательная терапия - 57%, музеи, выставки – 48%.

Низкой степенью эффективности используемых в учреждениях региона художественно-культурологических средств профилактики и коррекции девиантного поведения подростков, по мнению опрошенных респондентов, обладают такие методы как: туризм и рекреация - 72,00%, в меньшей степени такие инструменты как - драма-терапия - 34%, музеи, выставки - 23%, танцевально-двигательная терапия - 19%, музыкальная терапия - 16%.

Нельзя не отметить, что сформировавшаяся ограниченная инфраструктурная среда учреждений в условиях ограниченности материальных и кадровых ресурсов, соответственно представляет определенную ограниченность в сфере предпочтений воспитанниками направлений образовательных программ предлагаемых самими учреждениями.

Интерпретация позиций респондентов позволяет говорить о значительном превалировании предложений для воспитанников, а значит и для востребованности программ спортивно-оздоровительной направленности – 51% (в силу вероятной простоты методического и организационного сопровождения), общеразвивающие – 16,3%, художественные и музыкальные программы – 10,2%, профессионально-ориентированные – 4,3%.

Таким образом, можно говорить о потенциале использования средств и методов художественно-культурологических средств профилактики и коррекции девиантного поведения подростков, необходимости профессионального развития кадров и педагогического потенциала коллективов воспитательных учреждений, внедрения новых методов художественно-культурологических программ обучения и воспитания.

Далее проанализируем систему методов художественно-эстетического образования направленного на коррекцию девиации подростков.

При выборе конкретного художественного метода, необходимо учитывать следующие основные моменты:

1. Сущность метода и специфика его применения.
2. Потенциал и эффективность данного метода.
3. Организационно-методические приемы использования.

Общим для всех методов также являются три этапа прогресса или личностного роста подростка: а) выявление, б) катарсис, в) прозрение или разрешение. Остановимся несколько подробнее на отдельных направлениях использования методов искусства и культуры для профилактики и коррекции девиантного поведения подростков.

Книготерапия и литературное творчество.

Книготерапия может быть использована в качестве: профилактической программы; программы раннего вмешательства; программы коррекции.

Специалисты предлагают руководствоваться следующими 10 шагами по реализации книготерапии в классе /группе.

1. Развивайте отношения доверия и уверенности. Учителя должны установить доверительные отношения с учениками до того, как они начинают использовать книготерапию. Подростки вряд ли поделятся глубокими эмоциями со взрослыми, которым они не доверяют.

2. Определите других сотрудников образовательного учреждения, которые могут помочь в осуществлении книготерапии. В зависимости от специфики конкретной организации это могут быть: консультанты, психологи, администраторы, воспитатели, социальные работники, медсестры, учителя со специальным образованием и др.

3. Заручитесь поддержкой родителей или опекунов учащегося. Родители могут быть большой поддержкой и источником информации в отношении поведения подростка. Они могут дать совет о том, какие направленные воздействия эффективны, какие нет. Однако следует быть осторожными, если проблемы учеников тесно связаны (вызваны) с их отношениями с родителями.

4. Определите конкретную проблему, с которой сталкивается конкретный подросток. Учителя должны наблюдать за поведением учащихся и говорить с ними о своих чувствах, в т.ч. о школе, социальном положении и других проблемах.

5. Сформулируйте цели и организуйте соответствующие мероприятия для решения проблемы. Книготерапия должна иметь конкретную цель, определенные результаты и оцениваться на предмет ее эффективности.

6. Исследуйте и подбирайте литературные произведения, соответствующие ситуации. Литературные произведения должны быть выбраны на основе: а) релевантности возрасту и способностям подростка к чтению, б) изображения интересующей темы (например, бездомность), в) реализма и г) литературного качества.

7. Предоставьте подростку конкретное литературное произведение. Если литература, предназначенная для использования в рамках книготерапии, предназначена только для одного подростка или для небольшой группы, педагог должен предоставить ее только этим ученикам. Он должен объяснить ученику, что он заметил неодобряемое поведение и предложить работать над ним совместно через книготерапию.

8. Организуйте деятельность по чтению. Для подростков важно взаимодействовать с литературой по книготерапии так же, как и с любой другой литературой.

9. Проводите пост-чтения. Педагоги должны путем обсуждения литературного произведения поощрять подростков к тому, чтобы размышлять и обсуждать, как литературное произведение соотносится с их собственной жизнью и ситуациями. Педагог должен встречаться с ними индивидуально, чтобы обсудить проделанную работу, мысли и чувства подростков, вызванные прочтением литературного произведения. 10. Оцените влияние книготерапии на подростка. Обратите особое внимание на успехи и те аспекты поведения, которые изменились.

Основная идея активного включения подростков в литературное творчество заключается в том, чтобы дать им возможность «переписать» историю своей жизни, намеренно изменив сценарий с преступного на не содержащий преступления нарратив, чтобы поддержать процесс отказа от преступной деятельности и ре-интеграции в общество.

В большинстве занятий по литературному творчеству участвует пятнадцать-двадцать человек, а также 2-4 преподавателя. Каждое занятие длится около шестидесяти - девяносто минут и состоит из еженедельного обзора процесса подачи/публикации материалов, времени для обмена сочиненными работами и двух или трех мероприятий по написанию работ. Структура занятия может варьироваться в зависимости от места проведения и недели, часто фокусируясь на определенных темах (таких как тело, личность или детские воспоминания) или формах написания (таких как мемуары, стихи и т.д.). Обратная связь является неотъемлемой частью творческого процесса, авторы учатся принимать участие в заседаниях по рецензированию и критике. Это позволяет глубже приобщиться к трудам других членов группы или к материалам, привнесенным преподавателями.

В целом, деятельность литературных творческих студий нацелена на: создание пространства для творчества и критической рефлексии в учреждениях, где такое индивидуальное и коллективное мышление редко вознаграждается; разработку и содействие разработке образовательных программ, развитие революционного подхода к грамотности как к активизму; знакомство участников с творчеством разных писателей и с разнообразием литературных жанров/стилей; создание возможностей для авторов-участников обсуждения своей работы с аудиторией. Таким образом, в дополнение к общей цели - предоставлению возможности для творческого самовыражения, эмоционального развития и исцеления, программа также подчеркивает связь индивидуума с более широкими вопросами идентичности и справедливости через публикации работ.

Следует особо подчеркнуть, что для нормального функционирования подобных программ крайне важным является привлечение внимания общественности, например публикацией работ, публичным прочтением и обсуждением. При этом необходимо осознавать, что реализация подобных программ и возможность представления творческих литературных сочинений сопряжена с многочисленными барьерами и самыми разнообразными трудностями. Эти трудности связаны с самой идеей создания литературного произведения как «терапии». Существует множество барьеров, препятствующих тому, чтобы литературное творчество достигало целей реабилитации и преобразования, и это справедливо не только в отношении замкнутых/закрытых учреждений, но и вообще, любых ситуаций, когда литературное творчество используется как механизм роста, эмоционального развития и исцеления.

Изобразительное искусство.

В рамках занятий различными жанрами изобразительного искусства особое внимание необходимо уделять двум взаимосвязанным аспектам. Во-первых, функциям, которые выполняют материалы и другие объекты, такие как инструменты для живописных и скульптурных практик в процессе занятий несовершеннолетних правонарушителей: материалы и инструменты в качестве воспитательных регуляторов; материалы как основа и носители социальных отношений; материалы как преобразователи эстетических предпочтений. Во-вторых, в центре внимания находятся отношения подростков к создаваемым объектам и условиям работы над ними: автономная и спокойная работа над объектом; представления: процесс их возникновения и изменения; завершение экспонатов и то, что они остаются в мастерской или выставляются на продажу. Проекты, в которых подростки создают художественные объекты, открывают им материально-эстетический опыт и могут формировать их с культурно-художественной точки зрения. Кроме того, при определенных условиях такие культурные практики раскрывают потенциал ресоциализации.

Место, где несовершеннолетние занимаются искусством, например, скульптурой, и его атмосфера имеют важное значение для входа в практику работы со скульптурой и связанные с ней учебные и культурнообразовательные процессы. Главной особенностью места, где проходят занятия, по мнению и специалистов, и самих молодых людей, является его аутентичность как места, расположенного вне школьных классов, и отличающееся непохожестью самой его атмосферы. Молодежь воспринимает скульптурную мастерскую как лишенное жестко установленного порядка, странное, авантюрное и хаотичное место, где они получают разнообразные и удивительные чувственные впечатления.

Специфика занятий скульптурой для подростков нередко заключается в том, что по завершении созданные ими работы часто остаются в мастерской. Многие не могут взять с собой произведения искусства, и это может вызывать у них противоречивую реакцию. Однако то, что молодые люди не должны брать с собой свои работы часто делается намеренно: идея, состоит в том, что, оставляя для продажи созданные ими произведения искусства, молодые люди способствует продолжению некоммерческого проекта, поддерживая таким образом других подростков-правонарушителей, а также их ресоциализацию и, тем самым, компенсируя ущерб, нанесенный обществу своим преступлением.

Одним из видов изобразительного искусства, обладающим определенной спецификой, являются художественные ремесла. В рамках данного вида деятельности подростки овладевают культурой трудовых профессиональных навыков и технических приемов художественной обработки различных материалов (металла, глины, кожи, тканей и т. д.), что позволяет им создавать художественные изделия. Профессиональный опыт в этой сфере складывается путем открытия наиболее эффективных в эстетическом смысле приемов и техники художественной обработки материала, доведения ее до совершенства.

Музыкальное творчество.

Речь идет не просто о пассивном слушании музыки, а об активном участии в процессе музыкального творчества (пение: сольное и хоровое, игра на музыкальных инструментах, в том числе на редких, сочинение музыки и т.п.). Эта активность не похожа на отпускаемое по рецепту лекарство, прием которого может вызвать определенную реакцию. Музыкальная активность позволяет подросткам достичь определенного уровня жизнерадостности и спонтанности. На основе экспериментальных исследований, проведенных до и после музыкальной терапии, наиболее эффективными методами оказания помощи несовершеннолетним правонарушителям с поведенческими проблемами были признаны хип-хоп и рэп-терапия. Некоторые молодые люди положительно реагируют на рэп как на «свой» жанр, близкий и естественный для них по своему происхождению. Это является свидетельством того, что для того, чтобы находить отклик у молодежи, проекты должны использовать соответствующие культурные ресурсы, включая музыкальные жанры. Вместе с тем, привязанность к определенным жанрам не может быть неизменной, чтобы не ограничивать возможности развития, ибо проекты создания музыки могут также расширить кругозор и устранять существующие ограничения.

Танцевальная практика.

Различного рода танцевальные проекты позволяют подросткам сформировать собственное пространство свободы, где они могут, сами того не сознавая, взаимодействовать со своими сверстниками наиболее гармонично. Танцевальная и двигательная терапия позволяет подавлять агрессию, замещая ее социально адекватными формами выражения и разработкой альтернативных стратегий действий. Физические формы самовыражения способствуют регуляции агрессивных импульсов и создают дистанцию, что способствует формированию индивидуальных когнитивных конструкций для идентификации и отражения агрессии. Оценивая возможности танца и художественного изображения через движения тела, можно представить тело как контейнер, который создает возможность выдерживать такие эмоциональные напряжения и выражать свои эмоции в связи с ними. Эффектом этих символических воплощений в ходе танцевального драматургического процесса становится повышенная мотивация, оказывающая терапевтическое воздействие. Несоввершеннолетних нарушителей закона движение в различных танцевальных и двигательных активностях стимулирует к освоению символического уровня невербального выражения чувств и эмоций, что позволяет им лучше взаимодействовать друг с другом и с окружающими. Через движение участники получают новую для них информацию о собственном теле, начинают чувствовать его, находят психологический баланс, развивают конструктивные формы отношений с окружающими людьми и обретают чувство ответственности перед собой и перед обществом. В конечном итоге, все меры в рамках включения делинквентных подростков в художественно ориентированные проекты направлены на их полную ресоциализацию.

Заключение Conclusions

В работе представлены эффективные технологии профилактики и коррекции девиантного поведения подростков, основанные на использовании различных форм искусства: книготерапия и литературное творчество, изобразительное искусство, музыкальное творчество, танцевальная практика, театральное творчество. Несмотря на то, что окончательный вывод о формах искусства, которые «работают» лучше всего, сделан не был, некоторые общие закономерности и предварительные выводы могут быть сформулированы.

Вовлечение подростков в процесс принятия решений по предмету художественного проекта создает атмосферу сопричастности к процессу.

Целесообразно начинать работу с тех художественных проектов, которые позволяют добиться немедленного успеха. По мере того, как занятия продолжаются, подростки должны иметь возможность заниматься в проектах, которые занимают больше времени. Независимо от того, какой вид искусства, в конечном счете, выбирается, наиболее предпочтительными для подростков формами выступают короткие мероприятия, которые способны быстро обеспечить признание успеха. При выборе конкретного художественного метода, необходимо учитывать следующие основные моменты: сущность метода и специфика его применения; потенциал и эффективность данного метода; организационно-методические приемы использования.

Проведенный анализ позволил не только оценить эффективность тех или иных форм реализации социальной деятельности воспитанников направленной на успешность социализации личности несовершеннолетнего и профилактики девиантного поведения, но и провести соответствующую оценку эффективности. Как видно из проведенного анализа респонденты предпочитают занятость воспитанников в учреждениях дополнительного образования – 59% респондентов, также опрошенные придерживаются необходимости повышения занятости детей в каникулярное время – 52%, в т.ч. занятость учащихся общественно-полезным трудом – 50%, занятость детей в общественных организациях – 44,8%. Исследование позволили выявить доминирование индивидуального подхода к разработке художественно-культурологической модели профилактики и коррекции девиантного поведения, каждый третий респондент (28,6%) говорит об индивидуальном подходе в использовании приемов художественно-эстетического образования.

Summary

Research in the field of art education is becoming increasingly important. Art pedagogy, the potential of art education techniques is becoming more and more in demand in educational organizations. The research carried out in special educational institutions in Russia demonstrates the active use of techniques and methods of art education. The use of methods of art pedagogy contributes not only to the disclosure of the creative potential of students, but also contributes to an increase in success in teaching in other subjects of the educational program: mathematics, physics, computer science and others. Techniques and methods of art education contribute to the correction of destructive behavior, delinquent manifestations of the student's personality.

The arsenal of art education widely used in the education system contributes to the disclosure of the creative potential of the individual, reveals talents among young people, and increases the efficiency of the educational process. Methods are used such as teaching art, dance and music, literature and theatrical activities, physical education and teaching plastic

dance. The use of the pedagogical potential of art education contributes to an increase in the stress resistance of a teenager, expands special knowledge and skills, and promotes the expansion of social communications and contacts. The use of art education techniques solves the problem of improving self-regulation, the formation of a positive social experience and cultural outlook. The study shows that in this way the effect of developing social skills is achieved, eliminating the deficit in the behavioral repertoires of a deviant adolescent. Research shows the importance of art as a creative process that results in a therapeutic outcome. Art programs in educational and correctional settings are usually used philosophically as therapy, although there are many approaches that justify forms of creative art as a mediated process of psychotherapy.

The conducted sociological research on the example of specialized educational institutions of the Leningrad region made it possible to identify the dominant practices of culturological and art education, such as sports and recreation, music, art therapy methods. The majority of respondents (managers and teachers of organizations) note not only the interest and motivation of students to use artistic methods teaching and education, but also the demand for these methods.

The importance of using the techniques of art education as well as art therapy demonstrates the effectiveness and efficiency of these practices in special educational institutions.

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BRIDGING THE CITY: CONNECTING ART, PERFORMANCE DESIGN, ENVIRONMENT AND EDUCATION

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Abstract. *This study explores knotworks and networks within art, participatory performance design, the environment and education specialists and institutions within the case-project “Nomadic Radical Academy”, realised in 2019 and 2020. The novelty of the research lies in its investigation of how international collaborations impact the performance pedagogy project at the local level. The project bridged a wide spectrum of actors in order to design an interactive space and participatory infrastructure involving a diverse variety of stakeholders. The projects were created by the author of this paper and involved the art venue Gallery Meno Parkas in Kaunas, local Kaunas schools and environment-friendly local art initiatives, families in Kaunas, Kaunas Municipality, The Lithuanian Council for Culture, a performance designer and international artists from the Baltic-Nordic region. The author created the performative milieu in the gallery space with the intention of educating children and young people about the environment and climate change through performance pedagogy methods. The research question is as follows: How are the knotworks and networks created during the planning and realisation of the international performance pedagogy project, and how do they target the local community and influence projects locally in real-time? The study materials were collected by arts-based methods and analysed by utilising reflexive research. The data collected during the planning and implementation phases are the author’s notes and reflections, notes from feedback and discussions with the involved artists and photos and videos. This research can be valuable to educators, performance designers and artists interested in knotwork- and network-building. This research focused on the planning and realisation of the project by involving international performance professionals in site-specific projects designed for local communities.*

Keywords: *arts-based research, knotworks, networks, participatory infrastructure, participatory performance design, performance pedagogy.*

Introduction

This article explores connections formed by the author, conceptualised as knotworks and networks. This was done to realise the participatory performance pedagogy project within the author’s local community, which aims to educate children and young people about responsible eco-friendly behaviours and responsible consumption. This study is the part of the author’s doctoral research,

which is themed around the new format of performance art documentation using biometric data collected from the performing body. This is a collaborative process involving international peers-performance artists into the projects locally. This article analyses collaborations between the performance artists and organisations. The examples are the author's projects, for which collaborations were at the core. *The Nomadic Radical Academy: The Good, The Bad and The Art 2020* involved the following contributors: Dr. Julia Kurek (PL), Evelina Šimkutė (LT), PhD Cand. Rait Rosin (EST), Tue Brisson Mosich (DK / LT) & Julija Rukanskaitė (LT/SE), PhD Cand. Linda Teikmane (LV) and Kaspar Aus (EST), among others. The project was realised with the support of the Gallery Meno Parkas, Kaunas Municipality and The Lithuanian Council for Culture. It builds upon the first test event, *The Nomadic Radical Academy for the Climate Change Awareness* in 2019. This event involved Tue Brisson Mosich (DK/LT), Nanna Ylönen (FIN), Marta Gil (SE), Sanna Blennow (SE), Rikke Goldbech (DK), Anne-Louise Knudsen (DK), Anders Werdelin (DK), and Dr Adomas Danusevičius (LT/DK). Collaborations were with Kaunas-based Lithuanian artists and initiatives—which involved Evelina Šimkutė, Šilainių Sodai and Raimondas Binkauskas, along with others through the support of the Gallery Meno Parkas, which provided the venue and was self-funded by the project's author. The research aim is to analyse the collaborations (identified as knotworks and networks) within the case study project and their impact on it. The methods employed to do this are arts-based research (Leavy, 2015) (in the phase of the material gathering) and the reflexive research (Weber, 2004) (in the phase of reflecting on the collected data).

Theory and Previous Research

The theory and concepts used within this study are performance pedagogy, knotworks, networks, participatory infrastructure and arts-based research. Infrastructure is explained as the interrelations connecting venues, technologies and practices (Karasti, 2014). In this article, the term 'participatory infrastructure' is used when analysing the provided case, which underlines the active involvement of all the stakeholders in the project. Participatory infrastructure is often presented as a horizontal and local process (Bødker, Dindler & Iversen, 2017; Star & Ruhleder, 1996; Star & Bowker, 2002). In the presented case study, it was considered the meeting point between Northern European experts and the local experts, institutions and community targeted at the local process. In this way, as in the reviewed literature sources, participatory infrastructure places institutions, users and facilitators into collaborative relationships and arenas of interconnections (Kensing & Blomberg, 1998; Gärtner & Wagner, 1996).

The term 'knotworks' refers to the temporary networks created for the duration of the project (Bødker et al., 2017). Meanwhile, networks are the

durational connections that immerse into the project from the author's previous collaborations; alternatively, they might have a speculative durational impact on the author's practice and the community (Bødker et al., 2017). Performance pedagogy is theoretically explained as a pedagogy that involves performativity and the performative behaviour of the teacher or facilitator (Pineau, 1994; Griniuk, 2020). In the learning environment within this case study, performance pedagogy is grounded in Fluxus pedagogy (Griniuk, 2020). The participatory performance pedagogy design described in this article falls under the same definition as the discipline of performance design. According to performance scholar Richard Schechner (1977), performance can be defined as a wide spectrum of artistic activities that involve space, time, the human body, and an audience. Thus, in the described cases, participatory performance pedagogy is an extended term for performance as specified by the author.

Methods and Materials

International networks and knotworks that manifested through a performance pedagogy project within the local community co-shaped and influenced the project as it unfolded on site. Arts-based research (ABR) is theorised as a data-collection method with art at its core (Barone & Eisner, 2012; Leavy, 2015). In the studied cases, performance as art was a means for gathering data at all the stages of project planning (i.e. when designing the project with the involved stakeholders) and implementation. Participatory and dialogue-based art is at the core of ABR (Hammersley and Knowles, 2016), as the dialogue can be understood as the artist's way of navigating and developing knotworks and networks in order to bring the project into the local community.

Data collection was implemented utilising ABR, with performance art used as a means to create and collect the materials. The method of reflecting on the research data is based on the author's experience and previous practices within the field of performance. This method is defined as reflexive research by sociologist and scientist Ron Weber (2003), according to whom the reflexive researcher belongs to the field of his or her study and reflects on data from the perspective of this experience. The author of this paper has been involved in collaborations (knotworks and networks) within the field of performance pedagogy and education during the last decade—for example within the longitudinal project by the author of this paper "BiteVilnius" (BiteVilnius, 2020). The data collected during the projects in 2019 and 2020 were photos and videos, notes from discussions with co-facilitators, and facilitator-observer notes. These materials were collected and organised into data folders, each of which was labelled based on the date of the corresponding part of the event.

The Cases

Over the past decade, the author has been working in the field of participatory performance. Her specific interest in performance as the pedagogical means aimed at children and youth, combined with her interest and passion for a clean environment and responsible consumption, has resulted in the durational collaborative performative activities. This was the particular format of The Nomadic Radical Academy. The first project *The Nomadic Radical Academy for Climate Change Awareness 2019* was implemented at Gallery Meno Parkas in Kaunas in the format of three days of performances and two weeks of installation space at the gallery, which contained the residue from the performative activity and its video documentation. The theme of this project was a post-apocalyptic world impacted by climate change. The installation contained shantytown constructions, with tents inhabited by the artists and children during the project. There, performative activities took place. The participants were children and their families. When entering the installation at the gallery space, children occupied the tents, which were pre-built from recycled and found materials. They were using them during the breaks. The performative actions were divided into 4-5 segments and the children and involved grown-ups were participating in 1-2 hour sessions with the facilitators. The thematic framework was centred around climate change and responsible behaviour in natural environments.



Figure 1 The Nomadic Radical Academy for Climate Change Awareness 2019
(Photo: Antanas Untidy)

The second edition of the project took place in August 2020 at the Gallery Meno Parkas and occupied the entire three floors of the gallery. The activity was

scheduled over nine days, during which the children worked with the main facilitator (the author of this article). Guests were present for nine hours each day. The overwhelmingly intensive performance environment stretched over the gallery spaces, outdoor public areas near the gallery, and the inner yard of the gallery, which was the collective space of all the involved neighbourhoods. The performance art program was a compilation of short performance exercises and live activity with breaks in between them. The program consisted of workshops and participatory performances, which involved the children. The activities had variable duration - from 20 minutes to 1,5 hours. The theme of all the workshops and performances was transcorporeality, meaning the combination of human, non-human bodies and more than human bodies in the socio-cultural context. The children were encouraged to think about human and nature relations and interhuman connections. The participants comprised over 20 local children (7-14 y.o.) from schools in the Kaunas municipality, one of whom was a disabled child with special needs. The children participated voluntarily on the basis of the open call application. A few facilitators-volunteers were involved for periods ranging from a few hours to a few days. All volunteers were artists, environmental activists and gymnasium students from the local Kaunas community.



Figure 2 The Nomadic Radical Academy session facilitated by local artist and activist Evelina Šimkutė in 2020 (Photo: Raminta Jodikaitytė)

Research Results

This paper distinguishes the main research results, which are based on the two analysed case projects, as well as literature sources and previous research exploring the concepts of networks and knotworks across a wide scale of participatory design. Within this paper, these concepts are specified particularly for the analysis of the participatory performance pedagogy project as the arts-based research case. Within the design of projects such as *The Nomadic Radical Academy*, interhuman connections are speculatively intertwined in the planning phase. In this phase, the major insights were related to the desired outcome via interpersonal impact and empathic meaning-making towards nature and human behaviour. The international artists met within the local community and worked towards deepening their knowledge of the local natural environments and discussing how individuals could change their behaviour to become more friendly to nature. One of the examples is the artistic action towards re-thinking the concept of “trash” and the responsibility to recycle, which has been practised in Lithuania on the municipal level only over the past few years.

The aim of involving international performance art professionals is to connect the participants by artistic means, empathically, to the concept of responsible behaviours. This empathic connection is targeted to reach the deeper levels of critical thinking and foster reflexive pedagogy (Rothman, 2014) and the performance pedagogy (Griniuk, 2020) aspects involved as the core dialogical tools. The speculations within participatory performance pedagogy design during the planning phase deal with how the projects will unfold. These speculations are in constant flux and interchanging as the correspondence and meetings with all the involved stakeholders happen and as new stakeholders get more deeply involved in the project by finalising their ideas for contributions. As theoretically explained, this phase is the backstage area of participatory performance pedagogy design, and it consists in the scope of “messy activities that occur before” the project is launched (Bødker et al., 2017). The contributions should be as thematic as possible and free as they can be not to deform the artists’ individual practices. The artists are not expected to do anything that they do not usually do; they are expected to enrich the project by their practise-based knowledge.

The final shapes of the projects are presented in real-time as the participants arrive and influence the space of the project. The interhuman connections—between the venue representatives and the artists, between the artists and between the artists and the children involved from the very first day until the project ends—co-create the framework of the performative actions. Some artists, exemplified by Kaspar Aus, arrived at the performative space and physically stayed for the entire project, interacting with the children and inviting them into their improvisations. Some artists very clearly identified when they would and would not be present, or

“on stage”, in the space. Both types of contributions were welcome and valued highly as this kind of variety of dynamics is at the core of the project. In other words, variations among the artists’ contributions were expected. The project was never the same during its implementation as it was during its design. There were, however, always expectations of variations. The local impact was observed on a daily basis by spectating the spontaneous actions within the project. Moreover, the longitudinal impact on the local community is impossible to track, as the connections with the participants are agreed upon to take place only during the project. So, the research question in this article can be answered only by utilising knowledge from the planning phases and the phases of the implementation of the two cases.

As soon as the collaborations are embodied in the site of the event, the author’s responsibility for the project takes the form of co-responsibility of all involved parts. Co-responsibility becomes the common ground of negotiations and shapings of the project, be it without funding (as in the case of 2019) or with extensive funding from institutions (as in 2020). Both projects involved very different target groups, though both were representative of the Kaunas community. The participants of the projects—in the present case, young people and children—can be described as knotworks or temporary connections that highly influence the project on-site. However, one participating child attended both years. Participants as knotworks are at the core of the project, and it unfolds in a particular, improvised way, depending on who is involved and how the involved parts interconnect.

The participatory performance pedagogy design in both of the case projects occurred through individual online communication between the author of this research and the involved artists. In 2019 an attempt to create a collaborative communication channel did not succeed, so the most effective way to communicate was to have individual discussions during the planning phases. Both years, the project had the primary goal of gathering professionals from Northern Europe who deal with environmental issues and art.

The primary goal was for knotworks within the project to become networks at a longitudinal scale. Such network-building is aimed at uniting professionals of similar fields of interest and by means of collaborations within one project to empower the field of work in further speculative development if the networks would last. Analysing from the perspective of the concept of front stage and backstage (Goffman, 1959), the article suggests that knotworks are part of the front stage, as the temporary project-based collaborations are the highlights of the project as it unfolds. The project is spectated from the actual beginning to the end, and all the turns, improvisations or spontaneous actions caused by various temporary connections become the active part of the project’s content, which is seen in real-time. The author gathered four long-term collaborators (Kaspar Aus,

PhD Candidate Rait Rosin, Tue Brisson Mosich, and Dr Adomas Danusevičius) with whom mutual projects had taken place during the last five years and the artists knew each other very well. Anyway, the majority of involved professionals were unfamiliar with each other and to the author.

Cooperative prototyping sessions that took place on-site (Bødker et al., 2017) can be seen as co-installing the performance space, when artists bring and introduce their artworks and art objects into the space, always happening on-site shortly prior to launching the projects. Prototyping here is seen as co-visioning and co-creating the final look of the space where the interactions happen as the participants arrive. These on-site cooperative prototyping sessions (Bødker et al., 2017) involved intensive discussion and feedback events with the possibility to learn each other's practices and see how these practices find their place within the project. These were the first in-person meetings between all involved artists upon their arrivals into the gallery. However, due to the pressure of the short time before the launch of the project, these meetings were often quite unorganised and short and were mostly aimed at finding the right locations (from the perspective of the artists and the author) for all the installation elements and ensuring that all technology worked. This spontaneity was the potential threshold where the involved artists could enter the networks and speculatively learn about future collaborators practices.

Interestingly, in the previous author's projects, such as *BiteVilnius* (BiteVilnius, 2020), some collaborations emerged immediately after the projects, and a few artists are still collaborating internationally on a longitudinal scale of more than five years. In the *Nomadic Radical Academy*, the phase of meeting and prototyping the space on-site often continued through ongoing informal discussions during the project on how different elements impact the interactions. For example, the artwork by Anders Werdelin left black spots on the children's bodies as they would try to touch it. These interactions by the children with the installation element ranged from unintended incidents to the purposeful creation of circles and ornaments on the bodies of the children.

The other dimension of the participatory performance pedagogy design aimed at interinstitutional knotworking and networking within preparations and negotiations regarding the fundamental outcome, especially in 2020, when the project was fully funded. As earlier theoretically explained, the design process unfolds by the front stage and backstage (Goffman, 1959), which is even more clear within the interorganizational connections. The messy, negotiation-based and conflict-prone process (Bødker et al., 2017) as the core of the participatory infrastructure started at the fundraising phase, especially in 2020, when this process involved two additional organisations (i.e. the exhibition venue and the Municipality and The Council for Culture). The applications needed to meet the guidelines of the funding open calls, and each of the applications reshaped the

project into those guidelines, which in the realisation phase of the project became the active projects' content parts.

Each of these organisations provided the material base for the project to happen, which, in cases of one-time project support, are defined as knotworks (Bødker et al., 2017). In the case of the collaboration with the Gallery Meno Parkas, it can be defined as a network (Bødker et al., 2017) due to the author's longitudinal collaboration with this venue. Each of the knotwork and network members has expectations of what impact the project should have and how intensive or passive the interconnections between the involved stakeholders should be. Active involvement, for example, could be a visit from the representative of the municipality during the project in 2020, as the municipality had local goals and explained the project to the local families whose children attended local schools. The representative of the municipality supervised the process in person.

The author of the project, using the provided material base, is expected to deliver a project that satisfies all expectations. During the documentation phase, an image of the past event is created, which captures the emotions and reactions shown through the interhuman communications of the real-time activities. The impact of the knotworks is captured and delivered as the image of the participatory performance pedagogy project targeted at the local community. Meanwhile, networks remain an invisible and immeasurable speculative aspect of the project's outcome. Speculatively, the messy process of performance design benefits network-building and deepens the possibilities (or impossibilities) for future collaborations between the involved stakeholders. The backstage is oriented towards activities and processes that tie the project together:

“Networks and knotworks provide a way to discuss the back stage activities and also parts of an infrastructure in which ideas, technologies, and organisational arrangements are developed and appropriated. However, to understand the significance of these constellations beyond their immediate settings, it is necessary to look at how processes and outcomes are extended over time.” (Bødker et al., 2017, p. 252)

In the case projects, the networks and knotworks within the process of the project's design and implementation (specifically in the conceptual framework of the backstage) provided an arena for empowering the project's author and venues. The autonomy in the case of *The Nomadic Radical Academy* in 2019 and 2020 is seen in the local embodiment of the project, and it has an immediate effect. This effect is due to front stage factors (the real-time experience of the project by all involved and the publicity of the project) as well as backstage factors (the experience of what works and what does not work within the project locally). The backstage factors might differ significantly depending on what location the project takes, and so the analysed processes are applicable primarily within the

same or similar local contexts. Relational agency (Bødker et al., 2017), as a concept uniting all involved stakeholders into collaborative processes, is applicable locally based on the front stage and backstage and can be utilised within the (speculative) next edition of the project.

Understanding the possible obstacles and opportunities of real-time actions (both in planning and implementation phases) might make the process easier over time. “Knotworks and networks describe the constellations that emerge through infrastructuring, [while] relational agency describes the stakeholders’ capacity to engage in these processes” (Bødker et al., 2017, p.252).

The relational agency across the vertical power relations was not in focus during the development and execution of the project, however it did become apparent that there were issues relating to this that were never addressed, which affected the project. Thus, future projects and research might give a higher priority to these types of agency and relations. It is essential to envision the perspectives of the project and enhance the motivation of the author and the art venue, as well as that of the involved professionals and organisations to practice, participate, and support participatory performance pedagogy processes within communities.

Conclusions

The study explored the impact of international knotworks and networks on a locally targeted participatory performance pedagogy project. In the performance design phase, the online communication processes with all involved professionals impacted the spontaneity of the site-specific involvement upon their arrival into the project venue. During this phase, the first physical meeting of the stakeholders occurred, which intertwined and shaped the project as it unfolded. The front stage of the project was the action (which was in constant flux) and is directly emerging from the knotworks involved in the project. The front stage entered the documentation material and became the image of the past performance, while the backstage of the project evolved into collaborations between the involved parts. The co-responsibility for the impact of the project at the local level and the responsibility of the author of the project for the outcome and collaborations of the involved stakeholders influenced the development of the project. Knotworks can be developed into networks by fostering ongoing communication and a potentially longitudinal vision of collaborations as a metaphorical weaving of the idea behind the project into future perspectives. The present research can be used by professionals working on projects that involve inviting international performance artists to take part in local site-specific projects.

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ARTIFICIAL INTELLIGENCE VS DESIGNER: THE IMPACT OF ARTIFICIAL INTELLIGENCE ON DESIGN PRACTICE

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Abstract. *Technological advances, including the use of possibilities offered by artificial intelligence (AI), have become an area of strategic importance and a key driver of economic development. AI today has been integrated into a variety of economies, the design industry is no exception: AI is being increasingly applied in the development of design products and services. However, as technological breakthroughs rapidly shift the borders between the work tasks performed by humans and those performed by machines and algorithms, global labor markets are undergoing major transformations. This raises the question: how are these changes affecting and will continue to affect designers' work in the future? What skill sets will be needed for designers to begin or continue working in the industry? The article aims to perform a meta-analysis, summarizing the research on the impact of AI on the designer's professional activity and test the capabilities and results of AI-based design solutions. Research methods – theoretical – research and analysis of literature and Internet resources; empirical – case study to analyze possibilities and results of AI-based design solutions.*

Keywords: *artificial intelligence, designer, future, case study.*

Introduction

Technological development has become an area of strategic importance and a key driver of economic development (European Commission, 2020, World Economic Forum, 2018).

According to the results of the global employers survey, provided by the World Economic Forum (2018; 2020), technological advances, including artificial intelligence, are set to dominate the period of 2018–2025 as drivers positively affecting business growth.

Recent theoretical developments have revealed that artificial intelligence (AI) influences business by creating competitive advantage, new opportunities, expanding the range of customers, connected devices that provide a constant flow of data on functionality, usage, production, and customer needs. These options can provide companies with a competitive advantage by creating results that

people can quickly interpret, predict, and use (Pandya, 2019). This a mature field that is now being spun out into commercial applications. AI today has been integrated into a variety of economic sectors, such as finance, national security, health care, transportation, and smart environment technologies. The design industry is no exception: AI is being increasingly applied in the development of design products and services.

However, there is the other side to the coin. The latest World Economic Forum (2020) data show that “by 2025, 85 million jobs may be displaced by a shift in the division of labor between humans and machines, while 97 million new roles may emerge that are more adapted to the new division of labor between humans, machines, and algorithms”. This is more widely used at the time of the COVID-19 pandemic. “Automation, in tandem with the COVID-19 recession, is creating a ‘double-disruption’ scenario for workers” (World Economic Forum (2020).

Not all designers today use AI-based programs, which allows to generate design solutions saving time. However, potential customers of designers have increasing opportunities to directly, without live contact, obtain them on AI-based sites.

This raises the question: how are these changes affecting and will continue to affect designers' work in the future? What skill sets will be needed for designers to begin or continue working in the industry?

The article aims to perform a meta-analysis to define future challenges for designers, design curriculum developers, and educators.

Research methods: theoretical – research and analysis of literature and Internet resources; empirical – case study to analyze possibilities and results of AI-based design solutions.

This research considers the field of the impact of Artificial Intelligence as the main subject of its study.

Opinions on the Prevalence of AI in the Work of Designers

Views on the “next normal” and future work of designers and architects are widely discussed in various media, websites, and blogs.

The central question is: will AI and robots replace creatives – designers and architects? Here are different opinions. The most concerned are professionals in design and related fields.

1. Architects and designers will be replaced by software applications.

Sebastian Errazuriz (2019) believes that ninety percent of architects will lose their jobs, if artificial intelligence takes over the design process, since machine learning will allow software applications to synthesize a large volume of projects

in a short time, customers will be able to define to an app their intensions, requirements, and budget and get a range of options in seconds.

S. Errazuriz (2019) considers that only 1%, maximum 5% of architects will survive, so a tiny elite will continue architecture. In this context he recommends designers and architects to become programmers.

2. Designers and architects will not be replaced by technologies in the near future.

In turn, results of a survey of graphic designers "Will" Graphic Designers "be replaced by AI & Robots?" (Will Robots Take My Job?, n.d.) show that there is a very little chance of this profession being replaced, however, the chance of automation in the next 2 decades could be 39%.

Analysis of data from a study on computerization by two Oxford professors show that there is only a 1.8% chance U.S. architects' jobs will be automated in the next decade or so (Lubell, 2018).

3. AI facilitates architects' and designers' workflows by analyzing large amounts of data in a short time and offering solution options.

Another group of authors (Ervin, 2019; Philips, n.d.; Tailor Brands, 2019; Andersen, 2019) – design thinkers and researchers (Verganti et al., 2020) – believe that AI will transform the design industry, yet these technological advances will not replace human designers. AI will mainly be related to optimization and speed. M. Philips (n.d.) claims that designers working with AI will be able to create designs faster and cheaper due to the increased speed and efficiency it offers.

Tailor Brands (2019) points out that designers will play a more complex and nuanced role, while artificial intelligence tools will facilitate the work of human designers by preserving tools rather than replacing them. Thus, human designers will be required to oversee the process and make the most important decisions. M. Andersen (2019) considers artificial intelligence as a possibility that will allow designers to integrate AI applications, such as machine learning, into their current practice.

This necessitates to define a new set of skills that are essential for designers to work in their specialties.

Extensive research on design issues in the age of artificial intelligence has been carried out by R. Verganti, L. Vendraminelli and M. Iansiti (Verganti et al., 2020).

The authors characterize the traditional design process as an intermittent activity that is performed irregularly, especially in cooperation with users; as a complex process in time and resources, resulting in projects. If the use of AI is limited with the automation of existing design tasks, the essence of design practice remains the same. However, the cases of Netflix and AirBnB show that the impact of AI profoundly changes the practice of design.

Using AI capabilities, problem-solving, usually performed by designers, is automated into learning loops that think in a radically different way than a designer. They operate without limitations of volume and speed, address complex problems through simple tasks, iterated exponentially (Verganti et al., 2020).

The authors (Verganti et al., 2020) conclude: AI does not undermine principles of design thinking. By removing limitations in scale, scope, and learning, it realizes the ultimate form of people-centeredness, with experiences that can be designed and improved for each person. AI may enhance creativity, by expanding the scope of the design space beyond product categories and industries.

Approaches to AI Solutions for Designers and Architects

As it is noted by the group of researchers (Lee et al., 2019), there are two AI development approaches: symbolic and neural.

Symbolic AI includes all programming methods and systems that use symbols, such as letters and numbers, to encode human knowledge, rule-based actions, and defined policies. It assumes that high-level representation symbols and combinations of symbols performing reasoning in a manner similar to human deductive reasoning (Lee et al., 2019). So, symbolic AI thinks like a human. Symbolic AI is the most well-known and widespread AI systems applied in manufacturing and production, design, process planning, production control, and diagnosis (Lee et al., 2019).

Neural AI or Connectionism relies on an artificial neural network (ANN) or an aggregate of machine learning algorithms enabling computers to learn from data. “Technically, can be classified into three areas: (1) supervised learning, which involves learning from correct answers (labeled data); (2) unsupervised learning, defined as finding knowledge or information when given some raw data (unlabeled data); and (3) reinforcement learning that entails how agents in an environment take action to maximize their rewards” (Lee et al., 2019). Machine learning approaches are suitable to solve more complex problems by learning like neurons in a human brain.

Parametric and generative designs are considered innovative approaches and the future of design. Both have a broad range of use, most importantly, they are applied in industrial and interior design and architecture. Each relies on advanced algorithms in the process offering speed and reliability (archistar.ai, n.d.).

Parametric design is an interactive process that allows creating designs based on the input of parameters, such as materials, site constraints, even environmental issues, to test options and to make changes in real time (Rahman, 2020; archistar.ai, n.d.). “Whether parametric algorithms use iteratively

some components in order to identify the best solution to a specific design intent within a design boundaries (parameters and rules), the process may be defined as Generative Design technique” (Monizza et al., 2017).

According to the explanation of the term, **generative design** is an iterative process that uses advanced algorithms to find the best solutions, which are based on the parameters provided by the designer. With the built-in AI, the software learns from every set of solutions (archistar.ai, n.d.). E. Souza (2020) characterizes generative design as a combination of parametric design and artificial intelligence together with the restrictions and data included by the designer.

Parametric and generative design techniques are more effective in decision-making processes, in case of information and relationships that have to be defined (Monizza et al., 2017).

Different authors (Reddy, 2020; Schumacher, 2020; AI and the Future of Design..., 2017) highlight ways how artificial intelligence can reshape architecture and design. V. Reddy (2020) characterizes Parametricism (*parametric design, aut.*) as “a hidden weapon that allows changing specific parameters to create various types of output designs and create such structures that would not have been imagined earlier”.

According to the author (Reddy, 2020), such a tool and process allows artificial intelligence to reduce human effort giving the best results possible by analyzing a large amount of data.

Artificial intelligence-driven parametric design allows designers to quickly and easily explore a huge number of alternative directions creating millions of design variations in a small amount of time. Thanks to these opportunities the productivity of most designers will increase dramatically (AI and the Future of Design..., 2017).

Parametric design is not related only to software but also to the results of using them – an architectural style.

Patrik Schumacher (2020) considers parametricism as architecture’s answer to contemporary, computationally empowered civilization. According to the author, parametricism is the only style that can adequately address the new societal tasks posed to architecture by the new social dynamics engendered by the information age. It is congenial to recent advances in structural and environmental engineering capacities based on computational analytics and optimization techniques.

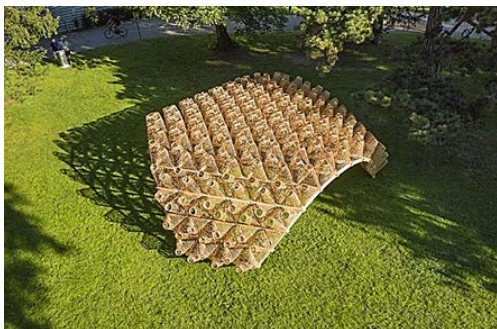
In this regard, V. Reddy (2020) opposes P. Schumacher (2020) considering such outline depicts parametric design not merely as a useful tool but as the enabler of an entirely new kind of architecture, a new aesthetic. The author (Reddy, 2020) believes that such formulations make parametricism more related

to taste than problem-solving. V. Reddy (2020) mentions another important possibility in using AI as a tool in research: analysis of data and results.

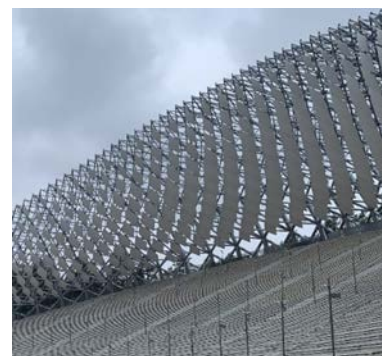
AI analyses the collected data in seconds and recommends different solutions. Decisions that are based on research and reliable data are important in the development of both design and architectural projects. There, as the specialists from the Autodesk development team point out (Smolker, 2020), generative techniques offer the ability to filter and select the solutions that suit the goal the best.

Designers and architects use computer programs (Revit, Grasshopper, Rhino, Finch, Dialux, Blender, etc.) which makes it possible to create a variety of shapes and simulations.

Many world's star architects, such as Zaha Hadid, Norman Foster, and others, as well as Latvian architects, have used software to design their buildings. For example, the Wicker Pavilion (DJA, architects: D. Jaunzems, & D. Sapega) is designed combining contemporary architecture and Latvian traditional craftsmanship (Fig. 1, 2) and the architecture of National Open-Air Stage in Mezaparks (Studio Mailitis Architects). This is the place where the Latvian Song Festival takes place. This stage is a symbol of the wisdom of life and the Latvian landscape (Fig. 3, 4).



*Figure 1, 2 Wicker Pavilion. Ancey Paysages landscape architecture festival.
DJA, architects: D. Jaunzems, & D. Sapega, 2020.
(<https://www.youtube.com/watch?v=otoP8puJzKY>)*



*Figure 3, 4 National Open-Air Stage, Mezaparks, Riga, Latvia.
Mailitis Architects, 2016. (Photo: Egils Dalmanis)*

There are designers and architects who do not limit themselves to the use of computer programs, they have also mastered programming. Michael Hansmeyer (2003-2019) is an architect and programmer who, inspired by cell division, explores the use of algorithms and computing to generate an architectural form.

Summarizing all the opinions, the authors can agree with Rob Girling (n.d.): – when humans and computers work together, they can accomplish amazing things that neither could do alone. However, questions of sense and purpose are becoming increasingly important.

Can Everyone be a Designer?

Software companies continue to offer an impressive range of AI-based graphic and interior design platforms that are available to everyone.

In addition to the theoretical research described in the previous section, a case study has been conducted. Without claiming to be experts in the field of AI, the authors analyze some available parametric design programs and platforms from the designers' position.

To assess whether the existing AI solutions for design development are competitive with the work of professional designers, the authors tested: 1 interior design site Planner 5D and 4 logo design sites: Designs.ai, Tailor Brands Studio, Design Iconic and Brand Crowd.

For comparison, the authors evaluated logos and design solutions of the AI designer Nikolay Ironov, which is based on neural AI.

Methodology

The interior design site Planner 5D was tested according to the criteria:

- a) Principles of design development;
- b) Choice of materials, colors, furniture, lighting fixtures and equipment;
- c) Opportunities to make changes.

Logo design sites was tested according to the following criteria:

- a) Comprehensibility and structure of the site;
- b) Design development criteria;
- c) Offered opportunities;
- d) Execution speed and volume of designs;
- e) Quality of results;
- f) Customer's ability to make adjustments.

Results

Evaluating the strengths and weaknesses of the considered AI platforms, it can be concluded:

1. Planer 5D is a home interior design application, which offers quite a few options: it allows to change the dimensions and geometry of the room, to add floors, to choose doors, windows, materials, furniture, light fixtures, etc. When testing the program, it appeared to be simple and considerably suitable for any user. The program allows to use templates, as well as to create an individual design, which calls into question the functionality and quality of non-professional solutions.
2. The structure of the service is almost identical on all logo design sites: possibility to define the industry; for some, to choose keywords and slogans; to choose a type of sign – only text or symbol and text; to choose a coloristic solution;
 - 2.1. Paid sites have good internet speeds and options;
 - 2.2. The number of options offered is significant – about 300 pages with more than 10 design solutions each;
 - 2.3. The program generates design options instantly;
 - 2.4. Programs do not generate symbols but choose them from the available range. They seem to be quite seen, sometimes illogical combinations of text and characters are formed;
 - 2.5. Customers have limited options to adjust the selected option – change the distances between letters, lines of text.
 - 2.6. Against the general background, AI designer Nikolay Ironov (n.d.), established by Art Lebedev Studio, stands out and seems different and quite well educated. If the examples analyzed above were clearly impersonal, then in this case we can talk about style and individuality, which makes each designer unique. Since Nikolay Ironov (NI) is based on neural AI (Kulinkovich, 2020), it indeed does not think like a human being, offering quite unusual and unconventional solutions (Fig. 5). Judging by the company's turnover, NI also surprises customers.

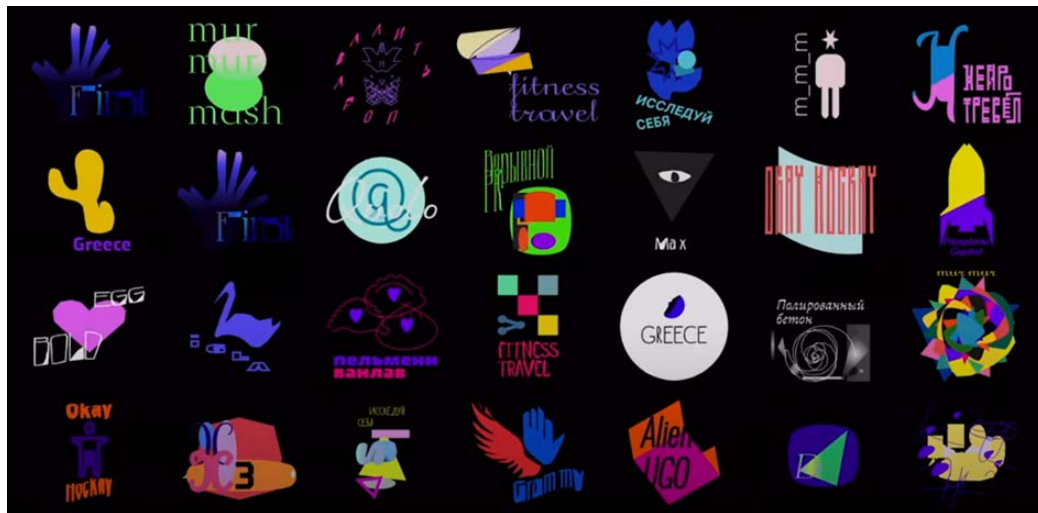


Figure 5 Logos (Nikolay Ironov, n.d.)

The analysis leads to the conclusion: although there are some positive examples, there is a possibility that the world will be flooded with design solutions of mediocre or questionable quality. There is a need for professional knowledge to assess the quality of the solution. This should not be considered critical in the case of individual housing, but in the field of corporate identity, the quality is essential.

Can everyone be a designer? It depends on the definition and understanding of design. However, it is clear that only a person with a professional education can develop solutions, including samples, to teach AI, that complies with the principles of “good design” (Rams, 1976), which have not been challenged to this day. It seems that another question is more appropriate in this context: does everyone need a good design?

Conclusions

1. The possibilities offered by technology allow optimizing the work process of designers, save time and costs.
2. The use of AI in the provision of design services change a business model: the product development does not require a human designers and managers: generation of design samples, cooperation with customers and selling take place simultaneously.
3. The new work model defines new work tasks for designers determining the need for new competencies to design the problem-solving loops that will develop the design solutions.
4. If previously managers were taught to think and act as designers, now designers will have to plan and manage processes as curators, innovation managers, or art directors. It brings design closer to management sciences.

5. AI will not completely replace human designers, because only the designer can define what is meaningful and important, determine when to continue the process and when to stop, approve or reject the solution.
6. The demand for designers with traditional design education will likely decrease in the future. This makes it necessary to consider changes in the design education process and content.

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POTENCIĀLAIS UN PIEEJAMAIS BALSS AUGSTUMA DIAPAZONS 6-12 GADUS VECĀM MEITENĒM

The Potential and Working Vocal Range of Girls Aged 6 to 12

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Abstract. Aim of this study is to determine the potential and working vocal range in the results of objective and subjective voice range evaluation in elementary school girls – solo singers. Theoretical part contains review of other authors' studies related to child's voice range from 6 to 12 years. Practical part of the study offered making of the phonetogram by using Voice Range Profile software (CSL 4500, Kay Pentax, USA) as an objective method for voice range evaluation. For subjective voice analysis, a voice range evaluation in form of vocal exercises was performed. It is understood that the objective voice evaluation reflects the potential of girls' voice range, while the subjective evaluation – current working voice range. Fourteen girls attending solo singing classes were part of this study (medium age: 9.14 years; SD: 1.79 years; age range: 6-12 years). Three study groups were formed: 6-8 year old girls (n = 5); 9-10 year old girls (n=5); 11-12 year old girls (n=4). In 6-8 year old girls, VRP was from sol# (204.31 Hz, SD: 26, 05) to do3 (1047.72, SD: 409.70), but in subjective voice range evaluation, it was from la (220.28 Hz, SD: 18.88) to fa² (775.90 Hz, SD: 70.64). In the group from 9-10 year old girls VRP range was from fa (171.25 Hz, SD: 16.03) to re#³ (1224.47 Hz, SD: 156.12), but current working voice range was from sol (208.79 Hz, SD: 24.90) to sol#² (842.20 Hz, SD: 132.80). In 11-12 years old girls objective VRP results were fa# (186.54 Hz, SD: 27.76) to re#³ (1277.61 Hz, SD: 80.09), while from sol (208.23 Hz, SD: 12.16) to si² (933.46 Hz, SD: 175.22) the work range was. In discussion part findings by other authors are compared to the objective and subjective voice range data acquired in this study. It is concluded that potential child's voice range in girls 6-12 years of age exceeds two octaves yet working range reaches up to two octaves.

Keywords: girls, vocal range, solo singing, pre-mutation, objective and subjective evaluation.

Ievads ***Introduction***

Gandrīz katrā Latvijas izglītības iestādē ir izveidots koris vai ansamblis, taču ne mazāk izplatīta ir solo dziedāšana, kur nepieciešams izcelt vokālista individualitāti, balss dotības un spēju uzstāties vienam plašas auditorijas priekšā.

Bērna balss attīstība notiek vienlaicīgi ar viņa emocionālo un fizisko attīstību. Īpaši straujas balss izmaiņas ir vērojamas pubertātes periodā, kurš meitenēm sākas aptuveni 10–12 gadu vecumā, taču ne mazāk nozīmīgs ir balss pirmsmutācijas periods, kad notiek strukturālas izmaiņas balsi veidojošos orgānos (Cartei, Cowles, Banerjee, & Reby, 2014; Fuchs et al., 2008; Hacki & Heitmüller, 1999; Pieper et al., 2020; Pribusiene, Uloza, & Kardisiene, 2011; Schutte & Seider, 1983; Siupsinskiene & Lycke, 2011; Trinīte, 2007; Wuyts et al., 2003). Šis periods atbilst sākumskolas vecumam, kad daudzi skolēni, it īpaši meitenes, paralēli obligāto izglītības programmu apguvei izvēlas padziļināti apgūt dziedāšanu.

Zināšanas par balss attīstības īpatnībām sākumskolas vecuma bērniem ļauj izvēlēties piemērotas darba metodes, lai apzināti un mērķtiecīgi attīstītu dziedāšanas prasmes. Dziedāšanas nodarbībās izmantotajiem metodiskajiem paņēmieniem ir jābūt ne tikai balstītiem uz zināšanām bērna fizioloģijā, bet arī inkrementālu attīstību veicinošiem.

Dziedāšanas prasmi raksturo balss diapazons, kas ir viens no sākumskolas skolēna muzikalitātes attīstības kritērijiem (Vilde, 2013). Atsaucoties uz Dž. Čepmenas teoriju, autores izvēlējās apskatīt meiteņu balss diapazonu divos aspektos. Balss diapazons kā skaņas, kuras cilvēks fizioloģiski var izpildīt un kura attīstību nosaka balss veidošanas mehānisma fizioloģiskā attīstība. Šī diapazona apzīmēšanai šī pētījuma kontekstā tika izmantots termins “potenciālais balss diapazons”. Otrs – “pieejamais balss diapazons” jeb vokālais darba diapazons, kura robežās tiek izpildīti vokālie vingrinājumi un kurus dziedātājs spēj izpildīt bez pārmērīgas piepūles un diskomforta balss aparātā, ievērojot dziedātājam piemērotu stāju un apzinātu elpas kontroli (Čepmena, 2006).

Vokālo vingrinājumu izvēle un balss diapazona fizioloģiskās iespējas ir savstarpēji saistīti lielumi. Vingrinājumi tiek diferencēti atbilstoši bērnu vecumam, tajā pašā laikā pētījumi apliecina, ka balss diapazona paplašināšanos ietekmē mērķtiecīgi atlasīti vokālie uzdevumi (Fuchs et al., 2008; Siupsinskiene & Lycke, 2011; Pribusiene et al., 2011). Lai arī norādes par bērnu balss diapazona īpatnībām dažādos vecumos ir atrodamas vairāku autoru darbos (Batņa, 2020; Davidova, Čuang, Rauduvaite, & Zavadska, 2017; Vilde, 2013), tomēr pētījumi, kuros būtu izziņāts sākumskolas vecuma meiteņu balss diapazons, Latvijā nav veikti. Pētījuma mērķis – izpētīt potenciālo un pieejamo balss diapazonu 6–12 gadus vecām meitenēm, kuras mācās solo dziedāšanu.

Teorētiskais apskats *Theoretical Review*

Bērnu balss uzbūve un darbība ir atšķirīga no pieaugušā cilvēka, tādēļ dziedāšanas pedagoģiskās pieejas ir nepieciešams balstīt pediatrijas jomā gūtajās atziņās (Trollinger, 2008). Balss attīstībā izšķir trīs periodus: priemutācijas (7–12 gadi), mutācijas (12–15 gadi) un pēmutācijas (15–22 gadi) periods. Meitenēm priemutācijas periods var ilgt līdz 11–13 gadiem (Cartei et al., 2014; Hacki & Heitmüller, 1999; Mackiewicz-Nartowicz, Sinkiewicz, & Bielecka, 2014). Atšķirībā no mutācijas perioda, priemutācijas periodā meiteņu un zēnu balss anatomiskā attīstība ir līdzīga (Pieper et al., 2020). No 3 līdz 14 gadu vecumam balsenes augšana notiek lēnām, nevienmērīgi un disproporcionali, salīdzinot ar plaušu, bronhu, trahejas, mutes un deguna dobuma attīstību (Davidova u.c., 2017). Līdz 10 gadu vecumam balss saišu garums zēniem un meitenēm ir vienāds, dzimumatšķirības balsenes attīstībā notiek pēc šī vecuma (Stemple, 2014). Meitenēm priemutācijas perioda iezīmes balss skanējumā parādās septītajā, astotajā dzīves gadā, kad pazeminās balss pamatfrekvence (F_0), īslaicīgi samazinās spēja runāt un dziedāt klusi. Desmit gadu vecumā var parādīties skaļas balss producēšanas grūtības (Hacki & Heitmüller, 1999). Priemutācijas perioda noslēguma posmam raksturīga diskoordinēta balss muskuļu darbība, kas balss skanējumā var izpausties kā pārēļa, ierobežots diapazons un grūtības dziedāt reģistru maiņu vietās. Skaņveides nodrošināšanai nepieciešama lielāka piepūle. Mutācijas periodā meitenēm balss saišu garums pieaug par trim līdz četriem milimetriem, kas izmaina diapazona attīstību par trešdaļu oktāvas uz leju un trīs līdz četriem toņiem balss reģistra augšdaļā (Sweet, 2015; Sweet, 2016).

Bērnu balss attīstības novērtēšanā var izmantot objektīvas un subjektīvas balss diapazona novērtēšanas metodes. Objektīvo datu iegūšana galvenokārt ir balstīta uz kvantitatīviem, pārbaudāmiem rezultātiem. Subjektīva darbības novērtēšana nozīmē augstāku rīcības brīvību un vērtējumu, kurus ne vienmēr var pārvērst kvantitatīvos mērījumos. Subjektīvs novērtējums atļauj izmantot izveidotos darbības rādītājus, pieļaujot iegūto datu elastīgu analizēšanu un iegūto datu korekcijas, atbilstoši specifiskiem pieņēmumiem (Bellavance, Landry, & Schiehl, 2013).

Pētījumos balss diapazona objektīvai novērtēšanai tiek izmantotas fonetogramma jeb balss diapazona kartes analīze (*Vocal Range Profile*, VRP), kuru pirmo reizi zinātniskajā literatūrā aprakstīja nīderlandiešu zinātnieks Pīters Helberts Damste (*Pieter Helbert Damsté*) (Damste, 1970). Fonetogramma ir balss maksimālā intensitātes diapazona (y-ass) attiecības pret maksimālo frekvenču diapazonu (x-ass) divu dimensiju grafisks attēlojums (Schutte & Seider, 1983). Fonetogramma atspoguļo indivīda fizioloģiskās balss robežas (Ma et al., 2007).

Fonetogrammas analīzes metode ir izmantojama bērnu balss un vokālās meistarības attīstības izpētē (Siupsinskiene & Lycke, 2011).

Balss diapazona pētījumi 6–11 gadu vecu meiteņu grupā, izmantojot fonetogrammas metodi, liecina, ka vidējā maksimālā frekvence (F_{\max}) bija 893 Hz, jeb la^2 bet minimālā frekvence (F_{\min}) bija 196 Hz, jeb sol , savukārt vidējais balss diapazons – 27,1 pustoņi. Tika atklāts, ka meiteņu vecums statistiski nozīmīgi ietekmē F_{\min} un pustoņu skaitu modālajā reģistrā, taču F_{\max} vērtība nav saistīta ar vecumu (Wuyts et al., 2003). Pētījumos tiek norādīts, ka dziedāšana mūzikas nodarbībās pozitīvi ietekmē objektīvus balss parametrus: pieaug balss frekvences un intensitātes diapazons, spējas apzināti variēt šos parametrus dziedāšanas un runas laikā (Fuchs et al., 2008; Siupsinskiene & Lycke, 2011; Pribuisiene et al., 2011). Salīdzinot bērnus, kuri papildus apgūst dziedāšanu, ar bērniem, kuri nedzied, fonetogrammas parametri skaņas augstuma ziņā atšķīrās no 3,9 līdz 5,5 pustoņiem diapazona augšējā daļā un par diviem pustoņiem diapazona apakšējā daļā (Siupsinskiene & Lycke, 2011). Līdzīgas tendences atklāja arī foniatre Rūta Pribušiene (*Rūta Pribušiēne*) – vidējais balss diapazons 6-13 gadus veciem bērniem, kuri nedzied, bija 21,9 pustoņi, kamēr dziedošajiem tie bija 25,5 pustoņi. Nedziedošo bērnu balss diapazons sniedzas no sol (195 Hz) līdz fa^2 (696,5 Hz), bet dziedošo bērnu balss diapazons tiecas no fa (174 Hz) līdz sol^2 (784 Hz) (Pribuisiene et al., 2011).

Praksē dziedātāju balss diapazonu nosaka ar vokālo vingrinājumu palīdzību, kuri šī pētījuma kontekstā tika izmantoti kā balss diapazona subjektīvā novērtēšanas metode. Balss iedziedāšanās vingrinājumi pedagogu un dziedātāju praksē ir būtiska sastāvdaļa. Dziedāšanai nepieciešamās prasmes var tikt attīstītas un nostiprinātas ar dažādu mācību uzdevumu un vingrinājumu palīdzību, regulāru treniņu rezultātā (Vilde, 2013). Visbiežāk vingrinājumi tiek izvēlēti subjektīvi, atsaucoties uz katra pedagoga individuālo pieredzi un zināšanām, taču tos apvieno līdzīga izpratne par kvalitatīvu skaņveidi un balss skanējuma estētiku (Lazoryszczak, 2020). Iedziedāšanās vingrinājumi var tikt papildināti ar dziedātājam piemērotas stājas sagatavošanu, elpas un balss atbrīvošanas vingrinājumiem. Iedziedāšanās vingrinājumi koordinē balss saišu darbību, paplašina diapazonu un samazināt traumu gūšanas iespējamību (Greenlee, 2006). Lai arī eksistē vokālo vingrinājumu krājumi un skolotāju pieredzes apraksti (Davidova u.c., 2017; Gailīte, 2005; Girdzijauskienē, Jankevičienē ir Rimkute-Jankuvienē, 2017), līdz šim ir salīdzinoši maz pētījumu, kuros šo vingrinājumu efekts tiek vērtēts, izmantojot kvantitatīvus mērījumus (O. Amir, N. Amir, & Michaeli, 2005; Elliot, Sundberg, & Gramming, 1995).

Mūzikas skolotāja un mūzikas mācības metodiķe Ilze Vilde kā vienu no muzikalitātes attīstības kritērijiem atzīst dziedāšanas prasmi, kuru raksturo balss diapazons. Pētniece atzīmē piecu pakāpju balss diapazona attīstības līmeņus, kur pirmajā līmenī tiek norādīts, ka bērna balss diapazons nav izveidojies un ir trīs vai

četrus pustoņu jeb tercās apjomā, bet piektajā līmenī jau tiek sasniegts plašs diapazons 16-24 pustoņu jeb pusotras līdz divu oktāvu apjomā (Vilde, 2013). Diriģente Liene Batņa, subjektīvi izvērtējot balss diapazonu, norāda, ka bērna balss diapazons ir no *si* (246,94 Hz) līdz *la*² (880 Hz) (Batņa, 2020), bet zinātniece Jeļena Davidova atzīmē, ka bērniem sešu līdz astoņu gadu vecumā balss diapazons var sākties no *la* (220 Hz) līdz *fa*² (698,46 Hz) (Davidova u.c., 2017).

Pedagoģiskajā praksē bieži sastopama problēma ir centieni jaunā dziedātāja diapazonā iekļaut skaņas augstumus, kuri teorētiski ir pieejami (potenciālais balss diapazons), bet praktiski vēl nav sasniedzami (pieejamais balss diapazons). Attīstoties bērna balss mehānismam, pakāpeniski palielinās potenciālais un pieejamais balss diapazons. Zināšanas par individuālām balss attīstības iespējām ļauj mērķtiecīgi paplašināt dziedātāja vokālo darba diapozonu, attīstot tehniku un meistarību.

Metodoloģija

Methods

Izvēlētais pētījuma dizains atbilda šķērsgriezuma tipa pētījumam, kurā tika novērtēts 6–12 gadu vecu meiteņu potenciālais un pieejamais balss diapazons. Dalībnieku atlase tika veidota pēc brīvprātības principa. Pētījums tika saskaņots ar mācību iestādēm un tika saņemta vecāku rakstiska piekrišana bērnu iesaistīšanai pētījumā.

Pētījumā piedalījās 14 meitenes, kuru vidējais vecums (M) bija 9,14 gadi, standartnovirze (SD) = 1,79, vecuma diapazons 6–12 gadi. Lielākajai daļai (n=12) jauno dziedātāju bija iepriekšēja solo dziedāšanas pieredze no pusgada līdz 2,5 gadiem pētījuma autores solo dziedāšanas klasē. Sešas meitenes nodarbības apmeklēja interešu izglītības programmā (viena nodarbība nedēļā), bet astoņas mācījās profesionālās ievirzes programmā (divas nodarbības nedēļā). Ņemot vērā vecuma kritēriju, tika izveidotas trīs pētījuma grupas: pirmā grupa (n = 5), M = 7,2, SD = 0,84; otrā grupa (n = 5), M = 9,4, SD = 0,55; trešā grupa (n=4), M = 11,25, SD = 0,5.

Balss diapazona objektīva novērtēšana tika veikta izmantojot standartizētas procedūras (Pieper et al., 2020; Pribusiene et al., 2011). Objektīvs balss diapazona novērtējums tika veikts 2020. gada oktobra vidū Liepājas Universitātes Balss un runas izpētes laboratorijā, izveidojot katra dalībnieka fonetogrammu. Balss paraugs tika ierakstīts, izmantojot datorizētu balss analīzes programmu (*Computerized Speech Lab, CSL 4500, Kay Pentax, USA*) un kalibrētu dinamisko *Shure* mikrofonu. Balss parauga ieraksts tika veikts dalībniecei stāvot pie mikroфона, kas atradās 15 cm no viņas lūpām. Respondentam tika lūgts stiepti izrunāt patskani /a/ viņam ērtā skaņas augstumā un skaļumā. Pēc tam tika lūgts atkārtot stieptu /a/ iespējami klusākā balsī, tad iespējami zemākā balsī. Lai iegūtu

balss augstuma diapazona apakšējās un augšējās robežas, tika lūgts veikt slīdošu skaņu pāreju (*glissando*) no iespējami zemākās skaņas līdz iespējami augstākajai. Pēc tam katrs respondents izpildīja iespējami augstāko un skaļāko toni, kam sekoja lejupejošs *glissando* no iespējami augstākās līdz iespējami zemākajai. Lai nostiprinātu balss diapazona līkni, slīdošās skaņu pārejas tika atkārtotas pēc nepieciešamības, jo visā balss diapazona garumā *glissando* ar vienu elpu bija grūti izpildāmas kā augšup, tā lejupejošā virzībā.

Balss augstuma diapazona subjektīvai novērtēšanai tika izmantoti iedziedāšanās vingrinājumi, kas tika papildināti ar stājas, elpas un balss atbrīvošanas elementiem. Vingrinājumu izpildes laiks aizņēma 10–20 minūtes, tos izpildot straujā tempā, lai nezaudētu koncentrēšanos, trenētu elpas muskuļu koordināciju un vokālo izturību. Katrs dalībnieks balss iesildīšanu sāka no viena un tā paša skaņu augstuma: pirmajā vingrinājumā – mi^l (329,63 Hz); otrajā vingrinājumā – sol^l (392,00 Hz); trešajā vingrinājumā – mi (329,63 Hz); ceturtajā vingrinājumā – sol^l (392,00 Hz); piektajā un sestajā vingrinājumā – do^l (261,63 Hz) (sk.1. tab.). Balss pieejamo toņu noteikšanai izmantotie vokālie vingrinājumi tika izkārtoti no vienkāršākajiem uz sarežģītākajiem, gan sekvences posma diapazonā, gan arī visa vingrinājuma diapazona robežās. Ja pirmais vokālais vingrinājums tika izpildīts vidus reģistrā, tad katra nākamā vingrinājuma diapazons bija par pustomi līdz trīs pustomiem lielāks gan diapazona augšējā, gan apakšējā izpildīto noteikta augstuma skaņu robežā. Piektā un sestā vokālā vingrinājuma diapazonu vērtības ir tikai par pustomi lielākas vai tādas pašas, tādēļ tiek uzskatītas par maksimālajām pieejamā balss diapazona iespējām, izpildot konkrētos iedziedāšanās vingrinājumus.

Vingrinājumi tika ierakstīti *Zoom Handy Recorder H1* diktofonā solo dziedāšanas nodarbību laikā. Paraugu ierakstīšanas laikā tika izvirzīti šādi kritēriji: balsij jāskan brīvi, skanīgi, droši un nepiespiesti; katrai vingrinājuma sekvencai jā sākas ar mīksto skaņšākumu (ataku); sejai jāizskatās estētiski skaisti; ķermenim jābūt brīvam, nav pieļaujams saspringums ekstremitātēs, kakla, žokļa, sejas muskulatūrā; elpai jāplūst brīvi; abdominālajai muskulatūrai izelpas laikā jābūt kontrolēti sasprindzinātai; vēderam izelpas laikā jāvirzās uz priekšu; dziedātājam vingrinājumu izpildes laikā jājūtas komfortabli.

1. tabula. *Vokālie vingrinājumi balss diapazona noteikšanai*
 Table 1 *Vocal Exercises for Determining of Voice Range*

Nr.	Funkcijas	Skaidrojums
1.	Vingrinājums uz viena toņa [mamma mi:ʎa te:tis stiprs]	Vingrinājumu sāk no <i>mi</i> ¹ (329,63 Hz). Ievēro staltu stāju. Paralēli veic kustības ar rokām, dziedot <i>Mamma mīla</i> , cieši sevi apskaujot, plaukstas uzliekot uz muguras lāpstiņām, bet uz <i>tētis stiprs</i> , rokas paceļ plecu augstumā uz sāniem un saliec elkoņus taisnā leņķī, plecus pavelk uz atpakaļ. Izpildīt līdz augšējām pārejas skaņām. 
2.	Lejupejošas mazas tercās apjoma vingrinājums [ku:kuʌ, ku:kuʌ dʒæguzi:te]	Vingrinājumu sāk no <i>sol</i> ¹ (783,99 Hz). Izpildīt toņa vai mazas tercās apjomā virs augšējām pārejas skaņām un pārsniegt toņa mazas tercās apjomā apakšējā diapazona daļā no sākuma sekvences. 
3.	Vokālais vingrinājums pakāpeniskā, lejupejošas lielas tercās apjomā [trakto:rs ru:ts, r].	Vingrinājums sākas no <i>mi</i> ¹ (329,63 Hz). Censties stiept diapazona robežas no pustoņa līdz lielas tercās diapazonam, plašāk nekā iepriekšējā vingrinājumā. 
4.	Vokālais vingrinājums, dziedot mažora trijskani lejup ar zilbi [ja:].	Dziedātājs rokas otro pirkstu noliek tieši zem apakšējās lūpas, uz zoda. Dziedot mutei jābūt plaši atvērtai A pozīcijā. 
5.	Vokālais vingrinājums mažora trijskaņa augšup un lejupejošās pasāžās [bella ro:za].	Dziedāt viegli, taču ar izteiktu dikciju. Katru patskani censties dziedāt ar mutes atvērumu A pozīcijā. Vingrinājuma diapazons tuvu maksimālajam darba diapazonam galvas un krūšu reģistrā. 
6.	Vokālais vingrinājums [ʃokola:de, karamele, ņam] diatoniskas mažora kvintas apjoma pasāžās.	Uzsvars uz dikciju, kā arī spēju strauji mainīt skaņas. Vingrinājums maksimālajā dziedātāja diapazonā, gan augšējā, gan apakšējā diapazonā. 

Pētījuma autore, klausoties (perceptuāli) analizēja iegūtos paraugus ar mērķi noteikt katra respondenta individuālo balss diapazonu. Analizējot iegūtos balss paraugus, tika izvirzīti sekojoši kritēriji: augstākajai un zemākajai skaņai ir jāskan brīvi un nepiespiesti, intonatīvi precīzi, bez pāreļpas vai saspringuma skaņējumā. Pētījumā tika analizēti 39 nodarbību laikā veikti vokālo vingrinājumu ieraksti. Katrā nodarbībā izpildīto vingrinājumu kopums tika pierakstīts nošu rakstā. Pēc tam katra skaņa tika pārvērsta hercu vienībās, izmantojot tabulu *The Audio*

Frequency Chart (<https://hexspa.com/audio-frequency/>) un ievietota MS Excell tabulā. Iegūtās vērtības tika pārvērstas mūzikas skaņu apzīmējumos ar Tomaša P. Šinaļska (Tomasz P. Szynalski) Szynalski (<https://www.szynalski.com/tone-generator/>) veidoto tiešsaistes toņu ģeneratoru (Szynalski, 2014). Datu statistiskā analīze tika veikta ar Microsoft Excell 2013 programmu, izmantojot aprakstošās statistikas metodes.

Rezultāti Results

Izveidoto fonetogrammu analīze norādīja, ka visas izlases (N = 14) vidējā F_{\min} bija 187,37 Hz, SD = 16,5 Hz, kas atbilda skaņai *fa*#, bet vidējā F_{\max} vērtība bija 1183,27 Hz, SD = 120,36, kas atbilda skaņai *re*³ (sk. 2. tab.). F_{\max} vislielākā vērtība bija vecākajā grupā, sasniedzot *re*##³ (1277,61 Hz), taču sešu līdz astoņu gadu grupā F_{\max} bija *do*³ (1047,72 Hz). F_{\min} viszemākā bija vidējā dalībnieku grupā, sasniedzot *fa* (171,25 Hz), bet vismazākā F_{\min} vērtība bija jaunākajā vecuma grupā *sol*# (204,31 Hz). Maksimālās frekvences standartnovirze bija lielāka nekā minimālās frekvences standartnovirze, kas liecināja, ka augstāku skaņu veidošana ir variatīvāka vienas vecuma apakšgrupas meitenēm. F_{\max} standartnovirzei bija tendence samazināties, pieaugot respondentu vecumam, kas varētu norādīt uz stabilākām augstāku skaņu veidošanas iemaņām meitenēm pieaugot.

2. tabula. Potenciālā balss diapazona vidējās minimālās un maksimālās frekvenču vērtības
Table 2 The average Minimum and Maximum Frequencies of the Potential Vocal Range

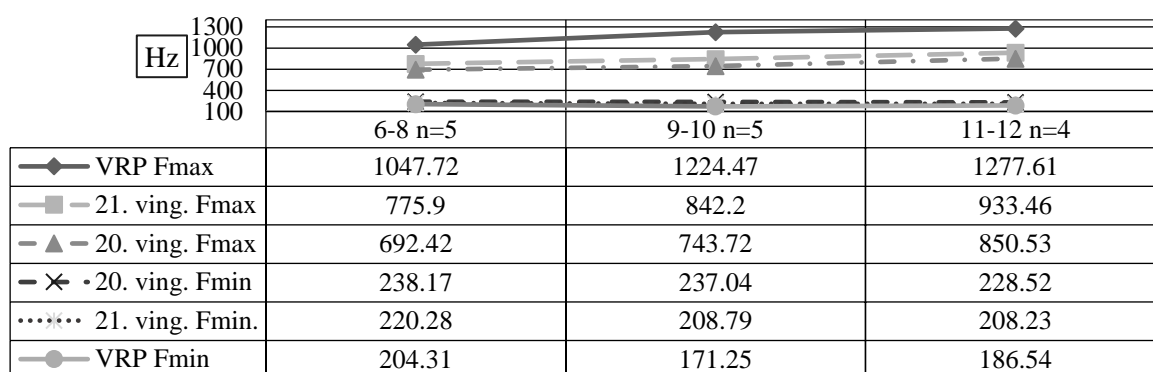
Grupa	I n = 5	II n = 5	III n = 4
Vecums (gadi)	6-8	9-10	11-12
F_{\min} (SD) (Hz)	204,31 (26,05)	171,25 (16,03)	186,54 (27,76)
Mūzikas skaņa F_{\min}	<i>sol</i> #	<i>fa</i>	<i>fa</i> #
F_{\max} (SD) (Hz)	1047,72 (409,70)	1224,47 (156,12)	1277,61 (80,09)
Mūzikas skaņa F_{\max}	<i>do</i> ³	<i>re</i> ## ³	<i>re</i> ## ³

Novērtēto vingrinājumu balss augstuma diapazona rādījumi atklāj, ka visas izlases pieejamā balss augstuma diapazona vidējās minimālās un maksimālās vērtības ar katru nākamo vingrinājumu paplašinās par pustomi līdz trīs pustomiem (sk. 3. tab.).

3. tabula. *Pieejamā balss diapazona vidējās minimālās un maksimālās frekvenču vērtības*
 Table 3 *The Average Minimum and Maximum Frequencies of the Working Vocal Range*

Nr.	Grupa	I n = 5	II n = 5	III n = 4
	Vecums (gadi)	6-8	9-10	11-12
1. vingr.	F _{min} (SD) (Hz)	292,33 (25,54)	281,88 (32,75)	274,28 (24,94)
	Mūzikas skaņa _{F_{min}}	re ¹	do# ¹	do# ¹
	F _{max} (SD) (Hz)	462,43 (31,36)	473,97 (27,77)	462,39 (25,73)
	Mūzikas skaņa _{F_{max}}	la# ¹	la# ¹	la# ¹
2. vingr.	F _{min} (SD) (Hz)	295,68 (19,33)	298,85 (15,38)	292,10 (20,77)
	Mūzikas skaņa _{F_{min}}	re ¹	re ¹	re ¹
	F _{max} (SD) (Hz)	561,95 (56,71)	582,44 (35,43)	594,10 (42,58)
	Mūzikas skaņa _{F_{max}}	do ²	re ²	re ²
3. vingr.	F _{min} (SD) (Hz)	249,68 (16,56)	240,36 (24,04)	249,37 (63,87)
	Mūzikas skaņa _{F_{min}}	si	si	si
	F _{max} (SD) (Hz)	593,15 (43,48)	645,44 (54,64)	631,18 (81,09)
	Mūzikas skaņa _{F_{max}}	re ²	mi ²	re# ²
4. vingr.	F _{min} (SD) (Hz)	238,27 (16,98)	234,51 (16,72)	251,57 (86,88)
	Mūzikas skaņa _{F_{min}}	la	la	si
	F _{max} (SD) (Hz)	643,15 (54,03)	622,23 (86,20)	772,05 (37,63)
	Mūzikas skaņa _{F_{max}}	mi ²	mi ²	sol ²
5. vingr.	F _{min} (SD) (Hz)	238,17 (22,51)	237,04 (15,83)	228,52 (27,12)
	Mūzikas skaņa _{F_{min}}	la#	la#	la#
	F _{max} (SD) (Hz)	692,42 (85,81)	743,72 (135,98)	850,53 (73,71)
	Mūzikas skaņa _{F_{max}}	fa ²	fa# ²	sol# ²
6. vingr.	F _{min} (SD) (Hz)	220,28 (18,88)	208,79 (24,90)	208,23 (12,16)
	Mūzikas skaņa _{F_{min}}	la	sol	sol
	F _{max} (SD) (Hz)	775,90 (70,64)	842,20 (132,80)	933,46 (175,22)
	Mūzikas skaņa _{F_{max}}	fa ²	sol# ²	si ²

Piektā un sestā vingrinājumā balss augstuma diapazoni ir ļoti līdzīgi, tādēļ tika uzskatīts, ka tie sasniedz iespējamo pieejamo balss diapazonu. Sestajā vingrinājumā F_{min} vidējā vērtība izlasē (N = 14) bija sol (212,74 Hz, SD = 18,05 Hz), bet F_{max} vidējā vērtība bija (837,45 Hz, SD = 95,04 Hz) jeb sol#². Attiecības starp potenciālo un pieejamo balss diapazonu katrā vecuma apakšgrupā ir atspoguļotas 1. attēlā.



1.attēls. *Potenciālais un pieejamais balss augstuma diapazons apakšgrupās*
Figure 1 *Potential and Available Pitch Range in Subgroups*

Visplašākais balss augstuma diapazons bija novērojams vecākajā grupā no *sol* (208,23 Hz) līdz *si*² (933,46 Hz). Pieejamā balss augstuma diapazona maksimālās frekvences standartnovirze piektajā un sestajā vingrinājumā visās vecuma grupās bija lielāka nekā minimālās frekvences rādījumos, kas liecina, ka augstu skaņu veidošanā individuālās atšķirības ir vairāk izteiktas nekā zemu skaņu dziedāšanā. Objektīvā novērtējumā iegūtās balss augstuma minimālās un maksimālās vērtības norāda uz iespējamo balss potenciālo diapazonu 6–12 gadus vecām meitenēm. Balss augstuma zemākās un augstākās vērtības, kuras tika iegūtas ar vokālo vingrinājumu palīdzību, iezīmē respondentiem pieejamo jeb darba balss diapazonu.

Diskusija Discussion

Pētījuma rezultāti norādīja, ka 6–12 gadus vecām meitenēm, kuras regulāri apmeklē dziedāšanas nodarbības potenciālais balss diapazons ir plašāks nekā pieejamais jeb darba balss diapazons. Zināmā mērā tas ir izskaidrojams ar pētījuma metodoloģiju. Veidojot fonetogrammu, respondenti tika lūgti veidot zemāko un augstāko iespējamo skaņu, kas sasniedza viņu fizioloģisko spēju minimālās un maksimālās robežas. Savukārt subjektīvā pārbaudē izmantotie vingrinājumi atspoguļoja ierasto, mācību stundās “atstrādāto” balss veidošanas modeli, kur zemākā un augstākā skaņa tika veidota nepiespiesti un brīvi, kā arī vingrinājumi tika izpildīti apzināti, vienlaikus pievēršot uzmanību elpas kontrolei, precīzai intonācijai, dikcijai, skaņas fokusēšanai un citiem elementiem.

Potenciālā un pieejamā balss augstuma diapazona maksimālās vērtības līkne norāda uz pieaugošu tendenci balss diapazonam paplašināties, pieaugot vecumam. Šis novērojums ir saskaņā ar T. Hacki un S. Heitmūlera pētījumu (Hacki & Heitmüller, 1999). Rūta Pribuišiene arī norāda uz pakāpenisku balss

diapazona paplašināšanos (Pribuisiene et al., 2011). Šajā pētījums neapstiprināja (Wyuts et al., 2007) pētījuma atziņu, ka vecums neietekmē F_{\max} izmaiņas meitenēm vecumā no 6 līdz 11 gadiem. Iespējams, ka šī nesakritība ir skaidrojama ar atšķirīgu pieeju datu statistiskajā analizē.

Lennarts Heinrihs Piepers (*Lennart Heinrich Pieper*) norāda, ka potenciālais diapazons paplašinās par vienu pustomi mācību gadā abos diapazona virzienos (Pieper et al., 2020). Līdzīga tendence tika atklāta arī šajā pētījumā starp izlases grupām 6–12 gadus veciem bērniem, kuri apmeklēja solo dziedāšanas nodarbības.

Pētījumā iegūtās potenciālā balss augstuma diapazona minimālās balss frekvences vērtības bija saskaņā ar citu pētījumu rezultātiem, taču maksimālās frekvences vērtības pārsniedza citu autoru iegūtās pat par pieciem pustomiem – jaunākajā grupā sasniedzot do^3 (1047,72 Hz), bet vidējā un vecākā grupā sasniedzot $re\#^3$ (1277,61 Hz) (Hacki & Heitmüller, 1999; Pieper et al., 2020; Pribuisiene et al., 2011; Siupsinskiene & Lycke, 2011; Wuyts et al., 2003). Šī atšķirība būtu skaidrojama ar to, ka šajā pētījumā piedalījās meitenes, kuras apmeklēja solo dziedāšanas nodarbības, kamēr citos pētījumos bērni pastiprināti apmeklēja kora vai grupu dziedāšanas nodarbības.

Salīdzinot subjektīvi novērtēto bērna balss augstuma diapazonu piektajā un sestajā vokālā vingrinājumā kopējā izlasē F_{\min} tiecas no la (220,28 Hz) līdz sol (208,79 Hz). Šīs vērtības ir tuvas gan pētījumā iegūtajiem objektīvajiem datiem, gan salīdzinot ar citu autoru pētījumiem. Darba diapazona F_{\max} bija no fa^2 (692,42 Hz) līdz si^2 (933,46 Hz). Uz līdzīgu balss augstuma diapazonu norāda arī Liene Batņa (Batņa, 2020) un Jeļena Davidova (Davidova u.c., 2017). Ilze Vilde, analizējot sākumskolas skolēna dziedāšanas prasmes, atzīst, ka pēc piecu semestru mūzikas nodarbībām (175 mūzikas stundas) lielākajai daļai bērnu balss diapazons ir līdz 24 pustomiem jeb divām oktāvām. Tomēr tiek piebilsts, ka pirmo līdz piekto klašu meiteņu balss ieteicamais diapazons ir no do^1 (261,63 Hz) līdz fa^2 (698,46 Hz) (Vilde, 2013).

Novērtējot meiteņu balss augstuma potenciālo diapazonu, var secināt, ka tas pārsniedz divas oktāvas un sākas no mazās oktāvas beigu skaņām līdz trešās oktāvas sākuma skaņām. Sestā vokālā vingrinājuma laikā demonstrētais pieejamais balss augstuma diapazons norāda, ka zemākās skaņas ir par pustomi vai toni augstākas nekā potenciālā diapazona F_{\min} . Salīdzinot potenciālā un pieejamā balss augstuma diapazona datus augšējā reģistrā, var novērot, ka atšķirība ir kvintas diapazonā jaunākā grupā (fa^2 / do^3) un vidējā grupā ($sol\#^2 / re\#^3$), bet lielās tercās apjomā vecākajai grupā (si^2 / re^3).

Dziedāšanas skolotājiem ir būtiski apzināt jaunā dziedātāja vokālā diapazona potenciālās spējas katrā vecumposmā, lai varētu izvērtēt fizioloģisko attīstību nākotnē, kā arī attīstīt darba diapazonu tā, lai uzdevumi būtu samērīgi tā brīža balss spējām un veicinātu dziedāšanas prasmju meistarības pozitīvu attīstību. Meiteņu balss ir jutīgs instruments. Tā pārpūlēšana var novest pie diskomforta,

kas var radīt nepatiku pret dziedāšanu, kā arī veicināt balss traucējumu attīstību. Tomēr pedagogam ir jāņem vērā, ka arī pārāk vienkārši uzdevumi neveicina dziedāšanas prasmju attīstību.

Secinājumi *Conclusions*

Izvērtējot pētījumā iesaistīto meiteņu balss diapazonu visās vecuma grupās, nākas secināt, ka tā potenciālās iespējas pārsniedz divas oktāvas, taču vingrinājumu darba diapazons ir divu oktāvu robežās.

Salīdzinot ar citu autoru darbiem par bērnu balss diapazonu, tika secināts, ka meitenēm, kuras apmeklē solo dziedāšanas nodarbības potenciālā diapazona augšējā robeža var būt pat par pieciem pustoņiem augstāka nekā bērniem, kuri apmeklē kora vai grupu dziedāšanas nodarbības.

Domājot par balss attīstības veicināšanu sākumskolas vecuma bērniem, kuri pastiprināti apgūst dziedāšanu, būtu ieteicams, uzsākot nodarbības, noteikt potenciālo balss diapazonu, lai labāk izprastu balss sākotnējās iespējas. Pētījuma rezultāti norāda, ka objektīvās un subjektīvās balss diapazona novērtēšanas metodes ir izmantojamas, lai sekotu balss attīstībai dinamikā. Balss diapazona regulāra novērtēšana ļauj radoši mainīt vokālās metodikas paņēmienus mācību procesā, lai mērķtiecīgi sasniegtu vislabāko rezultātu.

Summary

This is a cross-sectional study which examines the objectively assessed potential voice range of girls-solo singers, as well as compares it with the subjectively assessed working vocal range during vocal exercises in the pre-mutation stage of voice mechanism development.

It is necessary to recognize the girls' potential and working vocal range when teaching new singers in order to facilitate their successful and healthy development. Work with children in the primary school period provides them with the first basic skills, which significantly influence the strengthening of conscious voice control skills and the incremental direction of development.

The potential vocal range of children is the maximal phonation capability in the particular stage of development. In most cases it exceeds two octaves. Children use it unconsciously when playing, communicating, interpreting their thoughts or emotional state. The working vocal range is a set of pitches that is used for conscious acquisition of singing skills. It is narrower than the potential range and falls within it.

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MODES PREČU TIRDZNICĪBA TIEŠSAISTĒ

Online Sale of Fashion Goods

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Abstract. *The main channel for the distribution of retail goods is gradually becoming the Internet. It is also a binding distribution channel for the sale of fashion goods. It allows the retailer to take opportunity not only to post photos, video and audio material showcasing their latest collections, but also to sell the goods directly to the consumer through a website. In Latvia, the purchase of goods in the Internet is growing very fast, especially during the Covid - 19 restrictions, when the purchase of goods in stores is restricted. Throughout Europe and especially in Latvia the crisis caused by Covid-19 has led to the questions, such as - what to do now, what should change and what decisions should be made by fashion retailers so that employees and buyers are not so vulnerable in such unpredictable force majeure situations? According to data from the Interactive Media Retail Group, for example, the UK's online retail turnover increased by 42% in September 2020, by 35.7% in October and by 39% in November compared to the previous year. The aim of this article is to analyze researches about online fashion retailers conducted by US and British researchers and the results of surveys among Chinese and Latvian students. The questions included in the researches and surveys are: Who sells fashion items online? Who helps to create a good fashion website? How do fashion retailers design websites? Who buys online? Conclusions and proposals have been made for retail web developers in Latvia.*

Keywords: *fashion goods, online retail.*

Ievads

Introduction

Par mazumtirdzniecības izplatīšanas galveno kanālu pamazām kļūst internets. Tas ir arī saistošs sadales kanāls, lai realizētu modes preces, jo ļauj mazumtirgotājam izmantot lielisku iespēju izvietot ne tikai fotogrāfijas, video un audio materiālus, kas demonstrē viņu pēdējās kolekcijas, bet arī pārdot preces tieši patērētājam ar tīmekļa vietnes palīdzību. Pārdomas par apģērbu realizācijas plusiem un mīnusiem tiešsaistes režīmā turpinās, bet tai pašā laikā apģērbu un apavu realizācija internetā nepārtraukti pieaug. *Interactive Media in Retail Group* (IMRG, 2020) uzskata, ka sākot ar 2000. gadu ienākumi, realizējot preces internetā, ik gadu pieaug par 25-30%. Bet 2020. g., piemēram, Lielbritānijas tiešsaistes mazumtirdzniecības apgrozījums septembrī ir

palielinājies par 42%, oktobrī par 35,7% un novembrī ir par 39% lielāks salīdzinājumā ar iepriekšējo gadu. Šo tendenci apstiprina arī eBay: katru 7 sekundi viņu vietnē tiek pārdota kāda prece, bet modes industrija, kas ir 9% no visas interneta mazumtirdzniecības valstī, tiek uzskatīta par pašu ātrāk augošo elektroniskās tirdzniecības nozari Lielbritānijā. Latvijā preču iegāde internetā pieaug ļoti strauji, īpaši Covid – 19 ierobežojumu laikā, kad preču iegāde tiek ierobežota, bet vēlme svētkus sagaidīt nevis pidžamā, kā rāda reklāmā, bet gan skaistā tērpā, paliek. Ja Lielbritānijā priecājas par elektroniskās tirdzniecības pieaugumu, jo tas pozitīvi ietekmē ekonomiku, tad Latvijas situācija nedaudz atšķiras, jo mēs preču lielāko daļu iegādājamies ārvalstu tīmekļa vietnēs, tātad uzlabojam citu valstu nevis Latvijas ekonomiku. Modes apģērbu tirgotāji Latvijā novembrī satraucās, ka, piemēram, mēneša laikā nav nopirkta neviena kleita, jo nav jau kultūras un citu pasākumu, kuros tās parādīt. Interesējās par dažādām darbības stratēģijām, par jaunajiem modes dizaineriem, to apmācības uzlabošanu, bet pārdošanu internetā uztvēra kā pārāk sarežģītu vai uzņēmumam finansiāli nedrošu, lielās ārzemju konkurences dēļ. Realizācijai internetā ir savi plusi un mīnusi, un tās ir pārdomas, kurām ir jāpievērš pastiprināta analīze.

Lielākā daļa pētījumu analizē pircēju uzvedību t.sk. klientu, kas izvēlas iepirkties internetā, raksturīgās īpašības un stimulus, kas veido vēlmi pirkt drēbes internetā. Kā arī analizē tos klientus, kas iepērkas modes veikalos centrālajā ielā, un, kas izmanto katalogus vai internetu. Savukārt, citi pievēršas dizaina un tīmekļa vietņu kvalitātes analīzei un kā to vērtē patērētāji. Rakstā netiks analizēti Covid 19 ierobežojumu iespaidā Latvijā steigā veidotie interneta veikali un to piedāvājums.

Darba mērķis – apkopot un analizēt modes preču mazumtirdzniecības tiešsaistes pētījumus, ko veikuši ASV un Lielbritānijas pētnieki, un noteikt faktorus, kas ietekmē patērētāju pirkumus tiešsaistē, salīdzinot aptauju rezultātus Ķīnas, Indijas un Latvijas studentu vidū.

Metodoloģija *Methodology*

Pētījumam ir gan izzinošs, gan salīdzinošs raksturs. Veikta salīdzinošā analīze par izmaiņām patērētāju uztverē un vēlmēs, iegādājoties preces tīmekļa vietnēs pēdējo 10 gadu laikā. Periodu noteica pieejamā literatūra Covid19 ierobežojumu laikā, kad var izmantot tikai personīgo bibliotēku un interneta resursus. Aptauja Latvijā veikta galvenokārt Liepājas universitātes bakalauru un maģistru studentu vidū, kuriem rudens semestrī vadīju tiešsaistes nodarbības, kā arī LU maģistru studentiem. Aptaujas jautājumi Latvijā studentiem tika veidoti, pamatojoties uz literatūrā analizētajām situācijām, un ietvēra jautājumus par labu modes tīmekļa vietni no pircēju skatu punkta, par iepirkšanās motīviem,

plusiem un mīnusiem, kā arī riskiem iepērkoties internetā. Jautājumiem izmantota Likerta skala, kur 1- pilnīgi nepiekrītu un 6 –pilnīgi piekrītu. Notika fokusa grupas tiešsaistes diskusija.

Pētījuma rezultāti **Research Results**

Kas tirgo modes preces internetā? E. Jangs (Jang, 2004), analizējot 36 tīmekļa vietnes apgalvo, ka modes preču mazumtirgotāji, kas realizē preces internetā, atbilst vienai no četrām kategorijām:

- Virtuālie elektroniskie mazumtirgotāji;
- Tradicionālie mazumtirgotāji;
- Kompānijas, kas tirgo preces pēc katalogiem, bet lai paplašinātu savu darbību izmanto arī tiešsaistes pārdošanas;
- Daudzkanālu tirdzniecības kompānijas, kas preces realizē veikalos, ar katalogu starpniecību un internetā.

Savukārt R. Marsiņiaks (Marciniak, 2004), kas izvērtējis 990 modes preču mazumtirgotājus, kas darbojas Lielbritānijā, piedāvā alternatīvu elektronisko mazumtirgotāju klasifikāciju, kas saistīta ar fokusēšanos uz precī un tirgus pozicionēšanu. Tā ietver tādas kategorijas kā:

- Mazumtirgotāji ar šauru preču specializāciju vai nišas mazumtirgotāji (piemēram, apģērbi grūtniecēm);
- Mazumtirgotāji- dizaineri (piemēram, *Paul Smith*);
- Jaukta sortimenta preču mazumtirgotāji, kas pārdod modes preces (piemēram, *House of Fraser*);
- Mazumtirgotāji, kas realizē dažāda sortimenta modernu produkciju (piemēram *Diesel*).

Aptauja, kurā piedalījās 303 Ķīnas koledžas studenti (Kim, 2004), Indijas (Shanthi & Kanniah, 2015) un 126 Latvijas augstskolu studenti, kā arī pētījumi liecina, ka vislabāk pārstāvēti tie mazumtirgotāji, kas piedāvā šauru preču sortimentu. Viņiem daudz vienkāršāk nodrošināt preču apgrozījumu savās tīmekļa vietnēs. Piemēram, ievadot terminu “slēpošanas apģērbs” meklēšanas sistēma uzreiz piedāvā mazumtirdzniecības uzņēmumu sarakstu, kas piedāvā virsdrēbes. Savukārt uzņēmumi, kam ir atpazīstams zīmols, neizmanto interneta iespējas. Vienīgi *augstās modes* mazumtirgotāji, kas piedāvā jauktu preču sortimentu ar katalogu palīdzību veic arī darījumus internetā.

Pretrunīgs viedoklis ir par dizaineru iesaisti interneta izmantošanā savu modeļu realizācijā. Vieni uzskata, ka tas diez vai būs iespējams, jo:

- Viņi varētu censties aizsargāt savu imidžu, jo ieiešana tik plašā tirgū padarīs to mazāk izteiksmīgu;

- Ņemot vērā, ka dizaineri jau strādā pasaules tirgū, viņiem var nebūt vēlme un resursi, lai nodarbotos ar elektroniskām starptautiskām operācijām;
- Viņi var uzskatīt, ka augstu klientu apkalpošanas kultūru, kas saistīta ar dārgu modes preču pārdošanu, ir grūti nodrošināt tiešsaistes režīmā.

Savukārt citi piemin kompānijas, kas veiksmīgi realizē dizaineru apģērbus internetā. Šādi mazumtirgotāji pievērš uzmanību žurnālos reklamētajiem dizaineru apģērbiem, kurus nav iespējams iegādāties veikalos, jo tos uzskata par riskantiem. Tā būtu iespēja arī Latvijas dizaineriem, kuru modeļus grūti atrast veikalos. Arī risks tos realizēt speciālā veikalā ir pierādījies. Vismaz vairāki tādi veikali Rīgā nav izturējuši konkurenci pēdējo pāris gadu laikā.

Ir bijuši mēģinājumi apvienot neatkarīgos modes preču mazumtirgotājus, lai kopīgiem spēkiem izveidotu interneta vietni. Bet līdzekļu trūkuma dēļ projektu nerealizēja.

Nākošā problēma, kas apskatīta pētījumos un aptaujā, bija - **kas palīdz izveidot labu modes tīmekļa vietni?** Iesaka izmantot metodes, kas ļauj noteikt šādus aspektus:

- Kā patērētāji uztver sistēmas, kas piedāvā pakalpojumu tiešsaistes režīmā;
- Informācijas un organizēšanas līmenis, kas saistīts ar informācijas apjomu, ko piedāvā klientam, lai izpildītu vēlamo uzdevumu;
- Vietnes ārējais noformējums, kas saistīts ar vizuālo pievilcību, navigācijas vienkāršuma pakāpi un to pārvaldību (Chen, 1999).
- Savukārt pētnieks N. Tens (Then, 1999) par būtiskiem uzskata trīs vizuālos aspektus veiksmīgai tīmekļa vietnei apģērbu pircējiem:
- Preču tiešsaistes attēls, kas visprecīzāk atbilst reālam produktam;
- Analogisku izstrādājumu demonstrēšana;
- Iespēja apskatīt precīzi dažādos rakursos (vēlams trīs dimensijās).

Bet aptaujā Latvijas studenti apstiprināja pētnieku izvirzītos kritērijus un atzīmēja vēl šādus aspektus: iespēja veikt elektroniskos darījumus; atbildes laiku; vieglu pieejamību un elastību; pārdevēju attieksmi.

Jāatzīmē, ka Latvijā valdība pieņēmusi lēmumu par stingrākiem noteikumiem interneta pirkumiem, kas arī var kļūt par papildu aspektu.

Un, kas raksturīgi aptaujās, ka ne tikai vizuālie un estētiskie aspekti, kā arī izklaidējošas opcijas ir būtiskas, izvēloties tīmekļa vietnes. Daudzi būtiskāk novērtē transakcijas izmaksas, ieskaitot kredītkartes aizsardzību, īsu piegādes laiku, slepenības nodrošinājumu, naudas atgriešanas garantijas. Atzīmē arī pietiekami ērtu preču atgriešanas sistēmu. Atsevišķi respondenti uzsvēra, ka Latvijas pasts netiek galā ar lielo preču pieplūdi un jāstāv lielā rindā svētku laikā. Tas saistīts ar ārzemju piegādēm, kas paredz sūtījumus uz norādīto adresi.

Indijā Madrasas Universitātes un Madrasas Kristiešu koledžas studenti pērk modes preces tiešsaistē, jo tās ir lētākas salīdzinājumā ar tirgus cenu un arī ar dažādām atlaidēm un speciāliem piedāvājumiem. Pētījums atklāj, ka produktu cenai ir vislielākā ietekme uz pirkumu tiešsaistē. Otrs visvairāk ietekmējošais faktors ir produktu drošība, trešais - garantijas un galvojumi, kam seko piegādes laiks, uzņēmuma reputācija, informācijas privātums un interesants preču apraksts (Shanthi & Kannaiah, 2015).

Pircēji, kas izmanto internetu apģērbu iegādei, savu izvēli lēmuma pieņemšanai izdara, izmantojot divu dimensiju fotogrāfijas un tabulu ar izmēriem. Tomēr modes industrijā jārisina vēl citas problēmas, kā piemēram, krāsas, auduma kvalitāte un modeļa stils. ASV, piemēram, ir izstrādāta tehnoloģija “mans virtuālais modelis”. Šajā modelī var ievadīt individuālo informāciju par augumu, svaru un virtuāli uzlaikot izvēlēto modeli. Automātiski tiek piedāvāti atbilstoši aksesuāri.

1.tabula. Tiešsaistes patērētāju pirkumu ietekmes faktori un to svarīgums
Table 1 Factors Influencing Online Consumer Purchases and Their Importance

Faktori, kas ietekmē patērētāju pirkumu tiešsaistē	Ķīna 2004	Indija 2015	Latvija 2020
Interesants produkta apraksts, informācija	2	8	12
Analoģisku izstrādājumu demonstrēšana	4		8
Iespēja apskatīt precī daudzos rakursos (vēlams trīs dimensijās)	5		7
Iespēja veikt elektroniskos darījumus	9		11
Atbildes, piegādes laiku		5	3
Vieglu pieejamību un elastību	8		6
Pārdevēju attieksmi			10
Uzņēmuma reputācija	1	6	
Garantijas un galvojums	6	4	5
Informācijas konfidencialitāte		7	
Drošība	7	3	9
Tīmekļa vietnes ārējais noformējums	3		
Prece		1	1
Preces cena		2	2
Transakcijas izmaksas, ieskaitot kredītkartes aizsardzību			4

Neskatoties uz to, ka pētījumi ir veikti dažādos laika periodos, atsevišķi faktori ir nemainīgi, atšķirīgs ir tikai to svarīgums. Tie ir – informācija par precī, preču un naudas atgriešanas garantijas, drošība. Indijas un Latvijas studenti ir

vienoti jautājumos, ka pats svarīgākais lēmumu pieņemšanā ir daudz zemākas cenas nekā vietējos veikalos, oriģinālākas preces, kas nav pieejamas vietējā tirgū.

Latvijas studentiem būtiskas ir transakcijas izmaksas un viņi uzsver arī pārdevēju iejūtīgo attieksmi, regulāri noskaidrojot saņemto pakalpojumu kvalitāti un stingri uzraugot pārdevēju piedāvāto preci. Līdz ar to, veidojot labu modes tīmekļa vietni, jā rūpējas par ievietoto informāciju un preces attēlu, garantijām un visa veida drošību, kas ir nemainīgi faktori, kā arī piedāvāto preču klāstu un to cenām. Pēdējā desmitgadē dramatiskas izmaiņas ir notikušas tikai patērētāju iepirkšanās veidā. Lai gan patērētāji turpina iepirkties veikalā, viņi jūtas ļoti ērti arī iepērkoties tiešsaistē. Lēmumus var viegli pieņemt mājās, aplūkojot dažādas izvēles, un cenas var viegli salīdzināt ar konkurenta produktiem.

2. tabula. *Lēmums iegādāties modes preces tīmekļa vietnē (aprakstošā statistika)*
(autore pēc Shanthi&Kannaiah, 2015)
Table 2 *Decision to Purchase Online (Descriptive Statistics)*
(author after Shanthi&Kannaiah, 2015)

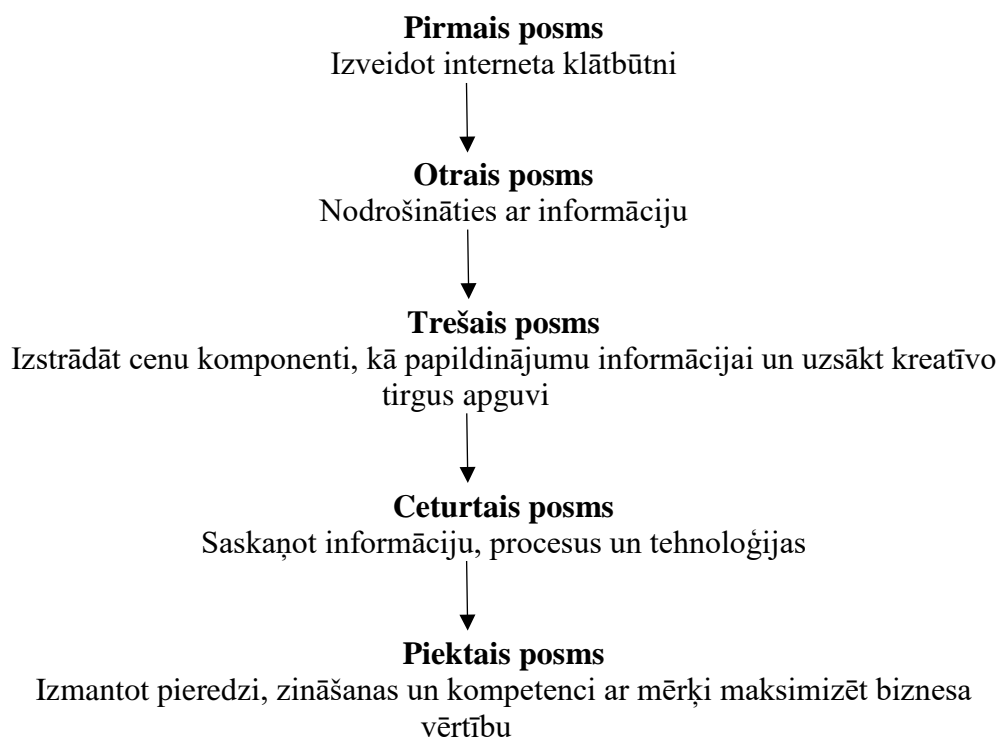
	Nozīme	Standarta novirze
Piegādes laiks	4,07	1,289
Uzņēmuma reputācija	3,97	1,049
Garantijas un galvojums	4,21	1,094
Informācijas konfidencialitāte	3,97	1,193
Interesants produkta apraksts	3,97	1,105
Drošība	4,22	1,079
Preces	4,26	1,088

Līdz ar to jautājums, kas ir laba tīmekļa vietne joprojām nav atrisināts. Varbūt to var izskaidrot ar dažādām aptaujāto nacionalitātēm un kultūru. Minētie pētījumi bija ASV, Ķīnā un Lielbritānijā, bet aptauja Ķīnā, Indijā un Latvijā.

Kā modes mazumtirgotāji izstrādā tīmekļa vietnes? C. Ešvorts (Ashwort, 2005) ir apkopojis dažādās pieejas un piedāvā piecu posmu metodi. Viņš arī uzskata, ka mazumtirgotāju veiksmi nosaka zināšanu daudzums pārejot no viena posma uz otru (skat. 1.att.).

Arī biznesa plānošanā un stratēģijas izvēlē vērojamas atšķirības un nav viena dominējošā stratēģija. Piemēram, ir uzņēmumi, kas veic detalizētu, formālu, labi pārdomātu pieeju lēmumu pieņemšanai, bet ir arī uzņēmumi, kam ir spontāna lēmumu pieņemšana. Tas ir pretrunā ar M. E. Portera (1998) un I. Ansofa (www.mindtools.com/pages/article/new) apgalvojumiem, bet modes mazumtirgotāji, kas strādā dinamiskā vidē, neizmanto tikai vienu metodi

lēmuma pieņemšanai. Uzņēmums “BURDAS salons” izmanto amerikāņu zinātnieku R. Kaplana un D. Nortona sabalansēto rādītāju sistēmu. To var izmantot jebkurš uzņēmums – gan mazs privāts birojs ar internetveikalu, liela veikalu ķēde, arodskola, vidusskola, augstskola utt. Galvenais kā šie objekti spēj atbildēt uz 4 svarīgiem jautājumiem: Kā mūs redz mūsu klienti (klientu perspektīva)? Kur mums nepieciešams pilnveidoties (iekšējo procesu perspektīva)? Vai mēs varam uzlabot un radīt vērtību (inovācijas un mācīšanās perspektīva)? Kā mūs redz mūsu akcionāri (finanšu perspektīva)? (Kaplans, Nortons, 2008).



1.attēls. Pieci posmi tīmekļa vietnes izstrādei elektroniskā modes biznesā
Figure 1 Five Stages of Website Development in Electronic Fashion Business

Protams, ka lielākai daļai uzņēmumu galvenā misija ir saistīta ar Klientu perspektīvu, kur klientu apsvērumus var iedalīt 4 kategorijās: (1) Laiks; (2) Kvalitāte; (3) Darbība un apkalpošana; (4) Izmaksas. Šī stratēģija noder arī izstrādājot tīmekļa vietni.

Kas iepērkas internetā? Dzīvē un arī literatūrā pastāv viedoklis, ka iepirkties, izmantojot katalogu un pastu, ir finansiāli nedroši. Taču elektroniskā tirdzniecība ir vēl sarežģītāka saistībā ar šķietami lielāku risku drošības nodrošināšanā internetā. Par svarīgiem faktoriem interneta tirdzniecības izvēlē tiek uzskatīti dzimums, ienākumi un bērnu skaits. Tomēr jāsaprot, ka dzīve strauji mainās un demogrāfiskie rādītāji var nebūt noteicošie. 1988. g. pētījumā

tika minēts, ka tie ir jauni cilvēki, vīrieši, labi izglītoti, kas nodarbojas ar biznesu. Saprotais, ka šobrīd situācija ir mainījusies un 52% jau ir sievietes, kas iepērkas internetā. Par galveno pozitīvo iemeslu ārvalstu pētījumu respondenti atzīmē iespēju iegādāties preces neizejot no mājas.

Analizējot pircējus, pētnieki izdala tā saucamos *super* klientus, kas pērk modes preces visos trijos kanālos – veikalos, izmantojot katalogu un internetā un to dara daudz vairāk kā vidējais klients katrā no sadales kanāliem. Tomēr ir novērots, ka šie klienti īpaši neinteresējas par aktuālo modi. Tāpēc, lai gūtu panākumus, iesaka mazumtirgotājiem piedāvāt nevis aktuālās modes preces, bet gan standarta apģērbu (Goldsmith, 2005).

Nedrīkst nenovērtēt arī mārketingā pazīstamos situācijas faktorus, tādus kā dienas laiks un referento grupu klātbūtne vai prombūtne u.c., kas ietekmē pircēju izvēli. Situatīvo faktoru nozīmīgums mainās atkarībā no iepirkšanās sadales kanālu izvēles. Piemēram, iepirkšanos modes preču veikalā pircēji izvēlas pērkot tā saucamās preces labsajūtai. Veicot pirkumu internetā laika faktoram ir noteicoša loma. Piemēram, ja nepieciešams iegādāties specapģērbu darbam, tad diez vai pircējs tērēs papildu laiku, ejot uz veikalu, bet iegādāsies to internetā.

Apkopojot **aptaujas** rezultātus, var izdarīt šādus **secinājumus**:

- Visi trīs sadales kanāli (veikali, katalogi, internets) nav stingri nošķirti viens no otra;
- Tās ir 3 dažādas patērētāju pieredzes, kuras tie apvieno, izvēloties vienu no trim sadales kanāliem (atbilstoši noskaņojumam un dzīves stilam);
- Preču iegāde veikalā tiek uztverta kā noskaņojuma uzlabošana, bet internetā iegādājas standarta vai funkcionālus apģērbus;
- Iepirkšanās veidam internetā ir savas priekšrocības, tas samazina laiku un pūles nokļūstot līdz veikalam;
- Patērētāja uztverei ir arī līdzības un atšķirības, pamatojoties uz viņu personiskajām īpašībām;
- e-mazumtirgotāji var labāk atbalstīt savu tiešsaistes klientu, izstrādājot piemērotu mārketinga stratēģiju, lai piesaistītu un pārveidotu potenciālos klientus, efektīvi mudinot viņus pieņemt lēmumu par pirkumu;
- Modes preču iegāde internetā vēl tikai pieņemas spēkā. Aptauja pierāda, ka Covid-19 ierobežojumi veido daudz straujāku preču realizācijas pieaugumu internetā;
- Minētās tendences pētītas tikai konkrētā modes preču sektorā, kas nav populārāko preču sortimentā Latvijas patērētāju iepirkumu vidū.

Secinājumi **Conclusions**

- Konkurence starp tīmekļa vietnēm pamatojas uz informācijas pasniegšanas veidu un to kādu informāciju sniedz tīmekļa vietnes mazumtirgotāji;
- Mazumtirgotāji ar šauru preču specializāciju ir visvairāk pārstāvētie un veiksmīgākie elektroniskās komercijas dalībnieki;
- Ienākumu un pirkumu skaita palielināšana, kā arī zīmola atpazīstamības pieaugums ir būtiskākie iemesli kādēļ tīmekļa vietni labāk veidot B2C formātā;
- Demogrāfiskie mainīgie – vecums, dzimums un nacionalitāte nav saistīti ar patērētāju uzvedību internetā. Tiešsaistes apģērbu pircēji neatšķiras no citu sadales kanālu patērētājiem jautājumos par labsajūtas gūšanu veicot pirkumus;
- Informācija, kas atbilst uzdevumam, iespēja veikt pirkumu, atbildes laiks, cena un stimulējošās programmas – svarīgi faktori, lai prognozētu pircēju apmierinātību;
- Patērētāju uzvedībai nav atšķirību starp modes novatoriem un parastiem modes preču pircējiem;
- Modes preču mazumtirgotājiem nav izdevies izveidot aizraujošu tīmekļa vietnes piedāvājumu.

Summary

The main channel for the distribution of retail goods is gradually becoming the Internet. It is also a binding distribution channel for the sale of fashion goods. It allows the retailer to take opportunity not only to post photos, video and audio material showcasing their latest collections, but also to sell the goods directly to the consumer through a website. According to data from the Interactive Media Retail Group, for example, the UK's online retail turnover increased by 42% in September 2020, by 35.7% in October and by 39% in November compared to the previous year. This trend is also confirmed by eBay- every 7 seconds a product is sold on their site.

The aim of this article is to analyze researches about online fashion retailers conducted by US and British researchers and the results of surveys among Chinese and Latvian students.

Who sells fashion items online? A survey of 303 Chinese college students (Kim, 2004) and 126 Latvian university students, as well as different researches, show that retailers offering a narrow range of goods are best represented. On the other hand, companies with a recognizable brand do not use the Internet. There is a conflicting opinion about the involvement of designers in the implementation of their models thru internet.

The next issue addressed in the researches and surveys was- what helps to create a good fashion website. Researcher N.Then (1999) considers three important visual aspects of a successful website for clothing buyers:

- An online image of the goods that most closely matches the actual product;
- Demonstration of similar products;
- Ability to view the product from different angles (preferably in three dimensions).

But in the survey, Latvian students noted the following aspects:

- Information (information corresponds to the respective task);
- Possibility to perform electronic transactions;
- Response time.

How do fashion retailers design websites? C. Ashwort (2005) has summarized different approaches and offers a five-step method. He also believes that the success of retailers is determined by the amount of knowledge they have - moving from one stage to another. There are also differences in business planning and strategy choice and there is no single dominant strategy. For example, there are companies that take a detailed, formal, well-thought-out approach to decision-making, but there are also companies that have spontaneous decision-making.

Who buys online? There is an opinion in life and also in literature that shopping through a catalog and mail is financially insecure. However, e-commerce is further complicated by the seemingly higher risks of securing on the Internet. Respondents of foreign researchers note the possibility of buying goods without leaving home as the main positive reason. For Latvian students, these are much lower prices than in local stores, more original goods that are not available in the local market.

Key Findings: Competition between websites is based on the way information is presented and what information is provided by website retailers; Information relevant to the task, opportunity to make a purchase, response time, price and incentive programs - important factors to predict customer satisfaction; There is no difference in consumer behavior between fashion innovators and ordinary buyers of fashion goods.

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РОЛЬ РЕСТАВРАЦИИ И УЧЕНЫХ В СОХРАНЕНИИ ПАМЯТНИКОВ ЗОДЧЕСТВА ЭПОХИ ТЕМУРИДОВ

The Role of Restoration and Scientists in the Preservation of Architectural Monuments of the Timurid period

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Abstract. *The article introduces the history of researches and study of the restoration of architectural monuments of the Timurid period. The architecture of the Timurid period of the Central Asian countries and Afghanistan, covering the period from the 14th to the 15th centuries, is one of the brightest phenomena of world architecture. Amir Temur was one of the few leaders who was not only the creator of outstanding architectural masterpieces, but was also able to form a special architectural style in his state. The gardening art of this period also reached a high development. Therefore, the study and research of the architecture of this period, as well as its restoration is an extremely important task in world architecture. In this regard, the scientific, research, restoration works of many famous scientists, architects, architects-restorers are of great importance. Among them are Mauer, Zasyppkin, Pugachenkova, Mankovskaya, Notkin, Zakhidov, Kryukov, Filimonov and many others who made invaluable contribution to the formation of and the development of the restoration school of Uzbekistan, as well as in the promotion and preservation of the cultural heritage of the Timurid period both in Uzbekistan and abroad. The experience of methods of restoration and conservation of architectural monuments of the Timurid period, including their architectural, compositional and artistic solution is considered and studied in the article.*

Keywords: *the architecture of the Timurids period, methods of restoration, the architecture of Uzbekistan, architectural monuments, mausoleums, mosques, madrasahs, architects-restorers.*

Введение *Introduction*

Искусство эпохи Темуридов было распространено на территории Средней Азии, Афганистана и Ирана и охватывает период последней четверти XIV–XV вв. Термин «искусство эпохи Темуридов» широко вошел в научную и популярную литературу, который согласно Г.А. Пугаченковой «...условен, но приемлем, поскольку он ставит определённое явление

художественной культуры в хронологических пределах последней четверти XIV в. – рубежа XV–XVI вв. в основных территориальных рамках тимуридских владений, охватывавших территорию современных стран Средней Азии, Афганистана и восточного Ирана» (Pugachenkova, 1987).

Являясь великим государственным деятелем и полководцем, Амир Темура основал самое могущественное государство своей эпохи в XIV в. – империю Тимуридов. Он внес большой вклад в формирование и развитие истории Средней, Южной и Западной Азии, Кавказа, Поволжья, а также Руси. Амир Темура также покровительствовал развитию наук, культуры и духовности и сыграл важную роль в развитии мировой цивилизации.

В этот период в столице империи Темура – Самарканде, а также Шахрисабзе, Бухаре, Туркестане, Герате, в некоторых других крупных городах и окрестностях осуществлялось строительство грандиозных сооружений. Архитектура по праву производила ошеломляющее впечатление, говоря о величии правителя (Makhmudova, M.T., Makhmudova, M.M., 2016).

В 2021 году в Узбекистане и в других странах мира запланировано проведение юбилейных мероприятий в связи с 685-летием со дня рождения Амира Темура.

Целью статьи является представление результатов исследования, направленных на изучение теоретических основ родоначальников реставрационной школы в Узбекистане и их последователей в области сохранения архитектуры эпохи Тимуридов, включая обобщение ценного опыта, а также введение их в научный оборот и практику современной реставрации.

Методология: методология статьи заключается в анализе и обобщении изученных материалов с применением практического опыта. В ходе написания статьи была изучена литература о реставрации зодчества эпохи Тимуридов, материалы Центрального Государственного архива архитектуры Узбекистана, материалы личных фондов реставраторов. Также были использованы результаты практической работы и опыт архитекторов по реставрации памятников архитектуры. Объектами исследования являются архитектурное наследие Узбекистана, Казахстана, Афганистана: мавзолей, мечети, медресе и архитектурные сооружения других типов.

Изученность проблемы: вопросы реставрации памятников архитектуры в Узбекистане, Казахстане, Афганистане и др. странах изучены и исследованы в контексте трудов учёных и исследователей прошлого и современности, таких как: Засыпкин Б.Н. (Zasyrkin, 1939). *Итоги изучения архитектуры Узбекистана за 25 лет*; Маньковская Л.Ю. (Mankovskaya, 1974). *Ремонты и реставрация мавзолея Ходжа Ахмед Ясави*; Пугаченкова Г.А. (Pugachenkova, 1976). *Зодчество Центральной Азии. XV век*; Захидов П.Ш. (Zahidov, 1979). *Шахи-Зинда*; Махмудова М.Т.,

Махмудова М.М. (Makhmudova, M.T., Makhmudova, M.M., 2016). *Борис Засыпкин – исследователь и реставратор памятников архитектуры Узбекистана и Средней Азии* др.

Научная и практическая значимость статьи: заключается в определении роли реставрации в сохранении памятников архитектуры Узбекистана, Центральной Азии и Афганистана, а также известных учёных, архитекторов, реставраторов Узбекистана, внесших вклад в популяризацию и сохранение архитектуры Темуридской эпохи. В частности, в статье представлены научные реставрационные методики памятников зодчества эпохи Темуридов на примере работ выше представленных ученых, таких как М.Ф. Мауер, Б.Н. Засыпкин, Л.Ю. Маньковская, И.И. Ноткин, П.Ш. Захидов, К.С. Крюков, В.М. Филимонова.

**Исследования и реставрация архитектурных памятников
эпохи Темуридов**
*Research and Restoration of Architectural Monuments of the
Temurid Period*

В эпоху Темуридов во многих городах империи велись большие строительные работы, Так, в столице империи Темуридов – Самарканде и его окрестностях, были проведены значительные градостроительные работы, построены чудесные дворцы, медресы, мавзолеи, в том числе в некрополе Шахи-Зинда. Ансамбль складывался почти девять веков: с XI по XIX век и является блестящим воплощением архитектурной мысли, художественно-эстетических эталонов, строительно-инженерной практики и монументально-декоративного искусства (Makhmudova, M.T., Makhmudova, M.M., 2016).

Истории известно, что Темуридов приложил много сил для того, чтобы поднять идеологическую значимость святыни Кусам ибн Аббаса. Паломничество к этому мазару стало приравниваться к хаджу. В результате, уникальный архитектурный ансамбль мавзолеев Шахи-Зинда, и якобы погребенного здесь Кусам ибн Аббаса (ближайший сподвижник и двоюродный брат пророка Мухаммада, который был одним из первых проповедников ислама в Средней Азии), в период правления Амира Темура разросся и заново переоформился.

Среди нижней группы памятников особо выделяется величественное двухкупольное здание, предположительно один из загородных жилых домов, перестроенный после смерти его хозяйки – Ульджаим, в мавзолее, исследованием которого занимался учёный Захидов. Он раскрыл немало тайн, связанных с памятниками древнего зодчества Узбекистана. В одной из его публикаций представлены результаты исследования ансамбля

Шахи-Зинда (Zahidov, 1978). Учёный рассказывает о том, что с 1941 года двухкупольное здание на Шахи-Зинда стало во всех изданиях упоминаться как мавзолей учёного Кази-заде Руми, хотя до того мавзолеем считался местом погребения кормилицы Амира Темура и её дочери.

Изучив документы и литературные источники (1871–1872 и 1883 годов), он приходит к выводу, что версия о погребении женщины верна. Многие были с этим не согласны, так как в купольном здании на порталной нише сохранился фрагмент крупной майоликовой надписи, начало и конец которой утрачены и поэтому один из исследователей этого памятника – В. А. Шишкин, перевёл текст неточно. «В уточнённой версии он выглядит так «... прибежище шариата и веры, почившая мать султана». Следовательно, в надписи упоминается знатная женщина из царского дома, мать и воспитательница одного из султанов» (Makhmudova, M.T., Makhmudova, M.M., 2020).



Рисунок 1. Мемориальный комплекс Шахи Зинда. Самарканд, Узбекистан XI–XIX вв. (Автор фото – Мухайё Махмудова)
Figure 1 Shakhi-Zinda Memorial Complex. Samarkand, Uzbekistan. 9–19 cc. (Photos by Muhayyo Makhmudova)

Для окончательного решения проблемы было решено вскрыть захоронение. В ноябре 1977 года комиссия Института искусствознания, Института археологии АН Узбекистана, Самаркандской реставрационной мастерской открыла захоронение в склепе мавзолея. В результате обнаружилось, что здесь похоронена женщина, и не осталось никаких сомнений в версии Захидова. В связи с этим был поднят ряд других историко-архитектурных вопросов (Makhmudova, M.T., Makhmudova, M.M., 2020).

Как известно, некоторые памятники, которые дошли до нас в сильно разрушенном состоянии, должны сохраняться в виде руин. Так, Б.Н. Засыпкин считал, что ремонтные работы для таких памятников должны носить укрепительный характер, и в пример он приводил такие памятники

эпохи Темуридов, как мечеть Биби-ханым, мавзолей Биби-ханым, Ишратхана, мавзолей Ак-сарай в Самарканде и многие другие. В свое время он провел подобные работы на мавзолее Ак-сарай, построенного в XV веке предположительно в качестве усыпальницы для потомков Темура. В 1925 году он с группой ученых (М.Е. Массон, В.С. Попов, И.К. Крачковский) провел научно-исследовательскую и обмерные работы. В результате этих работ, Б. Н. Засыпкиным были проведены характерные работы по консервации памятника от его дальнейшего разрушения. В частности, были восстановлены конструктивные элементы сводчатой конструкции, укреплены оставшиеся декоративные своды и т.д. В 1927 году М. Ф. Мауером были произведены расчистка завалов свех перекрытий и устроены предохранительные выстилки кирпичом. Благодаря своевременно и правильно проведенным работам архитекторов-реставраторов мавзолей Ак-сарай в Самарканде памятник до определенного времени сохранял вид руин и романтического налёта старины, который так ценится любителями старины (Makhmudova, 1991). В последующем памятник был полностью отреставрирован.

Однако ни на всех памятниках можно осуществлять консервацию, особенно если они находятся в центре города или на видном месте, например на памятниках ансамбля Регистан в Самарканде, которые требовали не только консервации, но и определенных восстановительных работ.

Так, например, уникальная работа была проведена в Самарканде (1932 г.) – выпрямление 32 м. северо-восточного углового минарета медресе Улугбека (1415–1420 года). В начале 20-х годов XX века минарет находился в критическом состоянии. И тогда было предложено заново построить минарет, которое Мауер отверг, т.к. он потерял бы историческую ценность. Первый проект разработанный Мауером был отклонён, и тогда был разработан проект, совместно с В. Г. Шуховым, на основе идеи, предложенной Мауером (Makhmudova, M.T., Makhmudova, M.M., 2018). На уровне центра тяжести минарет был одет в деревянный каркас (который позднее был заменен на стальной), и подвязан стальными тросами и опорами, чтобы остановить его поступательное движение. В течении пяти лет, велись наблюдения, проверка всех металлических конструкций, подготовительные работы (Mauer, 1932). В 1932 году установленную арматуру привели в действие, огромный ствол минарета был целиком отделён от своего основания, затем был закреплён на раме с шатунами. Повреждённую нижнюю часть удалили от уровня фундамента, заменив её железобетонной кладкой. Затем, приложив усилие в 12 кг, короткими поворотами винта с паузами разной длины в течение нескольких часов ствол минарета качнули в обратном направлении и выпрямили. Затем постепенно

вытащили из-под него одну за другой мощные двутавровые железные балки и установили минарет весом около 400 т на новом основании в вертикальном положении. Через некоторое время, освобождённый от деревянного каркаса, тяжёлый (стальные тросы) и металлической конструкции, минарет был покрыт новой облицовкой из мраморных плит и изразцов у своего основания (Masson, 1968). В 1965 году инженерами Э.М. Генделем и Е.О. Нелле был выпрямлен и отреставрирован юго-восточный минарет.

Ещё одно из требований Б.Н. Засыпкина, которые нужно было соблюдать при реставрационных работах, то, что при ремонтных работах нужно использовать те материалы, из которых был построен памятник. (Засыпкин, 1926). Б.Н. Засыпкиным был сформулирован принцип научной реставрации, ставший хрестоматийным: «...при всей документальности восстанавливаемых частей реставрационные работы ставят себе целью не затрагивать сохранившихся древних частей уничтожением или частичной разборкой, новые же доделки делать в соответствии с древними» (Zahidov, 1974).

При Темуриде и Темуридах особое внимание уделялось сооружениям династических мавзолеев. К возведению их привлекались лучшие зодчие эпохи, которые соревновались в создании усыпальниц то грандиозных, то небольших, но всегда насыщенных богатым убранством, и всегда непохожих друг на друга. В числе их – Дорус-Сиадат в Шахрисабзе, Гур-Эмир и большая часть построек выше упомянутой Шахи-Зинды в Самарканде.

Величественное здание, монументальный мавзолей Гур-Эмир, усыпальница, в которой погребен сам Сахибкиран (так в персидских и тюркских средневековых источниках называли Амира Темура, что означает «рожденный во время соединения двух планет» или «счастливый»), и который Темур начал строить в честь погибшего царевича Мухаммад-Султана, внезапно скончавшегося в Малоазиатском походе. В мавзолее Гур-Эмира господствовало простота сильных архитектурных форм, лаконизм орнаментальных мотивов. Восьмигранная призма основания с крупным диагонально развертывающимся геометрическим узором, цилиндрический барабан с огромными буквами коранической надписи, массивный рубчатый купол. Богато оформленные интерьеры мавзолея сплошь покрыты росписями. Декор мавзолея неразрывно связан с его архитектурой.

Ещё в 1924 году М.Ф. Мауер обследовал техническое состояние ребристого купола мавзолея Гур-Эмир и установил, что он находится в остро-аварийном состоянии. Также проводя исследования, он пришёл к выводу, что сейсмические направления с юго-востока и северо-запад, и с юга на север повлияли на общую деформацию мавзолея. Здесь Мауер

провёл ряд мероприятий по сохранению памятника. Так, в 1925 году он своевременно осуществил работу, которая позволила предупредить обвал свода под склепом также в мавзолее Гур-Эмир, над которым находилось знаменитое надгробие Темура из нефрита. М.Ф. Мауером было введено очень интересное железобетонное перекрытие на самостоятельных опорах, между каменным полом и сводом, которая воспринимала всю нагрузку, давившую на свод, это позволило гарантировать сохранность надгробия и свода на многие годы, а вместе с тем сохранить внутренний вид мавзолея и склепа. Кроме того, его исследование склепа, пилонов и многих других частей дали ценный научно-технический материал. Так, например, было определено качество алебастрового раствора, причины деформации памятника, прослежены следы действий на них сейсмических толчков. Мауер смог зафиксировать следы их появлений во время землетрясений (Zasyrkin, 1950). А уже в 1936 году Мауер укрепил железными кольцами растрескавшийся огромный барабан и ребристый купол мавзолея. Даже в следующие годы, когда на куполе были продолжены реставрационные работы, выяснилось, что лучше деревянных конструкций, разработанных этим учёным, ничего другого не было (Zasyrkin, 1926).

Эти и многие другие работы, проведённые М.Ф. Мауером, служат образцом лучших реставрационных работ, которые были сделаны в Средней Азии, они были проведены с особой тщательностью и научным обоснованием (Makhmudova, M.T., Makhmudova, M.M., 2018).

В свое время Засыпкин писал о Мауере, что «...только благодаря научно-исследовательским работам М.Ф. Мауера; который бескорыстно делится со всеми работниками в этой области, наука по изучению монументальными памятниками материальной культуры, обогатилась достижениями, помогающих правильному пониманию и освоению архитектурного наследия и дающих основу к построению истории архитектуры Узбекистана» (Zasyrkin, 1939).

Уже под руководством Б.Н. Засыпкина в 1943–1950 годах были продолжены и проводились сложные и ответственные работы по реставрации мавзолея Гур-Эмир в Самарканде. Главными из них в 1948 г. были работы по завершению конструктивного укрепления ребристого купола и восстановление его облицовки. Никакие работы на куполе с внешней стороны нельзя было производить, пока он не был укреплён с внутренней стороны, а поэтому, закончив работы по укреплению в 1948 году, Б.Н. Засыпкин приступил к реставрации ребристого купола и его облицовки. В работах участвовали и народные мастера: Акрам Укмуров, Мухаммад Юнусов со своими бригадами. Б.Н. Засыпкин часто в разговоре упоминал, что без участия мастеров реставрации были бы невозможны.

В декабре 1949 года работы по реставрации Гур-Эмира были приняты правительственной комиссией.

По велению Темура в Шахрисабзе, родине великого полководца, был построен дворец Ак-сарай, в котором имеется надпись: «Если сомневаешься в нашем величии – посмотри на наши строения». В этом изречении заключена суть отношения Сахибкирана к градостроительству и его стремление создать поистине архитектурные шедевры (Makhmudova, M.T., Makhmudova, M.M., 2016). В 1936 году на этом памятнике М.Ф. Мауером были начаты работы по укреплению цокольной части портала дворца, так как было замечено постепенное разрушение и падение керамической облицовки, которое не поддерживалось цоколем.

В 1389–1399 годах в Туркестане над захоронением популярного среди местных кочевников поэта-мистика и религиозного проповедника Ходжи Ахмеда Ясави был возведен мавзолей, также построенного по указанию Амира Темура. С 1955–1959 годов Л.Ю. Маньковская, архитектор-куратор мавзолея Ходжи Ахмеда Ясави, впервые собрала и систематизировала сведения о его ремонтах с XVI века по 1959 год и критически осмыслила работы исторического и плана С.Г. Маллицкого, А.А. Семёнова, М.Е. Массона и др. (Yelgin, 2013). Доктор архитектуры Маньковская Л.Ю. 17 лет занималась исследованиями этого объекта. За эти годы ею были осуществлены не только координация работ всех специалистов, архитектурно-археологические наблюдения и лабораторные исследования, но она и сама принимала участие в закладке фундаментов, реставрации фасадов и куполов, обмерах, вычерчивании десятков разрезов, планов, фасадов, проектов. Она знала в комплексе Ахмеда Ясави каждую трещину, каждую деталь. В результате проведённых исследований удалось установить периодизацию его сложения, состав мастеров и их имена, а главное – выявить композиционные приёмы зодчих XIV века. Именно на этом здании были выявлены документально методы проектирования древних мастеров, Л. Ю. Маньковская открыла их аналитическим путём, при обмерах объекта с данными исторических источников (Makhmudova, 1989).

И впоследствии многолетний труд лёг в основу кандидатской диссертации «Исследование архитектурного комплекса – мавзолея Ахмеда Ясави в городе Туркестане и вопросы его реставрации», которую Л. Ю. Маньковская защитила в 1963 году и на тот момент еще не опубликовала (Махмудова, 1989).

Приступая к реставрации туркестанского мавзолея, Б.Н. Засыпкин подвёл итоги предыдущих исследований, главным образом археологических и инженерных. Его наблюдения, обобщения и выводы также отложились в архивах. Публикаций о мавзолее, тем более отдельных

изданий было мало. И только в 1989 году Махмудовой М.Т., одним из авторов этой статьи, впервые была опубликована специальная работа, рассказывающая об истории исследований и реставрации мавзолея Ахмеда Ясави. Как было отмечено Ёлгином, «... конечно, в небольшой статье не возможно было осветить некоторые вопросы этой истории», но с другой стороны он считает, что автором данной статьи приведен ряд интересных, просто незаменимых фактов из продолжительной и очень тяжёлой реставрации мавзолея (Yelgin, 2013).



*Рисунок 2. Мавзолей Ходжи Ахмеда Ясави. Туркестан, Казахстан. 1389–1399 гг.
Figure2 Mausoleum of Khoja Ahmed Yasawi. Turkestan, Kazakhstan. 1389–1399*

Так, например, в 1925 году вёлся довольно крупный ремонт мавзолея Ясави: были переложены нижние части некоторых помещений, перекрыта куполом помещение «кудукхана», вскрывались фундаменты под археологическим надзором, продолжалось чтение эпитафии мавзолея. В 1926 году инженеру Козловскому удалось спасти от разрушения некоторые части постройки.

В 1939–1940 годах были проведены ремонтно-реставрационные работы также под руководством Б. Н. Засыпкина, при участии профессора Н.Б. Бакланова и при консультации старейшего архитектора–реставратора памятников Самарканда М.Ф. Мауера и знатока Темуридской архитектуры. Бакланов предлагал разобрать и строить заново уникальные части здания – большого пештака и северо–западного угла мечети. Б. Засыпкин и М. Мауер предложили консервацию и укрепление древних конструкций и эта методика была положена в основу дальнейших работ. Строгая методика документальной реставрации в последующие годы была принята и первыми казахстанскими реставраторами – А. Проскуриным и Б. Туякбаевой (Makhmudova, 1991).

На юго-западе городища Старый Термез виднеются голубые купола восстановленной ныне усыпальницы шейха одного из суфийских орденов. Этот архитектурный памятник является мавзолеем «мудреца из Термеза» – Хакима ат-Термези, полное имя которого – Абу Абдуллох ибн Хасан ибн Башир. Это был великий теоретик исламского суфизма, выдающийся ученый и основатель ордена дервишей. Ещё тогда, когда возводилась ханака, над могилой Хакима ат - Термези было поставлено надгробие – сагана, вытесанное из белого мрамора и представляющий шедевр камнерезного и орнаментального искусства мастеров Темуридской эпохи.

Начиная с 1955 года в течение многих лет по поручению Б.Н. Засыпкина, кандидат архитектуры, ведущий специалист в области реставрации памятников архитектуры Средней Азии В.М. Филимонов глубоко и настойчиво занимался исследованием целого комплекса Хакима ат-Термези. В конце 50-х годов XX века были проведены реставрационные работы, а в 1980-х годах был восстановлен декор главного мавзолея. В результате, проведённых В.М. Филимоновым исследований, было определено время его сложения, периоды разрушений комплекса, планировка, архитектурное решение, декор, установлена последовательность их возведения, датировка, раскрыты другие стороны истории. Открыта уникальная резьба по ганчу IX–X веков, найдено великолепное мраморное надгробие с эпитафией в честь Хакима ат-Термези с датой его смерти, на территории и в толще стен четырёх купольной мечети XIX века, были вскрыты остатки мечетей IX–X, XI, XII, XVI веков и т.д. Фактически были решены почти все вопросы, связанные с историей его сложения и эволюции, проведено профилактическое укрепление и реставрация памятника, которые были продолжены в последующие годы в связи с его приспособлением. (Диплом Лауреата Всесоюзного смотра «За реставрацию комплекса Хакима ат Термези в Узбекистане, 1984 год).

В 1990 году по решению ЮНЕСКО отмечалось 1000-летие Хакима ат-Термези, который считается духовным покровителем города Термеза. Теперь мавзолей Хакима ат Термези стал местом паломничества мусульман всего мира. На территории комплекса построен Музей, в котором выставлены редкие экспонаты, найденные во время археологических раскопок, проведённых одновременно с реставрацией. Многие исследовательские работы Филимонов В.М., представляют ценный научный материал не только по истории памятников, но и общей истории (Makhmudova, 1990).

Выводы *Conclusions*

Б.Н. Засыпкин, М.Ф. Мауер, Л. Ю, Маньковская, В.М. Филимонов и многие другие внесли неоценимый вклад в сохранение памятников эпохи Темуридов. Их сложная профессия архитектора–реставратора требует обладания научными и практическими знаниями в области архитектуры, строительства, реставрации, архитектурного декора и многих других соответствующих вопросов и проблем, при проведении реставрационных и консервационных работ на памятниках эпохи Темуридов. А также:

1. При реставрации памятников эпохи Темуридов важное значение имело грамотное проведение научных архитектурно–археологические исследования памятника. Однако, важно также было определить и принять решение какие работы следует проводить на памятники, в частности требуется ли консервация или ремонтно–реставрационные работы, в некоторых случаях нужна была реконструкция или восстановление памятника. Все это определяло будущее памятника и его дальнейший облик. Также, особую роль играло владение методикой реставрации архитектурного наследия данной эпохи.
2. Реставрация и консервация памятников эпохи Темуридов внесло большой вклад в развитие реставрационной школы Узбекистана. Многие методики реставрации и консервации были новаторскими и в дальнейшем они использовались при проведении подобных работ на других памятниках, включая и других эпох.
3. По настоящее время существует острая нужда в научной и практической работе и литературе по реставрации и консервации как памятников эпохи Темуридов, так и Узбекистана и стран Центральной Азии в целом. Многие из существующих публикации были изданы много лет назад, а изучением вопросов реставрации Узбекистана в настоящее время занимаются всего несколько ученых. Соответственно, очень важно взрастить новое поколение, которое будет развивать реставрационную школу, как через научный подход, так и используя практически традиционные и современные методы, также основанные на старой школе реставрации, так как благодаря этой школе были сохранены многие памятники архитектуры Узбекистана.

Summary

The architecture of the Timurid period is a unique phenomenon in the world of architecture. It absorbed the features of the architecture of the past and received a new and grandiose development. New majestic structures were revived and built, as well as architectural ensembles and urban spaces created. Many researchers call the art and architecture of this period as the Temurid Renaissance.

The restoration of the monuments of the Temurid period and their study by venerable scientists have brought great results in the formation and development of the restoration school of Uzbekistan.

The preservation of the rich architectural heritage of the Temurid period is still urgent and requires careful and long-term restoration measures. The restoration school of Uzbekistan has been created over many decades and has left a rich scientific and practical heritage. It was reflected in the works of such figures as B.N. Zasytkin, M.F. Mauer, P.Sh. Zakhidova, L.Yu. Mankovskaya and others. A study of the work of these predecessors would help to improve and improve the quality of the restoration work. Study of the work of these predecessors will contribute to the improvement the quality of restoration in Uzbekistan.

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DISKURSI LATGALIEŠU PRESEĒ PAR PIEMINEKĻA “VIENOTI LATVIJAI” KONCEPCIJU (20. GADSIMTA 20. UN 30. GADI)

Discourses on the Concept of the Monument “United for Latvia” in Latgalian Press (the 1920s and 1930s)

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Abstract. *The monument “United for Latvia”, unveiled in the centre of Rezekne in 1939, is dedicated to the participants of the Latvian War of Independence (1918–1920.), who took part in the liberation of Latgale from the Bolsheviks. In a broader sense, it symbolizes the whole Latgale, the liberation of the people from foreign powers, as well as the unity of Latgale with the rest of Latvia. Nowadays, the monument is a signature of Latgale, its image is widely used in booklets, souvenirs, on the covers of books and brochures, in advertisements, etc. Despite the significance and popularity of the monument, its history has been little studied. Before the monument was erected, there was a series of discourses on its concept in Latgalian press. The aim of the article is to identify in the course of the exploration of Latgalian press publications the direction of the public opinion in the 1920s and 1930s on the discourses of what should be the ideological and visual appearance of the monument of the liberation of Latgale and its unification with the rest of Latvia. The study is based on the historical approach to discourse and qualitative, comparative analysis of information. The study examines two topics of discourse: the choice of the monument site and the type of the monument; the ideological and visual solution of the monument.*

Keywords: *discourses, Latgale, Latgalian press, monument “United for Latvia”, Rezekne.*

Ievads

Introduction

Pieminekļi ir uzlūkojami ne tikai kā estētiska kategorija, to radīšanas iemesli ir cieši saistīti ar nacionālās identitātes veidošanu un stiprināšanu. Tos jāuzlūko arī kā valdošās ideoloģijas atspoguļojumu. Pieminekļu izbūves jēga saistāma ar svarīga vēsturiska notikuma vai vēsturiskas personības piemiņas uzturēšanu sociālajā atmiņā. Pieminekļiem piemīt arī didaktiska funkcija – audzināt tagadnes pilsoņus un nākamās paaudzes (Barrachina, 2020).

Pieminekļis “Vienoti Latvijai” atrodas Rēzeknes pilsētā un ir veltīts Latvijas Neatkarības kara (1918–1920) dalībnieku piemiņai, kas piedalījās Latgales

atbrīvošanā no lieliniekiem. No vēsturiskā un idejiskā skatpunkta piemineklis uzskatāms par monumentu, jo plašākā nozīmē tas reprezentē visu Latgali, tautas atbrīvošanos no svešām varām, kā arī Latgales vienotību ar pārējās Latvijas novadiem. Tāpēc piemineklis tiek dēvēts arī par Latgales Atbrīvošanas pieminekli, bet tautā – arī par Latgales Māru.

Pētījuma aktualitāti noteica divi faktori: 1) pieminekļa liktenis raksturo Latgales un visas Latvijas vēstures liktenīgos notikumus 20. gadsimtā; 2) mūsdienās piemineklis ir sava veida Latgales vizītkarte. Tā attēls ir plaši sastopams bukletos, suvenīros, uz grāmatu un brošūru vākiem, reklāmās u. c. Neskatoties uz pieminekļa nozīmi un popularitāti, tā vēsture ir samērā maz pētīta. Izpēte ir bijusi fokusēta uz pieminekļa vēsturi pēc tā uzstādīšanas un ir aprobežojusies ar atsevišķiem rakstiem periodikā, interneta resursos, vārdnīcās, pieminekļa apaļām gadskārtām veltītajām ekspozīcijām. Taču nav izvērstāku pētījumu par pieminekļa idejas un vizuālā risinājuma tapšanu. Šajā sakarā jāatzīmē, ka pirms pieminekļa uzstādīšanas latgaliešu presē bija virkne diskursu par pieminekļa koncepciju.

Raksta mērķis ir, izpētot 20. gadsimta 20. un 30. gadu latgaliešu preses izdevumus, noskaidrot sabiedriskās domas virzību diskursos, kādam idejiski un vizuāli jābūt Latgales atbrīvošanas un apvienošanās ar pārējo Latviju piemineklim.

Pētījuma tapšanā tika izmantota informācija no latgaliešu, kā arī Rīgā izdotajiem laikrakstiem un žurnāliem. Prese ļauj ne tikai iegūt informāciju, bet arī dod aktuālu notikumu vērtējumu, attieksmi, kas izpaužas gan redakcijas komentāros, gan lasītāju vēstulēs. Raksta tapšanā pamatā tika izmantoti raksti no ideoloģiski pretējām latgaliešu avīzēm, tām, kuras visaktīvāk piedalījās polemikā par pieminekli – „Latgolas Vārds” un „Jaunō Straume”. Neskatoties uz to, ka „Latgolas Vārds” bija avīze katoliski kristīgā gara uzturēšanai tautas vidū, tā lielu uzmanību veltīja arī kultūras, izglītības un saimnieciskajiem jautājumiem. Savukārt avīzei „Jaunō Straume” bija izteikti sekulārs raksturs.

Pētījums balstās uz kvalitatīvo un salīdzinošo datu analīzi, diskursa vēsturisko pieeju, izmantojot nošķiruma „pareizais”–„nepareizais” diskursīvo konstrukciju. Raksta ietvaros konstrukcija „pareizais”–„nepareizais” atvasināta no konstrukcijas „mēs”–„viņi”, kas parasti veido pamatu stereotipiem un aizspriedumiem (Delanty, Wodak, & Jones, 2008). Rakstā vairākkārt ir izmantoti citāti no laikrakstiem ar mērķi parādīt arī lingvistiskos paņēmienus, kādi tika izmantoti savas argumentācijas akcentēšanai vai oponenta idejas kritikai. Pētījumā ir aplūkoti divi diskursu temati: pieminekļa vietas izvēle un pieminekļa veids; pieminekļa idejiskais un vizuālais risinājums.

Pieminekļa nozīme un raksturojums *Meaning and Characterization of the Monument*

Pieminekļa vieta Rēzekne nav nejauša, jo 1917. gada pavasarī te notika svarīgs notikums virzībā uz Latvijas valsts proklamēšanu – Latgales kongress. Kongresā tika pieņemts liktenīgs lēmums par Latgales apvienošanos ar pārējiem Latvijas novadiem. Tāpat kā Brīvības piemineklim (1935) un Brāļu kapu ansamblim (1936) Rīgā, piemineklim “Vienoti Latvijai” ir kopēja nacionāla un valstiski svarīga nozīme. Tādējādi tas ir trešais kopnacionālais monuments, vienīgais ārpus galvaspilsētas Rīgas (Lukaševičs, 2012).

Piemineklis ir 11 metrus augsts un sastāv no granīta postamenta un no trim piramidāli orientētām bronzas figūrām – pastalās tērpta važu rāvēja ar kailu ķermeņa augšdaļu, tautu meitas, kura nometusies uz ceļiem, sniedz važu rāvējam ozollapu virteni, centrālās sievietes tautu meitas tērpā figūras, kura izstieptā un paceltā labajā rokā tur apzeltītu krustu. Važu rāvējs simbolizē Latvijas Neatkarības kara cīņas Latgalē, ceļos nometusies tautu meita – pateicību un lūgšanu, bet centrālā sievietes figūra – brīvo Latgali (1. attēls). Pieminekļa figūras ir vērstas uz dienvidiem, tādējādi saulainā laikā figūru sejas un apzeltītā krusta spīdums izskatās īpaši izteiksmīgi.

Pieminekļa svinīga atklāšana notika 1939. gada 8. oktobrī (pieminekļa meta autors – Leons Tomašickis (1904–1996), tēlnieks – Kārlis Jansons (1896–1986)). Piemineklis tika divas reizes gāzts (1940, 1950) un divas reizes atjaunots (1943, 1992). 1992. gada 13. augustā atklātā atjaunotā pieminekļa tēlnieki bija K. Jansona dēls Andrejs Jansons (1937–2006) un Indulis Folkmanis (1939). Padomju varas gados gāztā pieminekļa vietā bija uzstādīts piemineklis Krievijas revolucionāram un boļševiku partijas vadonim Vladimiram Ļeņinam (1870–1924).



1. attēls. *Piemineklis “Vienoti Latvijai”* (Foto: Māris Justs, 2018)
Figure 1 Monument “United for Latvia”

Diskursus par pieminekļa koncepciju ietekmējošie faktori ***Factors Influencing the Discourses on the Concept of the Monument***

Aplūkojot diskursu tematiku par pieminekļa koncepciju, ir jāņem vērā daži vēsturiski izveidojušies faktori, kas tieši vai netieši to ietekmēja.

Latgales reģiona īpatnību jautājums. Vairākumam Latvijas sabiedrības Latgale un tās pamatiedzīvotāji – Latgales latvieši (latgalieši) – asociējas ar „no malas saredzamām” jau labi zināmām reģionālajām īpatnībām: latgaliešu valodas savdabību un katolicisma dominanti iepretim luterānismam pārējā Latvijā. Latgales īpatnību jautājums bija aktuāls arī tāpēc, ka pēc Latvijas valsts proklamēšanas latviešiem vēl trūka kopējās nacionālās apziņas. Nereti latvieši sevi iedalīja “latgaliešos un baltiešos, īstajos un neīstajos, čangaļos un čiuļos” (Brolišs, 2000, p. 39). Tā kā nacionālās atmodas procesi Latgalē varēja sākties tikai pēc tā dēvētā drukas aizlieguma (1865–1904) atcelšanas, t.i., aptuveni pusgadsimtu vēlāk nekā pārējā Latvijā, pēc Latvijas valsts izveidošanās latgalieši lielā mērā vēl atradās nacionālā romantisma stadijā, bet „tautas brāļi” jau bija daudz pragmatiskāk noskaņoti, viņus maz interesēja Latgales īpatnību kultivēšana, bet gan ko Latgale varētu dot – darbaspēku, linus, tirgu (Počs, 1997). 1917. gada Latgales kongresā latgalieši iestājās par Latvijas novadu apvienošanu, saglabājot Latgales specifiku un autonomiju. Latvijas Satversmes sapulces sēdē 1921. gada 5. oktobrī tika noraidīts latgaliešu deputātu pieprasījums pēc Latgales apgabala pašvaldības tiesībām (LRSSS). Minētie faktori sekmēja virkni diskursu latviešu nacionālkonservatīvajā presē par latgaliešu attiecībām ar pārējās Latvijas latviešiem. Topošā Latgales Atbrīvošanas pieminekļa kontekstā avīze “Latgolas Vārds” akcentēja šo problēmu: “Doma strādāt ar pārējo Latviju, veidojot vienu kultūru un cīnīties kopējiem spēkiem, aizstāvēt Latvijas godu un tiesības [...] Šo domu ietērt figurālās formās ir diezgan smags darbs, jo Latgale pēc sava gara, ticības un materiālajiem apstākļiem stipri atšķiras no pārējās Latvijas. Latgalieša raksturs, dvēsele un domas ir īpatnējas, baltiešiem nesaprotamas” (Borbals, 1933).

Pēc Latvijas valsts nodibināšanas Latgalē vēl trūka ierēdņu, ārstu, skolotāju. Šo trūkumu aizpildīja vairāk kā 40 000 iebraucēju no citiem Latvijas novadiem – pamatā luterāņu (Skujenieks, 1931, p. 157). Latgalē nebija vēl arī savu profesionālo mākslinieku, kā arī tēlnieku. Tā kā 1934. gadā pavasarī Rīgas periodikā tika nopublicēts Vidzemē dzimušā tēlnieka K. Jansona piedāvātais Latgales Atbrīvošanas pieminekļa mets, latgaliešu prese gan klerikālā, gan sekulārā reaģēja asi. K. Jansons tika nodēvēts gan par kapu krustu taisītāju, “kurš pazīstams kā lēts skulptors, bet vēl lētāks mākslinieks” (Vārētōjs, 1934), gan par cilvēku, kuram uz pieminekli ir nevis mākslinieka, bet veikalnieka skatījums, “ka tik būtu “šefts” (Borbals, 1934).

Latgaliešu intelīģences idejiskā polarizācija. Latgale bija vienīgais novads Latvijā, kur izveidojās sava reģionālu partiju sistēma. Latgali Latvijas parlamentā pārstāvēja 3–5 latgaliešu politiskās partijas. Ietekmīgākā bija Latgales Kristīgo zemnieku savienība (kopš 1933. gada Kristīgo zemnieku un katoļu partija), kuras priekšgalā atradās katoļu garīdznieki. Partija pārstāvēja klerikāli konservatīvo virzienu un tai bija sava avīze – “Latgolas Vārds”. Pretējā pozīcijā bija Latgales Darba partija, kura pārstāvēja centriski kreiso, demokrātisko virzienu (Jēkabsons & Ščerbinskis, 2006). Savus uzskatus partija pauda avīzē “Jaunō Straume”. Rakstnieks Ādolfs Erss (1885–1945) 1932. gadā rakstīja, ka “ir jau divas Latgales: vecā, kas drūzmējas ap baznīcām, un jaunā, kura sauc pēc modernas kultūras, civilizācijas un dogmatiskai domai liek pretim zinātnisko. Šīs divas Latgales, liekas vairs nesapratīsies” (Erss, 1932). Latgaliešu idejiskās neskaņas un pretišķības izpaudās arī diskursos partiju avīzēs par topošo Latgales Atbrīvošanas pieminekli, it īpaši jautājumā par kristīgo simbolu iekļaušanu vai neiekļaušanu tajā.

Viens aktīvākajiem viedokļa paudējiem bija katoļu baznīcas bīskaps Pīters Strods (1892–1960). Balstoties uz Vācijā un Austrijā novēroto par Pirmajā pasaules karā kritušajiem karavīriem veltītajiem pieminekļiem, viņš avīzē “Latgolas Vārds” akcentēja, ka “pieminekļi ir otrā svētnīca tautas sirdīs”, tāpēc tajos ir jāattēlo visas tautas jūtas un cerības. P. Strods arī norādīja uz tautai tuvajiem simboliem – Jaunavas Marijas, Kristus tēls (Strods, 1925) un Golgātas krusts (Strods, 1924a). Savukārt avīze “Jaunō Straume” bija kategoriska pret reliģiskajiem simboliem, sevišķi krusta motīva izmantošanu piemeklī: “Latgales dzīve jau noslogota ar krustiem tāpat kā Vācija ar kāškrustiem. Laiks būtu apzināti attālināties no krustiem, laiks būtu tautas dvēselē mest gaišākus starus [...] gribas ticēt, ka piemeklī ietvers kaut kādā formā arī progresīvu ideju [...] citādi mēs varam piedzīvot laiku, kad, par visas tautas līdzekļiem celtais klerikālisma rēgs būs jānojauc” (Vārōtōjs, 1934).

Apzīmējuma “Latgales Māra” jautājums. Kā jau tika pieminēts, piemeklī “Vienoti Latvijai” tautā visbiežāk dēvē par Latgales Māru vai Māras piemeklī. Piemeklī idejas autora L. Tomašicka veidotā projekta devīze bija “Māras zeme”. Termina “Māras zeme” izcelsme saistāma ar Latvijas teritorijā dzīvojošo baltu un lībiešu cilšu kristianizāciju 12. gadsimta beigās un 13. gadsimta sākumā. Oficiālais viduslaiku Livonijas nosaukums bija “Terra Mariana” (“Jaunavas Marijas zeme”). Gadsimtu gaitā tautas apziņā Jaunavas Marija tēls pakāpeniski saplūda ar senlatviešu dievības Māras tēlu, kas sākotnēji bija materiālās pasaules dievība – zemes un ūdeņu pārvaldniece. Dainās tiek apdziedāta Dieva Māra, Māras baznīca, Māras istaba, Māras pirts u.tml. Māras parastie epitēti ir: svētā un mīlā, retāk – Māriņa. Latvieši (latgaļi) “Jaunavas Marijas tēlu apvienoja ar mītisko Māru un ielika tajā savu – reģionāli un etniski iekrāsotu – saturu, gaišu, vitāli spēcīgu, cildenu aizsargājošu jēgu” (Zeile,

2006, p. 105). Tā kā no kristīgās baznīcas viedokļa senlatviešu Māra tomēr bija pagānisma izpausme, tad Latgales Atbrīvošanas pieminekļa idejas kontekstā tika uzturēti diskursi arī par tautu meitas motīva izmantošanu.

Diskursu temati *Topics of Discourse*

Pieminekļa vietas izvēle un pieminekļa veids *Choice of the Monument Site and Type of the Monument*

Pārvarot dažādas nesaskaņas, Latgales Atbrīvošanas pieminekli tika nolemts būvēt Rēzeknes augstākajā vietā iepretim pilsētas domes ēkai. Šim nolūkam 1930. gada jūnijā tika demontēta un pārvietota uz tālāku vietu esošā Krievijas imperatoram Aleksandram II veltītā kapliča (1867), bet tās vietā tika iesvētīts pieminekļa pamatakmens.

20. gadu otrajā latgaliešu inteliģences aprindās bija dažādi uzskati par pieminekļa novietojumu. Tie tika aktīvi pausti avīzē “Latgolas Vārds”. Viens no uzskatiem bija novietot pieminekli Rēzeknes viduslaiku pilskalnā. Tomēr šī ideja atkrita. Bija uzskats, ka piemineklim jāatrodas ielas malā pie lielā Rēzeknes tilta. Bīskaps P. Strods, kurš bija pret pieminekļa celtniecību šajā vietā, rakstīja, ka tas būtu pārāk ikdienišķi un piemineklim nebūtu nekādas mistiskas nozīmes. Tas nespētu pievilkt grāmgājējus, jo “publika daudz lielāku vērību piegriež afišu stabiem, kā ielas piemineklim [...] ļoti vērtīgs mākslas darbs uz ielas paliek neievērots [...] ja piemineklim visādā veidā jābūt pie tilta, tad visattiecīgāk to būtu uzcelt varenas **arkas** (*izcēlumi* – V. M.) vai ļoti augsta **obeliska** veidā” (Strods, 1924b). P. Strodam bija arī priekšlikums pieminekli celt **augsta torņa** veidā ar tajā ierīkotu lielu pulksteni, bet torņa virsotnē novietot skulptūru “Brīvā Latgale” ar vārpu kūlīti rokā. Pieminekļa pakājē izveidot nezināmā kareivja, krituša par Latgales atbrīvošanu, kapu un uguns altāri, kurā nepārtraukti degtu uguns. Strods uzskatīja, ka vienlaicīgi ar pieminekļa projektu jāizstrādā arī plānotā Tautas nama projekts, jo tie būtu saskaņojami vienā stilā (Strods, 1924a).

Kāds A. Tettters arī iestājās par **augstu torni**, kāds ir Svētā Marka laukumā Venēcijā vai pēc Seviljas katedrāles zvanu torņa (Giralda) parauga. Torņa iekšpusē būtu slīps, no akmeņiem veidots, klons pa kuru varētu uzkāpt torņa augšā, bet torņa vidū būtu ierīkojams lifts. Noslēgumā autors precizē, ka torņa izbūvē ir jāpieturas pie nacionālā stila, ierīkojot arī altāri ar svēto uguni, kura degtu īpašos gadījumos (Tettters, 1924).

Savukārt latgaliešu sabiedriskais darbinieks un politiķis Francis Kemps (1876–1952), uzsverot katoļticības nozīmi Latgalē rakstīja: “lielam masīvam granītā kaltam **krustam** ir jāpaceļas pār visu pieminekli, lai šis simbols Rēzeknes

augstākajā punktā, šosejas vidū pretim pilsētas valdei būtu redzams jau no tālienes” (Kemps, 1934).

Avīze “Jauno Straume” veltīja asu kritiku F. Kempa idejai, norādot, ka pat katoļu baznīcas garīdznieki nebūtu iedrošinājusies nākt klajā ar tika pārsteidzošu projektu: “Šis rēgs (*lielais krusts – V. M.*)” tad paceltos Rēzeknes augstākajā punktā, šosejas vidū, pretī pilsētas valdei. Varbūt Kemps to domā tik lielu, ka tā drausmīgā ēna apklātu visu Latgali?” (Vārōtōjs, 1934).

Tikai pēc dažādām peripetijām Latgales Atbrīvošanas pieminekļa celšanas komiteja 1934. gada jūnijā izsludināja pieminekļa projektu konkursu (Red., 1934a), kurā bija norādīts, ka piemineklim jābūt **figurālas kompozīcijas** veidā.

Pieminekļa idejiskais un vizuālais risinājums *Ideological and Visual Solution of the Monument*

Vēl pirms konkursa par pieminekļa projektu konkursa izsludināšanas pieminekļa metu (2. attēls) bija izstrādājis K. Jansons. Rīgas avīze “Jaunākās Ziņas” rakstīja, ka meta galvenā ideja ir “Latgales apvienošana ar pārējo Latviju” (Red., 1934c).



2. attēls. *K. Jansona pieminekļa mets* (Red., 1934c)
Figure 2 Sketch of the Monument by K. Jansons

Pieminekļa metā bija attēloti divi sakļāvusies sieviešu tēli. Tā kā viens no sieviešu tēliem, tas, kas simbolizēja Latgali, bija daudz mazāks, tad latgaliešu preses reakcija bija klaji kritiska. “Latgolas Vārds” rakstīja: “Otra sieviete daudz mazāka, sīkāka augumā, tās izskats ir bēdīgs un nabadzīgs. Viņa ir kā nobijusies, nožēlojami nošķukusi, raudādama glaužas pie krūtīm tai lielākajai. Uz mata tāda kā bārenīte – vārgulīte līdzās pie savas pamātes [...] Mākslinieka kungs ir iemiesojis visu baltiešu ideoloģiju attiecībā uz Latgali. Trūkst tikai “pamātei” žagaru saišķa, ar ko novicot “palaidnei Latgalei” muguru [...] izcelta tikai Latvijas baltijas daļa, bet Latgale pazemināta un noniecināta” (Kozlovskis, 1934).

Avīze kritiku veltīja ne tikai meta idejiskajam risinājumam, bet arī mākslinieciskajam izpildījumam: “Kas redzēja šo modeli, kokaini sastingušu, drukno, smago stāvu ar strupu zobenu rokā, ar mazo Latgali, piekļāvušos kā bērns pēc pēriena, kur nav pat postaments parādīts, tam ir skaidrs, ka neattaisnojami nemākulīgi un nolaidīgi tiek veidots mūsu brīvības pieminēklis” (Borbals, 1933).

Tika nosodīta **tautu meitas** motīva izmantošana topošajā pieminēklī. Tā “Latgolas Vārds”: “Latvijā sevišķi iemīļots pieminēkļu motīvs ir tautas meita [...] visas idejas latvieši – mākslinieki spēj iemiesot tikai tautas meitā. Tā ir uz Latvijas Brīvības pieminēkļa, tā ir uz Brāļu kapiem [...] tā ir uz naudas, tā ir uz zīmogmarkām [...]. Šis tautu meitu pielietošanas drudzis ir padarījis to par šablonu”. Tālā seko vēlējums: “Lai pasargā Dievs mūsu Brīvības pieminēkli no Latvijas mākslinieku šabloniskās tautu meitas. Latgaliešu garam šī tautu meita ir pavisam sveša” (Borbals, 1933).

Savukārt “Jaunō Straume”, iestājoties pret tautu meitas tēla izmantošanu, vēršas pret saviem oponentiem – katoļu garīdzniecību: “Sievietes kulta dievināšana pie mums ir kļuvusi par slimību. [...] Vai latviešu tautas raksturā nav nevienas vīrišķības iezīmes? [...] Mums taču visiem skaidri zināms, ka sieviete Latgalē ir uz daudz zemāka garīgā līmeņa nekā vīrieši. Sieviete Latgalē ir tikai viens tikums – mātes instinkts [...] Sievietes reliģiskais fanātisms, tautas attīstības bremsēšana ar [...] aklu vergošanu baznīckungu kastai – nekā nav pieņemams” (Vārōtōjs, 1934).

“Latgolas Vārds” nopublicēja F. Kempa ideju iekļaut pieminēkļa ansambli teju visus iespējamus simbolus. Šādi Kemps ieteica papildināt pieminēkļa saturu, kura domināte bija lielais **krusts**: “Krusta pakājē varētu novietot četras bronzas figūras: priekšējā pusē bruņots ar zobenu un vairogu **karavīrs**, vai tautas un brīvības sargs, tad pārējās trijās pusēs šādas figūras: **arājs**, kā mūsu zemes galvenais kultūras simbols, **sieviete-sprēdēja** ar ratiņu, kas simbolizētu mūsu sievietes darbību tautas apģērbu izgatavošanā un tad, lai pastrīpotu to svarīgo momentu, ka mūsu latgaļu tauta savu valodu un nacionālo garu izglāba tikai ar mātes gādību, kura jaunajai paaudzei, bērniem stāstīja pasakas, dziedāja dziesmas un, drukas spaidu laikos, no pātaru grāmatas mācīja rakstu gudrību, varētu novietot krēslā sēdošu **vecās mātes** figūru ar bērnu pulciņu apkārt” (Kemps, 1934). Kemps arī ieteica zem visām šīm figūrām iekalt tautas dainu tekstus latgaliski, atbilstoši figūru saturam. Turklāt, uzsverot valsts vienības ideju, pieminēkļa ansambli varētu papildināt ar bareljefā veidotiem Latvijas provinču četriem ģerboņiem.

1935. gadā 13. oktobrī Latgales Atbrīvošanas pieminēkļa komiteja, kuras priekšsēdētājs bija, tolaik arī tautas labklājības ministrs, Vladislavs Rubulis (1887–1937), pieņēma galīgo lēmumu par pieminēkli. Jāatzīmē, ka kā ekspertus komiteja bija pieaicinājusi tēlnieku Kārli Zāli (1888–1942) un Latvijas Mākslas akadēmijas profesoru Konstantīnu Rončevski (1875–1935). Kopumā uz konkursu

tika iesniegti 22 pieminekļa projekti un ārpus konkursa bija iesūtīts K. Jansona projekts. Izvērtējot labākos projektus (3. attēls), komitejas žūrija pirmo godalgu piešķīra Latgalē (Ludzā) dzimušajam Mākslas akadēmijas studentam L. Tomašickim. Savukārt pieminekļa izveidošana tika uzticēta K. Jansonam (skat. apakšnodaļu “Pieminekļa nozīme un raksturojums”).



3. attēls. *Latgales Atbrīvošanas pieminekļa projekti* (Red., 1934b)

Figure 3 *Latgale Liberation Monument Projects*

Secinājumi Conclusions

- Piemineklis “Vienoti Latvijai” ir viens trijiem monumentiem Latvijā ar kopēju nacionālu un vēsturisku nozīmi. Diskursi par pieminekļa veidu, idejisko un vizuālo risinājumu latgaliešu presē tika uzturēti vairāk kā 10 gadu garumā. To lielā mērā sekmēja arī vienota koncepta trūkums par pieminekļa dominējošo ideju: Latgales atbrīvošanas ideja; Latgales apvienošanās ar pārējo Latviju ideja; abu ideju sintēze.
- Jautājumā par diskursiem latgaliešu presē par pieminekļa koncepciju jāņem vērā vēsturiskais mantojums – Latgales reģiona savdabība, kā arī kopējās nacionālās apziņas trūkums Latvijas latviešu vidū 20. gadsimta 20. gados.
- Diskursu tematiku, saturu un pielietotos lingvistisko paņēmienus ietekmēja arī tas, ka latgaliešu inteliģence bija idejiski sašķelta – vieni pārstāvēja klerikāli konservatīvo virzienu, citi – liberālo un sekulāro virzienu. Katram no virzieniem bija arī savas avīzes.
- Latgaliešu presē aktīvi tika apspriests pieminekļa veids. Dominējošā ideja bija celt pieminekli augsta torņa, obeliska vai arkas veidā. Pieminekļa celšanas komiteja nolēma, ka pieminekli veidos figurāla kompozīcija nevis arhitektoniskas formas.
- Kopīgais diskursu temats par pieminekļa idejisko vizuālo risinājumu bija tautu meitas motīva iekļaušanu pieminekļa kompozīcijā. Pret to

iestājās gan latgaliešu klerikāli konservatīvā, gan sekulārā prese. Atšķirības bija jautājumā par kristīgās ticības simbolu, sevišķi krusta, izmantošanu. Pret to asi iestājās sekulārā prese.

- Noslēdzoties konkursam par Latgales Atbrīvošanas pieminēkli, pirmo godalgu saņēma pieminēkļa projekts “Vienoti Latvijai”, kurā tika iekļauta ideja gan par Latgales atbrīvošanu, gan par Latgales apvienošanu ar pārējo Latviju. Pieminēkļa vizuālajā izpildījumā tautas meitas tēls tika sintezēts ar kristīgās ticības simbolu – krustu.

Summary

The monument “United for Latvia”, unveiled in the centre of Rezekne in 1939, is dedicated to the participants of the Latvian War of Independence (1918–1920), who took part in the liberation of Latgale from the Bolsheviks. From the historical and ideological point of view, the structure is considered to be a monument. In a broader sense, it symbolizes the whole Latgale, the liberation of the people from foreign powers, as well as the unity of Latgale with the rest of Latvia. Like the Freedom Monument and the Brothers' Cemetery memorial ensemble in Riga, the monument "United for Latvia" has a nation-wide and public significance.

The topicality of the study was determined by two factors: 1) the fate of the monument characterizes the fateful historical events in Latgale and the entire Latvia in the 20th century; 2) nowadays, the monument is a signature of Latgale, its image is widely used in booklets, souvenirs, on the covers of books and brochures, in advertisements, etc. Despite the significance and popularity of the monument, its history has been little studied. Before the monument was erected, there was a series of discourses on its concept in Latgalian press.

The aim of the article is to identify in the course of the exploration of Latgalian press publications the direction of the public opinion in the 1920s and 1930s on the discourses of what should be the ideological and visual appearance of the monument of the liberation of Latgale and its unification with the rest of Latvia.

The study is based on the historical approach to discourse and qualitative, comparative analysis of information. The study examines two topics of discourse: the choice of the monument site and the type of the monument; the ideological and visual solution of the monument.

Discourses on the type of monument, the ideological and visual solution have been held in the Latgalian press for more than 10 years. This was significantly facilitated by the lack of a unified concept of the predominant idea of the monument: the idea of liberating Latgale; the idea of uniting Latgale with the rest of Latvia; synthesis of both ideas.

The type of the monument was actively discussed in the Latgalian press. The predominant idea was to build a monument in the form of a high tower, an obelisk or an arch. The committee for the construction of the monument decided that the monument would consist of a figural composition instead of architectural forms.

The common aspect in the topics of the discourse on the ideological and visual solution of the monument was inclusion of the motif of a folk-maid in the composition of the monument. It was opposed by both the Latgalian clerical-conservative and secular press. There was a disagreement in the use of the Christian faith symbols, particularly, the cross. It was sharply opposed by the secular press.

At the end of the competition for the projects of the Latgale Liberation Monument, the first prize was awarded to the monument's project "United for Latvia", which reflected the idea of the liberation of Latgale and its unification with the rest of Latvia. The visual design of the monument, the image of a folk-maid was combined with the symbol of the Christian faith – the cross.

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STUDĒJOŠO PĒTNIECISKĀ PROJEKTDARBĪBA LĀZERAPSTRĀDES UN 3D DRUKAS TEHNOLOĢIJU PIELIETOŠANĀ TEKSTILDRĀNĀS

Research Activity of Students in the Application of Laser Processing and 3D Printing Technologies in Textile Fabrics

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Abstract. Nowadays education and research promote interdisciplinary cooperation and development. An interdisciplinary approach creates change and new opportunities for design education in general, while innovation, the use of advanced materials and technologies transforms design technology studies. These changes affect the development of design technology as an integrated interdisciplinary direction, the creation of innovative solutions, products and services in research design activities. This process is facilitated by research grant projects involving students and researchers. The performed experimental research in Rezekne Academy of Technologies (RTA) engineering research centres shows the possibilities of laser processing and 3D printing in textile fabrics design, promotes innovative technological solutions in product design and ensures the development of scientifically based results. The aim of the research is to improve students' independent research activities in purposeful project activities by interacting with various engineering research centers. Research methods used: theoretical - literature and Internet resource research and analysis, empirical - action (case study) research. Eight students of engineering/design study programs and four lecturers – researchers - participants of grant projects - participate in the research. Research period 2017–2020. The research has a practical significance, because it substantiates the interdisciplinary experimental research activity process and results, determining of students' independent research activity improvement direction, promotes the transfer of research results into practice.
Keywords: 3D printing, laser technologies, projects, independent research activities, textiles.

Ievads

Introduction

21.gs izaicinājumi, kas veicina daudzveidīgo industriālo digitālo risinājumu strauju attīstību, liek mainīt izpratni un pieeju studiju procesā. Augstākās izglītības attīstības perspektīvas dizaina tehnoloģiju jomā ir saistītas ar nozīmīgu aspektu, proti: studējošo neatkarīgu, patstāvīgu pētījumu aktivitāšu atbalstīšanu, kuru mērķis ir ilgtspējīgas motivācijas veidošanās personīgai un profesionālai attīstībai, pētnieciskās kompetences pilnveide. Pētniecības projekti, kas saistīti ar

dizaina tehnoloģiju jomu var dot studentiem - pētniekiem iespēju mācīties, iedziļināties, izprast tehnoloģiju nozīmi mūsdienīgas sabiedrības attīstībā, produktu dizainā, izprast savus profesionālos mērķus.

Inovācijas, progresīvo materiālu un tehnoloģiju aktualitāte un pieejamība transformē/rada pārmaiņas dizaina tehnoloģiju studijās tieši pētniecības aspektā. Tās ietekmē dizaina tehnoloģiju kā integrētas starpdisciplināras nozares attīstību, jaunu produktu/pakalpojumu radīšanu. Eksperimentāla pētnieciska projektdarbība ir viens no faktoriem, kas veido topošā dizainera pētniecisko kompetenci. Tas ir mērķtiecīgs process, ilgspējīgas motivācijas attīstība personīgai un profesionālai pilnveidei, turpmākās profesionālās darbības aktivitāšu īstenošanai, lai sekmētu atbilstību esošajai situācijai un izglītības prasībām.

Metodoloģija *Methodology*

Pētījuma mērķis ir pamatot studējošo patstāvīgas pētnieciskās darbības aktivizēšanu mērķtiecīgā projektdarbībā, mijiedarbības apstākļos ar dažādiem inženierzinātņu pētnieciskajiem centriem, parādot pētniecības rezultātu pārnesi praksē.

Pētījuma metodes: teorētiskās – literatūras, avotu analīze, empīriskās – darbības (gadījuma) pētījums.

Pētījuma jautājums: Vai un kā pētniecības grantos veiktie eksperimenti un piemērotās tehnoloģijas sekmē studējošo patstāvīgo pētniecisko projektdarbību?

Pētījuma bāze: 8 studiju programmu „Apģērbu dizains un tehnoloģija”, „Dizains”, „Lāzertehnoloģijas” studējošie un 4 docētāji – projektu dalībnieki.

Pētījumu veikšanas periods 2017.-2020. gads. Realizēti 4 Rēzeknes tehnoloģiju akadēmijas (RTA) zinātniskā granta projekti dizaina tehnoloģiju jomā, kas saistīti ar tekstildrānu lāzerapstrādes un 3D drukas iespējām. Tas ir mērķtiecīgs darbs studējošo patstāvīgu pētniecisko aktivitāšu atbalstam, kas nodrošināts sadarbībā ar RTA fizikālo procesu un lāzertehnoloģiju (FPLP) un metālapstrādes un mehatronikas (MM) pētniecisko centru pētniekiem, veikti tekstildrānu lāzerapstrādes pētījumi, izmantojot marķēšanas, gravēšanas un griešanas paņēmienus un 3D drukas pētījumi uz tekstila.

Darbības (gadījuma) pētījuma principi pamato procesa norisi, lai sekmētu reflektīvu pētniecisko vidi, eksperimentālā pētnieciskā projektdarbībā. Dalībnieku interviju saturs ir strukturēts, ietver 10 jautājumus, datu apstrāde – dalībnieku interviju kontentanalīze nodrošina pētnieciskās projektdarbības rezultātu izvērtējumu.

Literatūras apskats *Literature Review*

Pētniecības produktivitātes palielināšanai ir pievērsta liela uzmanība universitātēs visā pasaulē (Belavy, Owen, Livingston, 2020). Kopumā studentu pētnieciskā darbība sekmē profesionāla veidošanās procesa izpausmes: radošā darbība, gatavība domās pārveidot subjektīvos atspoguļoto objektu attēlus, to nozīmi reālu pretrunu risināšanai, jaunu mērķu, līdzekļu un plānu atklāšanai, to sasniegšanai; spēja atrisināt problēmsituācijas, kurās nepieciešama aktīva apstākļu maiņa, atbilstoši konkrētai situācijai. Patstāvīgā zinātniskā pētījuma procesā students iegūst iespēju atrisināt visneierastāko uzdevumu, izmantojot neparastus veidus, kā spriest, izmantojot viņam iepriekš nezināmas metodes (Lipskaya, 2006). Pētījumā pierādīts, ka studenti, kuri aktīvi izstrādā savas mācību stratēģijas un pēc tam aktīvi organizē un pielāgo savu mācību uzvedību, izrādās ievērojami veiksmīgāki nekā “pasīvie izglītojamie” (Abel, 2002).

Pētījumā (Mizell, 2010) formulēti rādītāji profesionālai attīstībai:

- pozitīvas motivācijas klātbūtne, kuras pamatā ir studentu zināšanu apguves neatkarības izpausmes, vēlme saņemt gandarījumu par pētījuma procesu un tā rezultātiem;
- neatkarības izpausme, kas atspoguļojas spējā plānot, organizēt savu darbību, domāt un rīkoties patstāvīgi;
- spēja apgūt jaunas zināšanas, tehnoloģijas;
- indivīda pašizpausme dažādās pētījumā iegūto rezultātu prezentācijas formās;
- profesionālo zināšanu kvalitatīvais līmenis;
- radošās domāšanas izpausme, ko raksturo spēja vispārināt un abstrahēt;
- kognitīvo procesu, garīgo darbību, domāšanas formu ātrums, elastīgums, mobilitāte, daudzveidīga darbības pieredze;
- spēja nestandarta veidā modificēt, apvienot, mainīt savus pētniecības pasākumus;
- mērķu noteikšana, izvirzītā profesionālā/radošā uzdevuma izpildē, mērķtiecība;
- komunikatīvās kultūras un komunikatīvās kompetences prasmju klātbūtne;
- personiskās īpašības: iniciatīva, augsta pašorganizēšanās, centība.

Mijiedarbojas vairāki aspekti: pētījumu pozitīvā ietekme uz mācīšanos - pedagogi regulāri seko jaunajām metodoloģiskajām pieejām un nozares pašreizējām norisēm, kurām ir teorētiska nozīme; mācīšanās pozitīvā ietekme uz pētniecību - pētnieki uztur izpratni par nozari kopumā, palīdzot šaurāku pētījumu

tēmu konceptualizēšanai. Pētniekus stimulē studentu intereses un jautājumi (Breen, Lindsay, 1999).

Pētnieciskās darbības pamatā ir pētnieciskās prasmes. Pētījumā (Žogla, Ļubkina, 2020) analizēti prasmes un kompetences jēdzieni, to dažādā izpratnē. Plašāk izplatītākā *kompetences* definīcija un struktūra aptver zināšanas, prasmes un attieksmi; šinī struktūrā ir zināšanu aktualizēšana un konteksta interpretēšana, zināšanu apzināšana vispārējos jēdzienos vai likumībās un darītāja perspektīvā, prasmju pārņemšana jaunā situācijā izziņas uzdevuma vai problēmas atrisināšanai. Studiju procesā pētnieka kompetences sasniegšanu atvieglo un veicina atbilstīga veida izziņas darbība (praktiskā, mācību vai pētnieciskā), kas saglabā studiju pētniecisku raksturu no problēmu risināšanas studiju sākumā līdz autonomai pētīšanai kompetences līmenī. Nozīmīgi ir pētniecības prasmes un kompetences veidošanās pamata darbības raksturs un kompetences veidošanās secīgi posmi:

- *Problēmorientētas mācības/studijas (problem-oriented)* atbilst pakāpei, kad pētīšanas prasmes vēl ir fragmentāras; pamatā ir skolas pieredze, bet sastapšanās ar apjomīgu zinātnisku pētījumu ir jauns izaicinājums.
- *Pētīšanā balstītas studijas (research-based)* - pētīšanas prasme nav integrēta, tā ir instrumentālā līmenī, un students to var iemācīties pakāpeniski; tās veidošanās virza pētnieka atbildība un ieinteresētība. Prasme pētīt ir attīstībā, un tās pazīmes ir vērojamas uzvedībā, komunikācijā, žestu valodā.
- *Uz pētniecību orientētas studijas (research-oriented)* - gandrīz patstāvīga pētnieciska darbība, pētīšanas prasme stabilizējas un pāraug kompetencē, iespējama tās pārņemšana jaunā situācijā vai kontekstā. Uz instrumentālās prasmes pamata attīstās pētniecības kompetence un iegūst akadēmiska sasnieguma īpašības (spēja formulēt nozares attīstībai nozīmīgus secinājumus, formulēt teorētiskus vispārinājumus).
- *Pētniecisks studiju process (inquiry-based)* – stabilizējusies pētniecības kompetence izpaužas spējā izveidot mūsdienīgu pētījuma modeli.
- Pētniecības kompetence ir sasniegusi augstāko kvalitāti, un jaunais zinātņu doktors var gatavoties nākamajam – *eksperta* līmenim.

Pētījumi, kas ir daļa no profesionālās izglītības programmas, tiek popularizēti kā pamatprasmju topošajiem profesionāļiem. Tie tiek mācīti kā profesionāls līdzeklis prakses uzlabošanai. Iespējas, iesaistīt studentus zinātniskās izpētes projektos pie mācībspēka mentora un pielietot pētniecības zināšanas un prasmes reālās dzīves praksē, var palīdzēt studentiem nostiprināt un uzlabot pētniecības kursus apgūto, gūt pārlicību, pārveidot to par sniegumu (Unrau, Beck, 2004).

Studējošo patstāvīgas pētnieciskās darbības aktivizēšana mērķtiecīgā projektu darbā ir cieši saistīta ar pētnieciskās kompetences pilnveidi,

nepieciešamību un iespējām. Pamatstudiju līmenī var tikt aktivizētas, galvenokārt, pētīšanā balstītas studijas (*research-based*) un uz pētniecību orientētas studijas (*research-oriented*) un sekmēts tām atbilstošais pētnieciskās kompetences līmenis.

Lāzerapstrādes un 3D drukas tehnoloģiju piemērojamība tekstildrānās *Applicability of Laser Processing and 3D Printing Technologies in Textile Fabrics*

Sākotnēji varētu šķist, ka tehnoloģija un ilgtspējīga mode ir pretrunīgas, tomēr to izpēte rada sarežģītas simbiotiskas attiecības starp abām jomām. Tehnoloģijas būtībā ir galvenais faktors, kas ļauj ilgtspējīgai modei mūsdienās attīstīties. Tehnoloģiju loma ilgtspējīgas modes vidē ir sadalīta divās galvenajās jomās: ilgtspējīgu tekstilizstrādājumu, fiziskā un digitālā izpausme (Scaturro, 2008). Tekstilrūpniecības attīstībā pasaulē parāda nepārtrauktu jaunāko tehnoloģiju izmantošanu izejmateriālu un produktu izgatavošanas tehnoloģiskā procesa norisē, t.sk. tekstilmateriālu daudzveidīgas lāzerapstrādes un 3D drukas iespējas. Specializētos funkcionālos izstrādājumos nepārtraukti tiek pilnveidoti materiāli (funkcionējošai drānai piešķiramās īpašības) un apstrādes tehnoloģijas, kas nodrošina jaunu uzlabotu produktu izstrādi un esošo produktu izgatavošanas tehnoloģisko iespēju pilnveidi, piemēram, ražošanas procesu digitalizāciju (Mizuno, 2014), izmantojot datorizētas programmas, lai izveidotu vēlamu objektu. Pētījums (Burke, Sinclair, 2015) parāda tehnoloģiju ietekmi modē un tekstilrūpniecībā, procesu integrāciju un globalizāciju, ilgtspēju kā pamatu jauniem materiāliem un procesiem.

Lāzertehnoloģijas iespējamie tekstila apstrādes procesi tiek pētīti, kā alternatīva tradicionālajām metodēm, analizējos tās priekšrocības (Mahrle, Beyer, 2009); lāzerstara iedarbība uz denim pētīta, veidojot dažāda izmēra attēlus, ar dažādas intensitātes lāzerstaru (Ondogan et al., 2005), datorkontrolēts attēls, ar vairāku nokrāsu variācijām tiek panākts, izmantojot atšķirīgu lāzerstara iedarbības intensitāti, viļņa garumu, virsmas iedarbības laukumu, tas palīdz atveidot identisku dizainu izstrādājumiem sērijveida ražošanā, metode nerada nodilumu un drānas struktūras deformāciju. Pētījumā (Kan, 2014) rūpīgi kontrolēti apstrādes parametri, CO₂ lāzerapstrādē ir efektīvs alternatīvs līdzeklis, lai *denim* drānās iegūtu krāsu izbalēšanas efektu. Pētījumā (Nayak, Padhye, 2016) norādītas marķēšanas priekšrocības: ātrums, augsta precizitāte un skaidrs, izturīgs marķējums uz dažāda veida un cietības materiāliem, pielieto apģērbā, ādā un metālos.

3D druka - "3D objektu izgatavošanas process no digitāla faila", izveido reālu, 3D, objektu, izmantojot secīgu diskrētu slāņu uzklāšanas metodi. Drukas objekts tiek izveidots, klājot vairākus 2D slāņus, kuri ir šī objekta horizontāli

šķērsriezumi. Dizaina 3D realizācijā nozīmīga dizainera zīmētā attēla izpilde no skices digitālā formā, izmantojot CAD (Computer-Aided Design) programmatūru (Ramiscat, 2016); jauna 3D apģērbu drukas iespēja, bez vīļu šūšanas, tekstūras un raksta pārtrauktības (Lu et.al., 2017). 3D druka ir ātrāka un izmaksu ziņā izdevīgāka metode prototipu izgatavošanai no 3D datorizēta dizaina (CAD) rasējumiem, tā sniedz būtisku pārskatu par vispārējo izstrādājuma dizainu un ražošanas procesu (Noorani, 2017). 3D drukas tehnoloģijai ražošanā ir pārsteidzošas priekšrocības salīdzinājumā ar tradicionālajām metodēm: rentabilitāte, dažādu produktu biezumu ģenerēšana, 3D arhitektūras izveide, dizaina vienkāršība un tajā pat laikā detaļu sarežģītība (Behroodi, Latifi et al., 2020). Tehnoloģijas izmantošana pieaug vairākās nozarēs, tostarp modes industrijā. Tā rada paātrinātu projektēšanas procesu, mazāku ražošanas laiku un zemākas izmaksas, kas saistītas ar noliktavu pārvaldību, produktu iesaiņošanu un transportēšanu (Wahl, 2019), (Vanderploeg, Lee, Mamp, 2017). Drukā attīstība ir paplašinājusi materiālu pieejamību un uzlabojusi izdruku kvalitāti (Shah, et al., 2019). 3D druka tieši uz drānas uzlabo virsmu, maina izskatu vai papildina to ar jaunu dizainu, atklājot iekausējuma efektu. Dažām drānām un izdrukām pamatnei var būt nepieciešams vairāk nekā viens slānis. Eksperimentos katrai drānas un apdrukā kombinācijai var būt savas prasības, lai drukāšanas laikā drāna neizkausētos. Druka tieši uz drānas sniedz iespēju inovācijām, vienlaikus izpētot resursefektīvu radīšanas metodi, un drānas rotāšanu ar 3D drukas tehnoloģiju (Wahl, 2019). Pieeja 3D printeriem ļauj izpētīt ražošanas procesu, eksperimentāli pārbaudīt šīs tehnoloģijas iespējas. Tiek veikts liels skaits eksperimentu, lai noskaidrotu piemērotākos parametrus un materiālu saderību.

RTA pētnieki ir veikuši tehnoloģiju aktualitāšu apskats un iegūti eksperimentālās pētnieciskās darbības rezultāti dabīgās, mākslīgās ādas, jauktšķiedru drānu lāzerapstrādei (Angelova, Lazov, Mezinska, 2017), (Narica et al. 2019), kā arī veikti 3D drukas un tekstildrānu mijiedarbības pētījumi (Mezinska et al., 2020).

Studējošo pētnieciskās projektdarbības rezultāti *Experimental Research and Results*

RTA realizētie zinātniskā granta projekti: „Starpdisciplināri pētījumi lāzerapstrādes (lāzergravēšanas, lāzergriešanas) tehnoloģiju pielietojumam tekstilmateriālos”, “Lāzertehnoloģiju izmantošana inovatīviem risinājumiem tekstila un ādas izstrādājumos”, "3D drukas tehnoloģiju izmantošana tekstilizstrādājumu dizainā", “3D printēšanas tehnoloģiju izmantošana ortožu prototipu izgatavošanai”, ar mērķi izstrādāt zinātniski pamatotus paņēmienus lāzerapstrādes un 3D drukas tehnoloģiju funkcionālai izmantošanai tekstildrānās, detaļu, elementu, izstrādājumu, produktu pirmparaugos.

Projektu norises posmi, to saturs tiek strukturēts atbilstoši eksperimenta rezultātu ieguves nosacījumiem un darbības (gadījuma) pētījuma principiem (skat. 1.tabulu).

1. tabula. *Pētnieciskās projektdarbības struktūra*
Table 1 *Structure of the Research Activity*

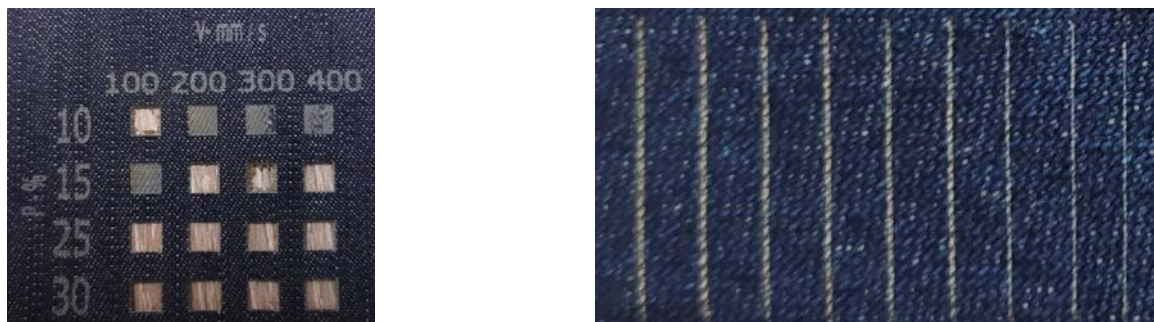
Pētnieciskais posms	Projektā veicamās darbības
Konceptuālais	Mērķa un uzdevumu noteikšana
Konstatējošais	Situācijas analīze, esošo pētījumu apzināšana
Pētnieciskās darbības	Eksperimentālās darbības process
Rezultātu analīzes	Optimālo parametru noteikšana, pārbaude
Prezentācijas	Rezultātu paziņošana

Sadarbībā ar pētniecisko centru pētniekiem, ir veikti secīgi eksperimenti tekstila lāzerapstrādei un 3D drukai. Lāzerapstrādē, kā galvenie CO₂ lāzersistēmas parametri, tiek ņemti vērā, lāzera jauda (P, W), skenēšanas ātrums (v, mm/s) un līniju solis (dx, mm), marķēšanas rezultāts ir nelielas materiāla virsējās kārtas izmaiņas, gravēšanas procesā tiek noņemta kārta vai kārtas no virsmas, griešanā veidotas griezumlīnijas. Iedarbība dažādās tekstildrānās ir atšķirīga, ne vienmēr dodot gaidīto rezultātu, arī marķēšana uz viena veida tekstildrānas ir ar atšķirīgu rezultātu. Svarīgas ir materiāla īpašības, raksturlielumi, lāzersistēmas, apstrādes parametri. Lāzerapstrādē iegūti sekojoši rezultāti konkrētiem tekstildrānu paraugiem, veicot optimālo parametru noteikšanu:

- 1) lāzerparametru iedarbības ietekmes (jauda, skenēšanas ātrums, skenēšanas solis) izpēte uz marķējuma kvalitāti un drānas īpašībām;
- 2) lāzerstara iedarbības uz materiālu dziļuma izpēte;
- 3) marķējuma kontrasta izpēte, atkarībā no izmantojamās drānas krāsas un šķiedru sastāva (kokvilnas, jauktšķiedru);
- 4) vektoru un rastra lāzerstara skenēšanas paņēmieni izmantošanas marķēšanā ar divu veidu lāzeravotiem izpēte (CO₂, UV lāzeri);
- 5) griezuma kvalitātes izpēte, atkarībā no izmantojamā materiāla krāsas un veida, sastāva (jauktšķiedru drāna, membrāndrāna, dabīgā, mākslīgā āda);
- 6) tekstilmateriālu valkājumizturības pētījumi atkarībā no konkrētiem lāzerapstrādes iedarbības parametriem;
- 7) eksperimenta rezultātu analīze un salīdzinājums ar teoriju.
- 8) specializēto funkcionālo izstrādājumu pirmparaugu izgatavošana.

Kā gadījuma izpētes piemērs, M.Spruktes eksperiments: *denim* drāna tiek pētīta un pielietota rakstu, attēlu izveidei, meklēti optimālākie lāzerapstrādes parametri, lai tie atbilstu vēlamajam rezultātam – jauda P (%) no 10 – 30 % un ātruma v (mm/s) no 100 – 400 mm/s, parametru testēšanas paraugs *denim* drānai,

solis 0,3-0,5 mm gan rastra, gan vektorapstrādē, dažādojot līniju biezumu; ātrums 110 mm/s; eksperimenti ar jaudas diapazonu no 9,1 – 9,9 %. (skat. 1., 2. att.). Rezultāts paredz arī maketa un pirmparauga izgatavošanu.



1.attēls. Drānas testēšanas rezultāti
Figure 1 Fabric Testing Results



2.attēls. Raksta motīvs un marķējums rastra un vektorapstrādē
Figure 2 Drawing Motif and Marking in Raster and Vector Processing

3D drukas tehnoloģijas izmantošanā iegūti sekojoši rezultāti:

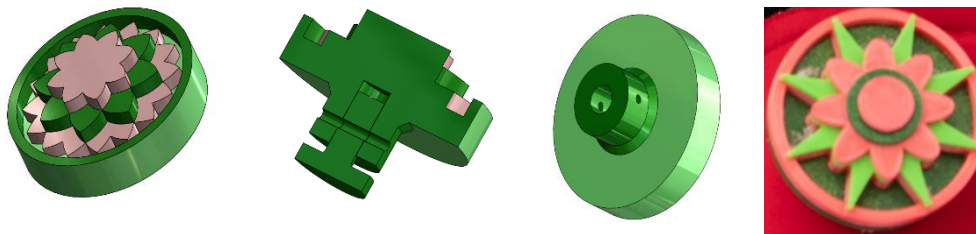
- 1) detaļu/furnitūras projektēšana CAD/CAE programmās (printējamo detaļu rasējumu sagatavošana, ievērojot pieejamos izmērus printēšanas laukumam);
- 2) elastīgu detaļu/furnitūras 3D printēšana uz konkrētiem tekstildrānu paraugiem;
- 3) elastīgo detaļu/furnitūras piemērotāko pēcāpstrādes paņēmieni izpēte un mehānisko īpašību testēšana;
- 4) piemērotāko veidu un tehnoloģisko paņēmieni risinājumi tekstildrānu un 3D drukas detaļu savienošanai uz konkrētiem tekstildrānu paraugiem;

- 5) tekstilizstrādājumu ar 3D drukas detaļu pielietojuma funkcionalitātes aprobācija.

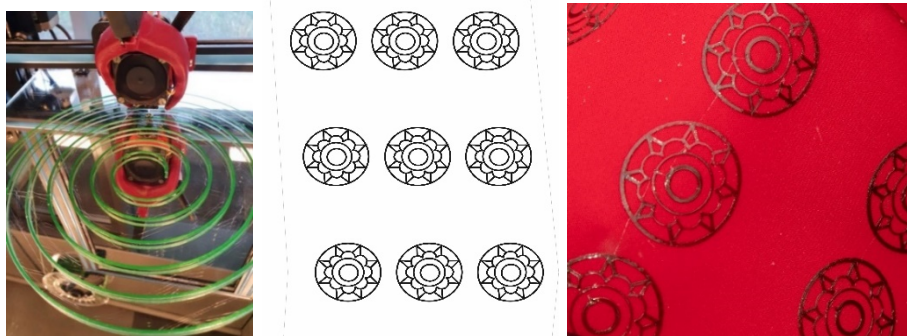
Kā otrs gadījuma izpētes piemērs, I. Unzules eksperiments: 3D drukātas furnitūras un ornamenta izstrāde divslāņu trikotāžas drānai ar neoprēna starpslāni, kas paredz arī dizaina izstrādi - piemērotākā zīmējuma un krāsu salikuma dizains, kā arī maketa un pirmparauga detaļu 3D druka (skat. 3., 4., 5. att.).



3.attēls. *Furnitūras skiču varianti krāsās un grafiskais ornaments*
 Figure 3 *Furniture Sketch Variants in Colors and Graphic Ornament*



4. attēls. *Furnitūras(pogas) 3D makets un pirmparaugs*
 Figure 4 *Furniture (buttons) 3D Layout and Preliminary Sample*



5. attēls. *Ornamenta grafiskais attēls un filamenta druka uz tekstildrānas*
 Figure 5 *Graphic Image of the Ornament and Printing of the Filament on a Textile Fabric*

Pētījuma rezultāti apkopo piemērotāko veidu un tehnoloģisko paņēmieni izpēti tekstildrānu un elastīgo, 3D drukāto elementu savienošanai, to pārnesi praksē.

Docētāji/pētnieki, izvērtējot studējošo sagatavoto esošo nozares sasniegumu analīzi par tehnoloģiju lietojumu, kas nepieciešams turpmākam eksperimentālam procesam, pētījuma rezultātu nodrošināšanai, optimālo parametru, metožu izvēles nosacījumu noteikšanai, sniedz konsultācijas, rekomendācijas tehnoloģisko paņēmieni izmantošanai, optimālu rezultātu ieguvei. Nozīmīgākās: sagatavotība darbam, procesa izpratne; izvirzāmo prasību konkretizācija; darbības posmu struktūra, lai izvairītos no neprognozējamiem rezultātiem; eksperimenta praktisko rezultātu analīze, atbilstības teorijai novērtēšana.

Studējošo pētnieciskā projektdarbības rezultāti pamato uz lietotāju virzītu pētniecību, nodrošina līgumpētījumu izpildi, kas paredz risinājumus specializēto funkcionālo izstrādājumu izgatavošanas tehnoloģisko iespēju uzlabošanai un sekmē pētījuma rezultātu praktisku izmantošanu. Daļa pētījuma rezultātu izmantota studējošo noslēguma darbos, izstrādātos modeļu/kolekciju dizainparaugos.

Secinājumi *Conclusions*

- Lāzerapstrāde un 3D druka ir videi draudzīgāka ražošana, tāpēc šo tehnoloģiju apguve, izpēte un izmantošana ir joprojām aktuāla. 3D drukas un lāzerapstrādes tehnoloģiju iespējas var izmantot, lai iegūtu dizainiski efektīvus un funkcionāli un inženiertehniski pilnveidotus produktus.
- Iegūtie pētījumu rezultāti un eksperimentālais materiāls izmantojams dizaina un inženierzinātņu studijās, parādot lāzerapstrādes un 3D drukas tehnoloģiskās iespējas tekstildrānās, pētījumu rezultātu pārnesi praksē. Materiāls palīdz studējošajiem projektēt un izgatavot līdzvērtīgus objektus ar tehnoloģiju piemērošanu, noteikt optimālākos parametrus, drukas temperatūras, objekta pēcapstrādes paņēmienus, risinot tehnoloģiski sarežģītākus uzdevumus.
- Projektu realizēšanas gaitā notiek veiksmīga sadarbība starp RTA pētnieciskajiem centriem, studiju virzieniem un programmām - studentiem, akadēmisko personālu, pētniekiem, tiek veikta zinātniski pamatotu rezultātu sagatavošana, līgumpētījumi.
- Empīriskā projektu daļa ietver veiktās eksperimentālās darbības rezultātus optimālo parametru noteikšanā tehnoloģiju pielietojumam tekstildrānās;

- Pētnieciskās darbības organizācijas rezultātu izvērtējums pamato efektīvu projektu īstenošanu, ievērojot strukturētus, secīgu posmus: konceptuālo, konstatējošo, pētnieciskās darbības, rezultātu analīzes un prezentācijas.
- Pētniecības projektu dalībnieku - studējošo patstāvīgā darba rezultāti pamato patstāvīgās pētnieciskās darbības kompetences attīstīšanos uz pētniecību orientētu studiju līmenī.
- Veikto eksperimentu, piemērojot 3D drukas un lāzertehnoloģijas, rezultāti studējošo patstāvīgā pētnieciskā darbībā iestrādāti 6 kvalifikācijas un 3 maģistra darbu dizainparaugos un prezentēti starptautiskajās zinātniskajās konferencēs.

Summary

The challenges of the 21st century contribute to the rapid development of diverse industrial digital solutions, leading to a change in understanding and approach to the study process. Prospects for the development of higher education in the field of design technologies are related to an important aspect: support for students' independent research activities. The aim is the formation of lasting motivation for personal and professional development, improvement of research competence.

Research projects related to the field of design technologies can give students - researchers the opportunity to learn, understand the importance of technology in the development of society, product design, understand their professional goals.

The aim of the research is to substantiate the activation of students' independent research activities in purposeful project activities, using 3D printing and laser technology application in textile fabrics, while interacting with various research centers, and showing the results of research grants in practice. Research methods: theoretical – literature and source analysis, empirical - experiment and data processing.

Research question: Do the experiments and applied technologies performed in research grants promote students' independent research project activities, and how? Increasing research productivity has received a lot of attention in universities around the world (Belavy, Owen, Livingston, 2020). The study (Zogla, Lubkina, 2020) describes the nature of the basic activity of research skills and competence development and the successive stages of competence development: problem-oriented studies; research-based studies; research-oriented studies; inquiry based research study process; research excellence has reached the highest quality.

Modern trends in the development of the textile industry in the world show the continuous use of the latest technologies in the technological process of production of raw materials and products, incl. various textile material laser processing and 3D printing options. The scientific grant projects implemented by RTA in the field of design technologies since 2017, involving the students in experimental research project activities, are purposeful work to support students' independent research activities. Research grants aim to develop science-based techniques for component/element/first sample, which are made using laser processing and 3D printing technologies, functional usage in textile design.

Experiments and applied technologies performed in research grants facilitate students' independent research activities and transfer results to designs: the achieved research results are incorporated in 6 qualification and 3 master's theses and presented at international student scientific conferences.

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GENERATIVE CREATING OF SACRAL SPACE: LATVIAN ANCIENT AND CONTEMPORARY PLACES OF WORSHIP

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Abstract. *The Balts received God's counsel and energy and regained health in energetically strong places but the Latvian worldview formed on the thousands of years was encoded in the Lielvārde belt, which is Latvian womenfolk costume's element. Bishop (1199–1229) Albert founded the town of Riga for the Riga Bishopric centre on the right bank of the Daugava. It was the four-part Riga Old Town semicircle divided by two main streets as the cross. Soon after the Great Fire in 1214, the construction of the Riga Cathedral began to create sacral urban space in areas of the Old Town and the New Town of Riga (in nova civitate Rige). Now, eastwards of Lielvārde, landscape artist Shunmyō Masuno from Japan has visualized the Garden of Destiny, where people obtain solace to the past, strength to the present and inspiration to follow dreams in the future. Through this set of relationships, architecture maintains the cosmological connection and dialogue with all the scales of the World. Research object: Latvian places for the worship of God. Research goal: analysis of Latvian urban sacral space. Research problem: common and different features of the sacral space of the Latvians and other nations have been little studied. Research novelty: detailed studies of generative design of sacral spaces and contemporary places of worship in Latvia. Research methods: analysis of archive documents, cartographic and urban planning materials, a study of published literature and inspection of sacral places in nature.*

Keywords: *architecture, evolution, generative language, human life quality, place of worship, sacral space, urban environment.*

Introduction

Latvian wisdom is based on the revelation of God and the creative exploration of the Universe. God is the foundation of all moral values and the origin of all events, and God is understood as the cosmic intelligence that through the laws of nature rules the Universe. God is one for all but where is this infinite God? God is everywhere: in the middle of the yard, on the side of the road, in the bushes by the road, behind the hill, even under the grey stone. Latvian folk songs, signs and symbols tell about the manifestation of God in the Universe, nature and man – about a unified vision, where God is a person's helper, travel companion and counsellor. In the Latvian understanding of God, man and God are united, because God's part in man is the soul. When a man dies, it returns to God in his

origin. One of the phenomena is the rotational movement. Each cyclic thing has its own beginning, middle and end, and any cyclic phenomenon starts at a point, spreads, expands and develops, then compresses, shrinks and disappears again at the point. Such picture applies to the life of one person (microcosm) and also the Universe (macrocosm) but the beginning and endpoints never coincide: they are always shifted in time. The cyclic motion in a flat two-dimensional world, or in the plane, occurs in a circle. The circle or cross that shrinks at a single beginning and end point loses dimension and disappears into a single background of consciousness. Our distant ancestors felt the rhythms of the Universe and nature in and around themselves. Dependence on nature prompted people to realize the sky – the Sun and stars. The first cosmological notions related to the cyclicity of cosmic and natural events were formed and expressed in forms that are equally numerical, geometric and aesthetic. The place of man in the Universe was realized. The idea of the symmetrical vertical three-part structure of the World was formed and the man was in its centre. Ancient religion affirms the unity of man and space, as well as the principle that characterizes the Indo-Europeans but especially the Balts, and it is related to the understanding of man's place in all events in God's World time-space. Perceived in time, the man also expressed the felt biological and social rhythms in material and space. The ancient Latvians arranged their homes as small, symbolic areas of the Universe. Spiritually mastered and arranged space combined micro and macro space. The Indo-Europeans and the Balts had a common understanding of sacred space characterized by the horizontal four-part structure of heavenly sides and the three-part vertical structure – heaven-earth-underworld. Constructive logic points to the possibilities of symbolic connection, influences and sometimes determines the sacred meaning, but in the sense of the unity of man and nature, and man and God, the principle of wholeness manifests itself, and it calls to perceive composition as a unified worldview. Man, society, nature, the understanding of the Universe and God, and space fit into a single system, where there is harmony, interaction and balance of all elements. The character of a Latvian has developed closely related to nature and historical conditions. One of the main values of the Latvian mentality is the sovereignty of the individual. A Latvian person is not conservative but is prudent. Prudence is also justified in the strategy: any new trend or impression from the outside is accepted only if it is real, true and understandable to the Latvian soul and complements the Latvian understanding of the World.

There are no high mountains and gigantic waterfalls in the Latvian landscape, and also there are no deserts and steppe plains up to the horizon. In Latvian nature, there seems to be no general degree and extreme contrast. Nature strives for proportionality and balance. Small plains are replaced by hills and forests. The water-rich rivers and many lakes, swamps, forests, as well as the Baltic Sea with its sandy coast, make the climate of the northern land mild and

temperate. Not every part of the globe has as much wealth as four different seasons. A unique phenomenon is that a large number of quite different microclimates and micro-landscapes can be found in a relatively small area of Latvia, and a great diversity of flora and fauna, which is rare elsewhere in the world, is also concentrated here. The environment has its own structure and its own mythical origin. There are many energetically strong places in Latvia: the positive energy is very well absorbed by water and concentrated by rocks and tectonic elements such as valleys, reliefs, cracks, caves, springs. In nature, everything is interconnected, including ancient Latvian shrines. In energetically strong places near rocks, sacred trees and groves, members of the Balts received God's counsel and energy, and regained health. Religious ritual was connected by concepts **the Place, the Way and the Symbol**.

In Europe, Pope of Rome and the Holy Roman Emperor started to spread Christianity, and ecclesiastical states or bishoprics and towns were founded on the Southern Coast of the Baltic Sea by the mid-12th century. Bishop (1199–1229) Albert relocated his residence to Riga in 1201, and the city became a site where generative creating of sacral space began, and each one can be able to contribute with own vision, own performing acts, own projects and own dreams.

Research problem: common and different features of sacral space of the Latvians and other nations have been little studied. **Research goal:** analysis of sacral space creating in Latvian urban environment. **Research methods:** analysis of archive documents, cartographic materials and projects of urban planning, a study of published literature, an inspection of sacral places in nature. This research is based on observation, descriptive and comparative methods of analysis.

The Early Architectural Development of Sacral Space in Latvian Urban Environment

The origin of Riga developed in the vicinity of the Riga Gulf was related to the Daugava-Dnieper Waterway, which was important for transit trade. It united the distant western and eastern lands. In the 10th to 11th centuries, only the Great Sand Road provided land transport on a peninsula protected from winds and floodplains: one branch led to the port created by a deep bay of the Riga River (*Riga rivus, flumen*), but the other – to the marketplace. There were wooden buildings in villages of the local population in which one village was on the right bank of the Daugava, but the other – at the mouth of the Riga River. In the 12th century, an international market was at Riga but five large groups of Livonian settlements formed an urban complex in the Lower Daugava area. Each of the centres had a hill-fort and several ancient towns. On a high dolomite rock on the right bank of the Daugava, where the Rumbaņa River flows, Dievukalns Hill has been populated by the Livonians of Lielvārde since the 9th century. An ancient

town developed at the foot. Eastwards of Lielvārde, significant traffic routes intersected in the central part of the Principality of Koknese. Centres in early administrative units created by the Latgalians around the year 900 were closely connected and did not exist in themselves. The political, administrative and economic centre of *Kukonoysē* (Latvian: *Koknese*; 11th–12th cent.) located on a dolomite rock between the Pērse River deep ravine by its estuary and the ancient bank of the spacious Daugava Valley opposite the 18-metres high river cliff of Staburags. The Latgalians, the Selonians, the Krivichs and members of other ethnic groups lived in an ancient town and practised in crafts and developed trade relations.

German merchants arrived at the local people Livonian-inhabited Baltic Sea coast to monitor the highway. In 1201, they began to form the Old Town of Riga covered by a street semicircle and divided into four parts. A wide street led to the waterfront, but on the other main street parallel to the Riga River, semicircle quarter took the bishop's first yard (1201–1215) with St. Mary (Latin: *ecclesia beate Marie*) Cathedral mentioned for the first time in 1206. Next to which the Livonian Brothers of the Sword created the yard. In towns founded by German traditions, churches for citizens' Catholic parishes were built. In Riga, on the hill at the crossroads of streets (Fig. 1), St. Peter's Church was built, but a marketplace and wooden living houses were built nearby. The Great Sandy Road from the marketplace went to the central gate and behind it provided Riga by road traffic. The Germans established centres of secular and spiritual power in Riga, political and economic dualism and the main military-economic base for expansion in the Baltics. Riga got an urban solution specific to Christians. The fortified Old Town of Riga had a layout similar to Jerusalem, where the *Cardo Maximus* crossed at right angles the *Decumanus Maximus*. The town of four-part layout acquired a functionally based scheme divided into quarters. Conquerors invaded one of the largest settlements on banks of the Daugava and the Livonian Brothers on the Latgalian hillfort built one of the first Riga Bishop's residences of dolomite – the castrum *Kukonois* (*Kocanois*; 1209) of irregular planning.

In the second stage of Riga's development by the year 1210, the back of the fortified small semi-circular town of the German immigrants has access to the Riga River. Soon after 1211, the city was extended to the Daugava. Outside the city wall, on 25 July 1211, Bishop Albert consecrated the building site of the monastery of St. Mary's Church. In 1215, a great fire broke out in the fortified Old Town. In the third stage of Riga's development until 1220, earth roads formed the basis for the street network in the city, whose centre building consisted of a monumental complex, but the concentration of three competing forces on a small plot of land proved to be problematic – armed conflicts turned out. Soon after the great fire, market place (later Town Hall Square) was created in the New City (*civitas nova*), which was first mentioned in documents in 1220. In the New Town

of Riga (*in nova civitate Rige*), the construction of the second cathedral and residence of the bishop began. Protective walls were no longer able to protect the city, and the expansion of Riga's borders became topical. The second protective wall around 1225 covered the suburb. In the enlarged city area, the fortified Old Town was also included. Riga ended in 1225 the stage of development in which the city gained formal autonomy. In Eastern Europe, Riga became an important Archbishopric and Christianity centre.

Assessing the European context, a common feature for the Riga Cathedral (Fig. 2), which became the main building in the Riga Archbishopric, in whose subjugation seven bishoprics got, was the ability to organize urban environment in an architecturally active way. A distinctive feature was the structural construction of the Christianity centre – mutual correlation between the Canonical Chapter and Bishop's Residence – two urban building structures, related to the cathedral. The building complex of the Riga Archbishopric Centre consisted of two yards – the bishop's yard with a perimeter building and the Canonical Chapter's yard with the monastery, in which the cathedral was included. The layout of the Riga Cathedral and monastery buildings were traditional: the cathedral with the tower, crowned by a slender spire, situated in the north, but monastery buildings – in the south.

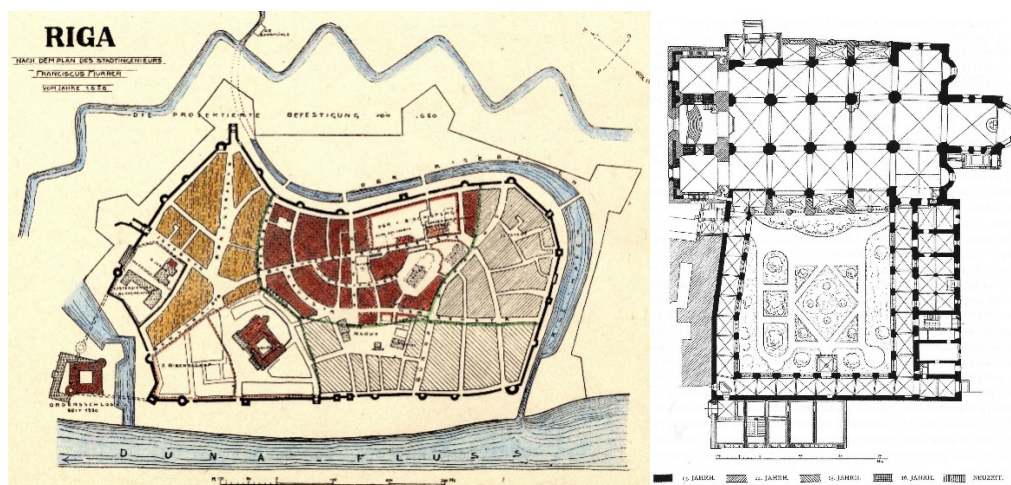


Figure 1 *Plan of Riga. 1650* (stored at the University of Latvia Academic Library, formerly Library of Misins)

Figure 2 *Architect Johann Wilhelm Carl Neumann (1849–1919). Plan of Riga Bishop's second Cathedral and monastery. 1912* (Neumann, 1912)

At the crossing of the Daugava Waterway and earth roads, the urban planning of the Old Town of Riga was defined by the cross of two main streets emphasized by St. Peter's Church for citizens' Catholic parish. The urban planning of the New Town of Riga created by two urban structures of the

Archbishopric Centre – the perimeter building of Riga Bishop’s second yard by sacral structures – reminded of the solution for Roman Bishop’s Residence on the Caelian Hill in Rome, and the building complex of Riga Canonical Chapter’s yard consists of the Riga Cathedral included in the monastery complex built according to the Cistercian monastery’s functional scheme developed by *Bernardus Claraevallensis*. The city’s central part was accentuated by the Riga Cathedral, in which planning and architectural solution in the course of construction were changed according to the latest trends in cathedral construction.

Around 1400, Riga as an important trade and crafts city in Eastern Europe, and the Archbishopric Centre had planning created by fortified yards of residences, trade and cult buildings close to city’s defensive wall. In the international market place, sacral space of the Christianity centre was connected by concepts **the Place, the Way and the Symbol**.

The Cosmology of Sacral Buildings

In the past, knowledge of earth energy used in church construction. The altar was made in a harmonious place where one feels well. On 25 July 1211, the place outside the city’s walls was consecrated, and construction of the Riga Cathedral (**Fig. 3**) on the bank of the Daugava River began. It was not possible to implement quickly the large-size pillar basilica in the newly founded Bishopric of Riga. The presbyterium and the transept of the Riga Cathedral were finished in 1220. After the cathedral was fully built, a Christianity centre was created to promote the discovery and spread of Christian values of Western Europe on the Baltic south-eastern coast.



Figure 3 Panoramic view of Riga Cathedral (online 28.02.2020, source https://www.arcers.lv/images/newnewscollection/sik_6.png)

Figure 4 Interior view of Riga Cathedral (online 28.02.2020, source https://upload.wikimedia.org/wikipedia/commons/4/42/R%C4%ABgas_Doms_%2874%29.JPG)

The Riga Cathedral of the Latin cross layout has the choir square and a semicircular apse, the eastern transept and a massive volume on the west side. The three-nave congregation room has four bays. Its planning is close to a square and creates outlines typical to a hall-type building (Fig. 4). Massive pillars of a cross-type planning mark borders between the middle nave and side naves. Buildings of an abbey locate at the end wall of the transept on the south side of the cathedral, and the square yard is surrounded by three cloister blocks. Presumably, on the west façade of the Riga Cathedral, there is the initial entrance with a semicircle covering. Nevertheless, the portal of the main entrance has been made on the north side. It could be related to the desire to make the church more accessible to the newly-founded city, to which the north façade of the Riga Cathedral was turned. The layout of the Riga Cathedral and monastery buildings is traditional: the cathedral with the tower, crowned by a slender, tall spire, located in the north, but monastery buildings – in the south. The Riga Cathedral is one of the oldest sacred buildings of the medieval period in Latvia and also the Baltics. During the Soviet occupation from 1939 to 1989, religious services were prohibited. The cathedral from 1959 to 1962 was adapted for playing music and used as a concert hall.

On 4 May 1990, the Declaration “On the Restoration of Independence of the Republic of Latvia” was adopted and the restore process of an independent Latvia began. A very short period before Latvian independence was restored, the singing of “*Dievs, svētī Latviju!*” /God Bless Latvia!/, banned during the annexation of Latvia by the Soviet Union, was restored on 15 February 1990 as the state anthem of Latvia. The music and lyrics in 1873 were written by teacher Kārlis Baumanis (also Baumaņu Kārlis; 1835–1905). With the restoration of the Republic of Latvia, the Cathedral of Riga in 1991 became available to the Latvian Evangelical Lutheran Church.

In January 1991, the central power in Moscow started military actions, to renew its influence in the Baltics. Latvia declared the restoration of independence from the Soviet Union a year earlier, anticipated that the Soviet Union might attempt to regain control over the country by force. In Riga on the evening of 20 January, the firing of the Interior Ministry started and continued in the Old Town. The people of Latvia gathered in Riga Cathedral Square located in the very heart of Old Riga. The Riga Cathedral for centuries has been the place where people have sought to meet God, and during the bloody events, it was open to anyone who seeks himself, seeks the truth, seeks God, seeks men community. People agreed on common prayer, cared for the wounded, placed the dead, and in the cathedral, an important holy place, the people and the divine world communicated between each other. Now the Riga Cathedral is not only the Evangelical Lutheran cathedral and the seat of Archbishop of Riga and Latvia and the parish church of Dome, but also the Place became the Simbol and where the Way to the restoration of independence of the Republic of Latvia began.



Figure 5 Orchestra at Riga Cathedral (online 28.02.2020, source http://muzikaspasaule.lv/images/News_Images/O/OrkestrisRiga/OrkestrisRigasDoma.jpg)

Figure 6 Choir at Riga Dome Cathedral (online 28.02.2020, source <http://www.palliative.lv/wp-content/uploads/2016/05/koris.jpg>)

Each cathedral is unique. Dr Nicolas Reeves and his colleagues David St-Onge, MSc, Ph. D at École Polytechnique de Montréal and Pierre-Yves Brèches McGill University used an interactive sound installation that transposes architecture of the Mende Cathedral into sound timbres and music, through a method using a mathematical object called “spherical harmonics”. It can be seen as a contemporary and poetic version of the harmony of the spheres, revisited in the light of current models from fields of music, acoustics and astrophysics (Reeves, 2017). Any architecture is as a small interpretation of cosmology, but the Riga Cathedral is an important sanctuary in the Baltics, and in it, orchestra plays compositions (Fig. 5), whose spiritual value corresponds to the status and traditions of this cathedral. Closely related to Riga is the name of Richard Wagner, who from 1837 to 1839 was a conductor at the Riga City Theater. The energy of the holy place maintained by Johann Sebastian Bach’s (1685–1750) spiritual melodies played on the cathedral organ providing the connection with the Heavenly world, as well as choral songs (Fig. 6).

Generative Creating of Contemporary Sacral Space

A Spanish surrealist artist Salvador Dalí (1904–1989) utilized his theory of “nuclear mysticism”, a fusion of Catholicism, mathematics and science, to create this unusual interpretation of Christ’s crucifixion. Dalí’s image of the crucified Christ (Fig. 7) represents the search for the transcendental or fourth dimension. Levitating before a hypercube as a geometric, multidimensional form Christ’s body is healthy and athletic and bears no signs of torture. The crown of thorns and nails are missing. The artist’s wife, Gala, poses as a devotional figure, witnessing Christ’s spiritual triumph over corporeal harm. Several dreamlike elements from

Dali's earlier surrealist work feature in this painting: a levitating figure, vast barren landscape and chessboard.



Figure 7 A Spanish surrealist artist Salvador Domingo Felipe Jacinto Dalí i Domènech (1904–1989). Crucifixion (Corpus Hypercubus). 1954 (online 17.05.2019, source: <https://collectionapi.metmuseum.org/api/collection/v1/iif/488880/1005811/restricted>)

Figure 8 Professor Jônatas Manzolli. Photo of the animated collage generated during the performance of the Ode (Manzolli, 2018, 177)

Professor of the University of Campinas (Brazil) Jônatas Manzolli gained a Degree in Mathematics (1983) and Music Composition (1987) from UNICAMP now studies Arts and Technology relationship in music creation. He is the coordinator of NICS – Interdisciplinary Centre for Sound Communication and special attention paid to the synthesis of architecture, art and music. His work includes instrumental and electroacoustic pieces, music for dancing and sound installations. A creative process of the Ode to Christus Hypercubus aided by computer involving music, images and poetry. The Ode to Salvador Dalí's Christus Hypercubus (Fig. 8) reported as a multimodal performance fulfils the sound space with alterations of sacred music. It consists of images and music that interacts with live musicians and a virtual choir in real time. A diffused acoustic field generated with fragments of sacred music invites the audience to rediscover and recreate meanings for the Catalan's masterpiece. The computer system orchestrates 16 compositions in miniatures called "stanzas of the Ode". The poem "Caminho da Espera" written by the author provides lyrics for excerpts from three sacred works: "Ave Maria Stella" by Perotin (1200–1225), a European composer who is believed to be French, "Benedictus" by Portuguese composer Frei Manuel

Cardoso (1566–1650) and “Sepulto Domino” by the Brazilian composer Father José Mauricio Nunes Garcia (1767–1830) who constructs the Medieval Organum as a metaphor of an imaginary echo that still has persisted in walls of cathedrals. A constant musical drone accentuates resonances in which memory is expanded into fragmented chants that still linger on walls and in arches. The idea is to simulate fourth-dimension Hypercubus using the audio signal to produce 3D transformations. The program extracts pitch and intensity from the audio signal and animates the four cubes in real time iteratively. Images are generated along with sounds in real time; see the visual result in images below. Using interactive techniques derived from computer-aided real-time composition, the Ode attempts to explore human cognition and understand how creativity operates in a multimodal environment. Multimodal generative installations can be seen as a way to create a unified experience where sound, image and audience are merged in space and evolve coherently in time and to explore both implicit and explicit cues in their individual and collective interaction and to boost interaction with audio-visuals generated during the man-machine interaction, as discussed in (Manzoli, 2018, 171). Sacral space, important for the spiritual growth and perfection of modern man, does not have any nationalities.

The aesthetically aggressive, over-urbanized, technology-influenced functional environment puts heavy psychological adaptation demands on people. A person as an integral part of nature and a person as an integral part of an artificial environment is in a deep internal conflict that can be solved by balanced action. The environment needs to be humanized. A person must change his attitude towards himself and nature. There is a need to change the current understanding and thinking of the world. In the age of globalization, human affection for a particular denomination is not emphasized.

In a generative process, poetic logic is the art of connection between a past and a future time, but the main procedure is to identify a performing aim as a character which is able to delineate an unstable system between imaginary and real constraints (Colabella, 2013, 108). We need a structure of connection, not deductive but abductive: the only one able to perform a nonlinearity following an interpretation (Colabella, 2015, 65).

“Nowadays, the world has very nice directions of church architecture development, determined by Scandinavians–Norse, the Swedes, the Finns. Combination of modern technology and design with a traditional or quite innovative space planning produce a solution with some original features, can become especially sacred, and create an atmosphere of reverence no worse than it has been for centuries. In the landscape of Finnland, churches surrounded by forest and the river bay often are seen, but even it is cut in the rock. I see the ability of modern Finnish architects to feel nature of their homeland, environment and culture very deeply, but at the same time – do not lose respect for the Christian

culture, the substance of which they try to put in modern architecture. In Australia, America and England, where congregations' material wealth allows you to attract the world well-known architects, I have seen postmodern, brilliantly luxurious worship spaces, what in expensive materials have got developed to refinement. In such cases, the congregation is aware goals, what puts it on itself – to create a material value that can also become symbolic, and about which the whole country would talk. This is the task of architecture – to create a step, on which the future architecture or the fashion wave would be the starting point. An example of post-war England architecture was the Nazi ruined, but now modern Coventry Cathedral," scientist, academician and Professor of the Art Academy of Latvia Dr Hab. Art. Ojārs Spārītis tells us. These are different orientations, among which Latvia is forced to carry out its search today. These searches take place among the Lutherans, the Orthodoxians and the Catholics. The Orthodox believers wear their traditional culture and that, what this confession was caused by the Soviet era and taken away (Spārītis, 2015, 190). Where to develop church architecture in Latvian Lutheran and Catholic space? Catholics in Latvia are open for experimentation; they are acting much and energetically and are not afraid to make mistakes (Spārītis, 2015, 193). I would like them to think before they made a mistake – could it not be avoided?

The Latvians, discovering the historical heritage, find interesting solutions to increase the informative emotional potential of the environment and the artistic expression of urban space to preserve identity. After World War I, in the Republic of Latvia, studies of ethnography, archaeology, history, geography and the development of settlements became topical. Dean of the Faculty of Architecture of the University of Latvia, architect Professor Eižens Laube (1880–1967), focused on Latvian material culture and architecture research because it was indispensable to develop architecture characteristic for Latvia. The essence of Latvia must be understood deeply and wide in order to build fits in Latvian peculiar physical and spiritual environment. There are very much but even conflicting manifestations of Latvian beauty: the definition of Latvian beauty is not and not be able a single.

On an island on the Daugava River, there is a place near the ancient town of Koknese where the past, the present and the future of the nation merge to give solace to the past, strength to the present and inspiration to follow your dream in the future. The architectural ensemble of monumental landscapes till the 100th anniversary of the Proclamation of Independence of Latvia on 18 November 2018 was created. Landscape artist Shunmyō Masuno from Japan in cooperation with "Japan Landscape Consultants" Ltd. and Latvian architects Andris Kronbergs and Raimonds Saulītis along with the design bureau "ARHIS" and the people of Latvia are all helping to implement a dream – the Garden of Destiny created for the memory of all the inhabitants whom Latvia lost during the twentieth century,

the ones who perished in wars, the repressed one and the ones who were forced to go to exile or suffered any other way due to their political views. The Garden of Destiny as a whole is like a symphony – it consists of the prelude and six parts, which symbolizes harmony and eternity of nature and the human being. Each part is divided into three zones, but each zone is related to its Time and Space. All in all, it symbolizes eternity. The first is the “Zone of Memory” which is orientated towards the past and consists symbolically of two parts. The first part “Promise” or “Silver Sunset” starts with a stone paving, followed by a water canal, or the River of Tears (Fig. 9), which flows along the external side of the stone layer and symbolizes victims’ tears and faith that what happened in the past will never ever recur. A monument hill made of 600,000 grey stones which were taken there by inhabitants of Latvia for their relatives and family remembrance. The sunset is not in the usual colour but rather grey – as a tragedy and emotional experience about what has happened. The central part has a bizarre-shaped pond with islands surrounded by man-made hills and valleys, along which travel routes are laid. To arrive in the heart of the Garden of Destiny, one has to let the river with its eternal and soothing water flow to find consolation. The second part is “Prayer” or “Light of Soul”. In the place where we pray so that what happened to us would never ever repeat again, one can watch the sunset in the evening. The second one is the “Healing Zone” dedicated to the future. The third zone is the “Destination – Latvian’s Heart”.

Plants are the flesh of any garden. In the Japanese garden, preference is always given to native species of trees, shrubs and grasses. The main structural tree is a pine – a symbol of happiness and longevity. Plants are often used as carriers of a symbolic load, closely related to spiritual and physical life. The garden teaches suchness or the intrinsic value of each thing, connectedness, harmony, tranquillity and sacredness of the everyday. Developing a sense of respect for all things is no small step in becoming an ethical human being, both with respect to other humans and the environment at large. A garden is not so much a place for pleasure, recreation or socializing, as a way to achieve a certain state of the human spirit, peace of mind and balance of consciousness. In the Japanese garden, preparation for it begins. Elements for landscape design are secondary to invisible philosophical, religious and symbolic elements – water, stone islands, plants and traditional small forms. Any element very rarely carries any additional, symbolic load, but then especially high aesthetic requirements are placed on it. The refined simplicity of things has the strongest artistic impact on the audience. A garden should occupy a large area in which we travel through time and space. In the garden, we do not walk but travel along roads and do not wander without a goal but move from place to place and from discovery to discovery. In Japan, time is always considered the co-author of the garden and the assistant designer. Develop a garden so that its beauty responds to the place and

course of time, as leaves respond with a breath of breeze so that there is nothing bulky and coarse in it. Instead of absolute dimensions, the consciousness and the subconsciousness are completely affected by the “three forces”: horizontal, vertical and inclined planes. We react to each of them in a completely different way: the horizontal is associated with the earthly expanse or a water mirror, with a calm, slow motion and, consequently, spiritual tranquillity. The vertical is the tension and energy needed to move up to the sky, but a clean, accented vertical is quite rare in a Japanese garden. The diagonal, or inclined plane, most often in form of an old tree, bent under the weight of years or slopes with stone debris and bistro running streams causes dynamic associations. The result of creative and hard work should look easy and at ease as a result of the work of the genius of nature and not of human hands.



Figure 9 Landscape artist Shunmyō Masuno. The model of the garden of destiny (online 02.08.2017, source: <http://www.alausa.org/media/files/infogram-sep-2015/liktendarzs.jpg>)

Figure 10 Photographer Uģis Nastevičs. The garden of destiny on the island in the Daugava River – a place near Lielvārde and the Castle of Koknese (online 02.08.2017, source: http://i9.tiesraides.lv/1200x0s/pictures/2016-07-25/2016-07-25_liktendars_ugis_nastevics.jpg)

The Garden of Destiny is a symbol, created in nature for constant renewal and growth of the nation – here the past, present and future of both the human and the state meet. An outstanding environmental architecture with nature of the island and beauty of the Daugava’s flow has been combined. The Garden of Destiny opened on 11 August 2018 gives joy on blue waters of the Daugava and changeable gradations of the sky (Fig. 10) (Ozola, 2018).

Italian architect, Professor Celestino Soddu considers that the city is a collective dream of which we don’t know the end but only as it is running. This city-Idea transforms itself in progress by building an urban identity and uniqueness that we can identify as a peculiar way of looking to the future (Soddu, 2016, 15).

Conclusions

1. Riga became the center of Christianity in the 13th century, a sacred environment was created, and its main building was a cathedral. Interior synthesized different kinds of art was man-made environment with cosmicelements for communication with God and prayer for dialogue with higher powers and religious ritual. This place, where the synthesis of architecture and art acquires perfection, is important for people to find peace, regain hope and faith.
2. The 21st century represents the active practice of generative creating of modern sacral space and represents a new step in the development of a specific sacred environment and design. A complex multistage process of collective creativity is characterized by a way of looking to the future. It makes a conclusion that the use of the artistic experience of the past is the leading tendency in the development of modern monumental sacral space. Nowadays, using the generative creating, latest technologies and international cooperation, the sacral space made up in Christian traditions is in the natural environment as well as in the urban environment. The generative creating of sacral space for religious ritual today also is connected by concepts **the Place, the Way** of spiritual growth and **the Symbol**.

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GENERATIVE CREATING OF SACRAL SPACE: MYTHOLOGY, COSMOLOGY AND PLACES FOR CULT RITUALS

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Abstract. Signs are an integral part of the existence of humanity. The Latvians have one of the most complicated symbolic sign system in the world—the Lielvārde belt which includes symbols of strong energy and encodes ancient information that characterizes the special relation to nature and the Universe. God is the basis of moral values and the origin of all events. The understanding of Latvian deities is based on creative thought, and each sign of the deity image is a structural whole with a certain informative value. The Balts' tribes for cult rituals chose energetically powerful places. Generative creating of sacral space and religious ritual is connected by concepts the Place, the Way and the Symbol. Research object: Latvian wisdom and spiritual traditions, sacral space for the worship of God. Research goal: analysis of the influence of the Latvian wisdom on traditions of the establishment of early places of worship. Research problem: common and different features of the sacral space of the Latvians and other nations have been little studied. Research novelty: detailed studies of generative creating of early places of worship based on Latvian mythology and cult ritual traditions of other nations. Research methods: analysis of archive documents and cartographic materials, study of published literature and inspection of sacral places in nature.

Keywords: evolution, generative creating, Latvian mythology, Latvian wisdom, red white Lielvārde belt, sacral space, system of geometrical signs.

Introduction

Every nation, in its historical times, similarly as its own language, also has its own honour and self-esteem or ethics based on the creative exploration of the Universe or the World and God's presence, nature and a person. God is the basis of moral values, the origin of all events everywhere and the causality of the whole beginning and the spiritual origin. God decides on the fate of the person, creates and expands the Universe, which principle of existence is the order of things and eternal changeability through constant creating and recreating. God, who comprehends cosmic intelligence, rules the Universe with the help of nature laws. Nature is alive, figurative and sacral for the Latvians and also the Balts. The presence and creativity of God is the soul – the common essence of all matters and the human being's eternal, timeless part associated with the centre of every process. God without the time and spatial dimensions always present as the

highest advice of advice and its creative thought cannot be discovered completely. God as the source and causality of everything, the World's soul and the guard of virtues and legal order is manifested in the World's four basic elements – earth, fire, water and air – and also four cardinal directions, east, west, north and south. Latvian wisdom is based on God's realization and the Universe creative cognition. Relationships with God are friendly. They are not relationships of a master and servant or master and slave. In Latvian folk songs, God, like an old, just dressed man similar to a farmer everywhere present among the people and encourages good things – works and thoughts. God brings blessings to the earth, to the people, sets the course of celestial luminaries, thinks, knows, allows, gives, helps, guards, protects, takes care, raises, develops the World, which is full of life forces. God is an infinite, all-bright and good representative, benefactor, giver of counsels, the former, the current and the almighty one. Everything is one. God is both spirit and matter. On an initial level, it is thought that soulful energy is the light. It gradually transforms into formations of material nature. God is united in the diversity of all its expressions and wholeness of His manifestations (Celms, 2016).

In God, all opposites are united – light and darkness, father and mother and good and evil. God just is, but one for everyone. Where does this infinite God lie? God is everywhere: in the middle of the yard, on the edge of the road, in bushes of the roadside, behind the hill, even under the grey stone. Latvian folk songs, signs and symbols tell about God's outcry in the Universe, nature and a person – for a unified vision, where God is a human helper, travelling companion, adviser. Every long way starts with the first step. The World connected with real life is creative, active, joyful. A person who is given the opportunity to gain happiness by serving good and morally to grow himself makes up his life (Celms, 2016).

The Latvian consciousness of God and the worldview formed on the thousands of years of Proto-Indo-European or Baltic external culture is encoded in the red white *Lielvārde* belt up to 270 cm long (Fig. 1) used as womenfolk costume's element of the Daugava River surroundings. The Latvian pattern created by 22 signs into different combinations (Fig. 2) has an overall organizing impact and principal functions – to arrange and informs about spiritual, physical and astral levels and special relations to nature and the Universe. Geometric signs arranged in ornaments (Latin: *ornamentum*) to decorate and to be decorated, and to pass the particular family's, people's or nation's wisdom and living skill to next generations are an integral part of the existence of mankind and a way of communication. One of the richest and most complicated systems of geometrical signs in its most ancient beginning similar to language is a natural phenomenon. It embodies possibilities of development in the future, the feeling code of the Latvians' life and tasks for art, environment, spirit. The united system of signs is described by structural oneness and the development from simplest to the most complicated. All signs develop and arrange according to this principle. This

system has to be looked like a set of cyclic motions, where signs are eternal mediators that provide communication or exchange information between the person and the natural environment and symbolize stages of different movements. Signs are able to provide much information as it is impossible to express in words. One sign changes into another moving into time and space. It is not only translated through another but also develops, grows and turns from one another. The same sign can appear in several places but with a different symbolical meaning. It complies with the universal essence of a sign's geometrical construction and symbol's polysemy: a sign is revealed through another sign but the image through another image. The strict construction of the system's internal links allows some complimentary variations and manifestations. Geometrical signs covers all levels of manifestation. Each view highlights one or a few qualities but does not exhaust the whole nature. Symbolic signs as the most laconic and ancient form of information do not have any nationalities and present spiritual reality, visible and invisible layers of our existence and connect polarities in one whole. Meanings of symbols have not disappeared in nonexistence. Everyone must rediscover itself, like the World, which is so wide, how wide is the human consciousness of its observer. Latvian cultural symbols by their powerful energy and protective magic encompass people's special connection with nature and the Universe. The base of Latvian god comprehension is creative thought. Latvian mental tradition has enriched the ancient heritage of European and world's culture (Ozola, 2017).



Figure 1 Photographer Normunds Grasis. Latvian womenfolk costume by the Lielvārde belt (online 07.05.2019, source: http://i7.tiesraides.lv/340x340s/galleries/epadomi_lv/4db002c61ab7a/2011-05-19_dsc8330.jpg)

Figure 2 Geometric signs in the pattern of the red white Lielvārde belt (online 24.02.2021, source: <https://www.egadatirgus.lv/pictures/scs-5f34da916e363.jpg>)

Everything in sign symbols starts with the smallest element of the pattern's structural construction. The first flash of consciousness in darkness is the smallest dot which as the beginning and the end of something symbolizes an individual object, thought, idea, impulse and also the light of the soul given to a human being

at birth. The source of light's energy manifests God's presence on every step and helps us to find the best solution. In Latvian folklore, the central and main light of the sky is the Sun. It is a symbol of eternal movement and life. The principal form of the Sun's Sign is rhombus or a closed circle with a marked centre. The circle with a dot in the centre symbolizes the Sun and the Universe, the beginning of the World from a bud and a nucleus and also the unity of the male and the female. In the Sun's Sign, concentric circles around the centres of the nucleus manifest the idea of radiation and pulsation and mark a new direction of motion – from the centre to sides and back to the centre, which is the beginning and the end of all events. In the language of symbolic signs, the World is marked by the circle which makes up the Sun's run: the upper semicircle symbolizes the day and this World, but the lower semicircle – the night and the Underworld situated in another dimension beyond borders of the visible world. In the centre of the circle, but in another dimension, is the Afterworld or the World of post-death, where God's supreme advice or the highest thought that is visible in the middle of any expression lives. The Way to the Afterworld passes through the Underworld. The World's motion life and death correlate as etiological and natural events of a big course. Every individual life finishes eventually in order to provide a place for another one: such is the natural law accepted by the Latvians in a deep understanding.

Extending the dot, a line is formed. The line can be positioned vertically or horizontally; it can also be slanted. Dots and lines can be crossed or grouped, supplemented with other dots and lines. This is how sign symbols are created. A little cross marks the centre of all activities where the World starts from. God's Sign is a cross with four equal-length branches, which can stretch out infinitely – similarly to the spiritual world that is infinite beyond all borders of the material world. The little cross with the dot or eye is a star. God's or Golden Cross has two different states of varied meaning: the straight or rigid cross is stopped energy, peace, non-creating state, darkness, death, immobility and rigidity, but the slanted or moving, also rotating cross, called the transverse cross, characterizes liberated energy, anxiety, life force, light, restlessness, creative position and the World's cyclic movement created by God – rotation, where life alternates death as logical and natural events. Straight God's Cross (Fig. 3) is the sign of the World's order which points to immobility and passivity and symbolizes the orientation of four kinds, centre, infinity, unity of material and ideal, as well as the timeless space – the World and also the Underworld. Slanted God's Cross (Fig. 3) is the sign of the World's order in the position that points to motion and symbolizes activity, dynamics, but at the same time preserving the World's orientation of four kinds, the symbolism of the material and ideal unity included into one sign. Slanted God's Cross as a solar sign – the Sun Wheel or Cross of Rays (Sun Cross, Solar Cross, or Wheel Cross) symbolizes the centre, infinity, the World's rotation

(Fig. 3), division of time and space into eight symmetrical parts, also combines life and death aspects set by God's order. Both crosses in one sign show the coexistence of this World and the Underworld and the cyclic change of light and dark and life and death. The Star's Sign on the border between this World and the Underworld preserves an open outline. Rays of the star coming out from the centre can continue infinitely. The Sun Wheel and the Star's Sign included in one sign symbolize the simultaneous existence of this World and the Underworld. During the day, the Sun moving in the sky is in the slanted cross position. In the evening it dies and is situated in the straight cross position. Duality is symbolized by the Sun Wheel included in the Sun's Sign which divides the circle into days and nights, good times and hard times, as well as a prediction about the Underworld in plans of another existence and temporariness of this World, emphasizing its cycle. Signs show the Sun's course strictly geometrical and symmetrical: the Sun in its circuit both appears and disappears. The Sun's Sign reflected as square, rhombus and a wheel since the Sun always rolls over the sky has gotten lots of extensions. The most common is the eight-pointed Sun, in which the rays symbolize eight times. The Sun's Sign with 12 rays directed to 4 sides symbolizes a year divided into 12 months. The Latvians have used the solar year as a measurement. The image related to the Sun's Way (Fig. 4a) is a personification of the Sun's rise and set (Fig. 4b). It also was called the Sun Tree (Fig. 5), World Bush, Little Oak Tree, Great Bush and Little Spruce. The Sun Tree called in other cultures also as the World Tree usually is an oak that symbolizes daily rhythm, the Sun's course and the World's order and reflects human preconceptions about the World (Fig. 6). Observing the Sun's course in the sky, annual celebrations have emerged. Rituals are performed, walking the Sun's direction (clockwise). The circle marks the demarcation idea of the internal and the external world, fight between light and darkness and defence of good (Celms, 2016). Religious ritual is connected by concepts of **the Place, the Way and the Symbol**.



Figure 3 Crosses of stars: signs of the World's beginning and further development – beginning or the centre, a cross with four branches, the straight cross, the slanted cross and the rotation or moving cross (Celms, 2016, 34)

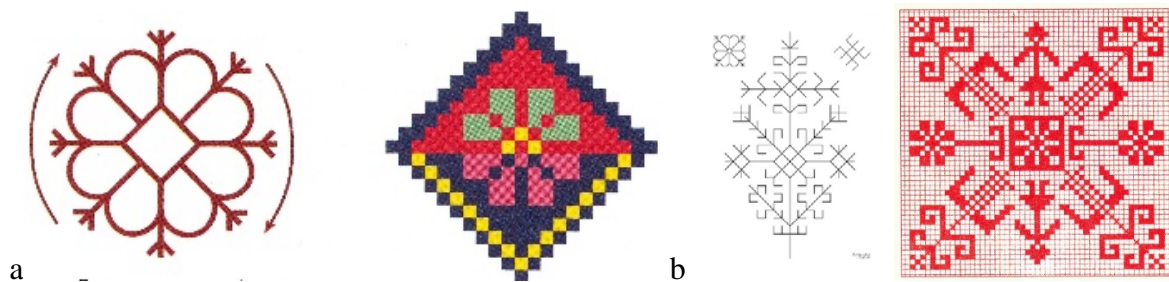


Figure 4 *The Sun's movement: uphill, this Sun (on the top, a and b); in the centre (a and b), the Afterworld; downhill, the Underworld (at the bottom, a and b) (Celms, 2016, 152)*

Figure 5 *The sign of Austra Tree also Solar Goddess Tree is a folklore image and Latvian sacred symbol*

(<https://i.pinimg.com/originals/ba/ff/e9/baffe9faadcaee043f3604e57b5214bc.jpg>)

Figure 6 *Human, the Sun in the World's centre and the Sun Tree in a united World's model, the connection and dependence between nature and a man (Celms, 2016, 167)*

Latvian ethnographic symbols represent the highest manifestation of God. The origin of all signs is the most diverse God's Crosses which start as dots in the centre and aspire for closing in the World's fabric grid. The first manifestation of God's presence in this World as a flash of light and a fair judge is the World's governor Thunder (Latvian: *Pērkons*) assigned by a military function. All-inclusive, impatient, direct, relentless, highly honoured, mighty and revered people's helper and unifier for collaboration develops the World created by God (Fig. 9), arranges basic forces, oversees and restores the Universe movement each time when it is under the threat to come to a halt or it has been taken over by darkness, cold, standstill and harmful forces. Whatever Thunder does, it is done in compliance with God's regulations and advice of advice. Due to God and Thunder's initial unity, the situation of self-initiative and self-organization is created: in the initial push, God's desire is expressed. God and Thunder start their dance – motion, from which time and the Universe as space starts (modern science in this regard puts forward a hypothesis for the Great explosion from which the Universe originated). Thunder strikes in the cross – in the centre of all events – causes generative processes, brings into motion the Earth's fertility, initiates emergence of life, provides continuity of cosmic time flow and cyclic time flow in the Universe and arranges energies, principal elements of the World's creation. The principal form of Thunder's Cross (Fig. 7) which symbolized the Universe rotation is turning God's Cross and bending ends of its branches due to the rotation. Rays of light and space curve in the Universe. Our galaxy has got a form where at one end of the branch, there is the solar system with the planet Earth. The sign shows the centre (Fig. 8), unity of four, cycle of energy accumulation and discharge, eternal rotation – the Universe's breathing in and breathing out motion which has started in one direction that creates preconditions for motion in

the other, opposite direction. A strong, popular sign all over the World is Fire-cross created from two crossed bolts of lightning which symbolizes light, life, fire (Fig. 10), attracts happiness and energy, protects from evil and undesirable natural phenomena. Relations between the human inner and the outer world are revealed in relationships between God and Thunder reflected as images of consciousness of the human individual “I” and the common “we”. God is related to the consciousness of the individual “I” and is manifested in the soul link with the true “I” in the human. Thunder is in the link with the communality’s “we” consciousness. The individual’s personality consciousness is determined by integration into the human mutual relationship net up to expansion – in the nation (Celms, 2016).



Figure 7 *The principal form of Thunder’s cross – ends of branches bending due to rotation of God’s cross (Celms, 2016, 44)*

Figure 8 *Thunder or sky blacksmith’s attributes: axes, the Sun and other images (Celms, 2016, 50)*

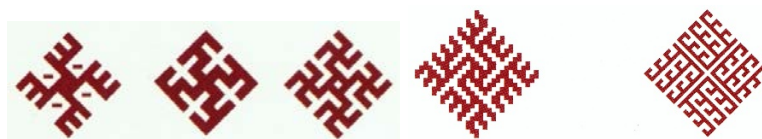


Figure 9 *Thunder develops the World created by God and arranges the main principal elements and forces (Celms, 2016, 51)*

Figure 10 *Fire flames and whirls but always precisely in rhythm (Celms, 2016, 88)*

God’s daughter Fortune (Latvian: *Laima*) is the Goddess of destiny maker, giving life to people and nature, and happiness carrier related to birth and success. She decides upon people’s destinies according to laws created by God. Fortune as the promulgator of the highest causal relationship laws decides whether the human will have a happy or unhappy life, compatibility with people and order of all matters, forges person’s life activities and arranges events in life. Fortune spins, weaves and pulls the thread of life, health and welfare. The activity due to which so varied powers and events caused by them meet up and are twisted into a united thread of time and destiny (in a belt, rope, wreath, fabric or tangle) is symbolized by Fortune’s Cross which is created rotating God’s Cross and bending ends of its branches. Fortune’s Cross symbolizes rotation and development of rhythmical and cyclic movement around the common centre of events. The World’s different forces call events that come together in a single thread of time and destiny. The other Fortune’s Sign is the Needle, the symbol of the World Tree, harmonizes

relationships among people, helps not to give up circumstances, encourages purposefulness at work in order to obtain a lifelong fulfilment and defends from wrongdoers. The fir and pine needle design are considered as the symbol of health, fertility and long life. The Needle is like the footprints of Fortune. If one steps on them, the person's life becomes easier, happier. The way of life is daily care and rhythm. It is part of any happier life. Fortune shows a constant course of events, where moments of tension are equal by moments of relaxation – the same way as the day follows the night, work is followed up by relaxation. Thunder and Fortune manifested as compatibility and order of all matters, as rhythm, as the conformity of events work in a diverse area. They are closely knit together and represent a different scale of a common time flow, provide a course of time and determine or affect destiny. Thunder is the creator of the cosmic time cycle in the macrocosm, in the Universe of planets and stars. Fortune is the decision-maker of a person's life and destiny in the microcosm. However, it can also be shown as a lack of this conformity – in a disturbing course of events, destroyed rhythm, a tangle of different forces and an unfavourable decision. This coherence confirmed by the principal form is equal to Thunder's Cross (Fig. 11) which includes Fortune's Cross and four directions of the needle. All events in the World are arranged like on waves or hills: Fortune is sitting on a hill, Misfortune (Latvian: *Nelaimīte*) – downhill. Fortune and Misfortune walk simultaneously along the same life footpaths. The middle between the top and bottom is the footbridge – the active threshold of balance between twists of life events that go up the hill or takedown. Creating and destroying forces, light and darkness meet on this border. The human being's task in life is to overcome this border and optional situation: getting over the footbridge means you have to overcome it and it brings you joy of living and wealth. Every person is the architect of one's own fortune and destiny. The Latvians do not look at destiny as unchangeable. The human being is given an opportunity to affect their destiny and sometimes even to change it essentially. In the World, everything is the sequence of phenomena whose real source is an accumulation of causes and conditions. The evergreen tree as spruce and pine is an eternal life's symbol, which in Fortune's whisk is manifested as a cyclic coherence: only the one who gets old and dies can get renewed (Celms, 2016).

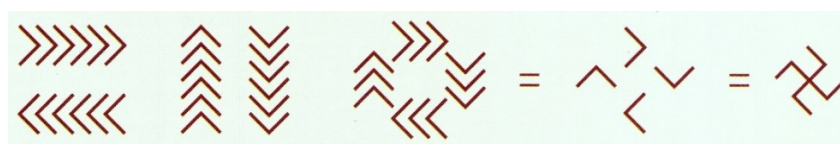


Figure 11 Thunder's Cross includes four directions of the Needle, Fortune's sign (Celms, 2016, 63)

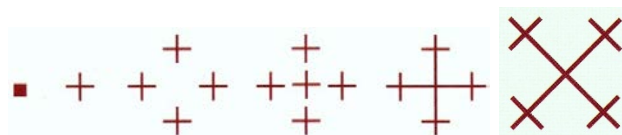


Figure 12 *The dot, the little cross, a set of crosses and twofold is the cross of Mother Earth or Cross-cross (Celms, 2016, 96, 97)*

God is the World's Father, but a feminine counterpart to God, the Goddess of the material world, women's defender Mother Earth (Latvian: *Māra*) is the World's Mother. Mothers are important in Latvian mythology deities. Mother Earth, known also as governor of the Land and the Underworld, Mother Forest, Wind, Sea, Milk, Cattle, Ghosts and Soul, symbolizes the border between this World and the Afterworld. She takes part in people's life activities, also in weddings when two (the male and the female) merge into one, creating a new wholeness. A linden tree is the symbol of a girl, but an oak tree – the symbol of a boy. Mother Earth has different kinds and several ways to exist and lots of varieties of the sign. All these signs present basic principles, security and relations between Heaven and natural powers. A combination of four crosses – the Cross-cross is an enhancement of the simple cross which created a sign symbolizing the ruler of the material world. In comparison with God's Cross, ends of the Cross-cross are crossed over. Their extension into infinity is interrupted with a little cross, which points to the limitedness and finitude of the material world in contrast to the infinity of the spiritual world. Material manifestations have the beginning and the end. The human being in this World is connected with birth when the soul embodies into the physical body and dying – death. Mother Earth's essence is twofold, and the Cross-cross can be looked in two positions of different meanings. The slanted Cross-cross (Fig. 12) symbolizes life creating and highday condition of the material world. Movement blossoms outwards – away from the sign's centre. The straight Cross-cross (Fig. 12) symbolizes the border between this World and the Underworld, where everything freezes, closing life borders in the World of four kinds – four cardinal directions, four seasons, four stages in life and the return of matter in its initial stage. The movement for crosses with life energy smothering character happens backwards to the sign's centre. Individually, the short-term essence of growth is emphasized. The Cross-cross can also be with smaller crosses and stripes. Mother Earth rules over life and no longer living. At the end of life, the human being finishes the course of life, and a body again gets into the Kingdom of Mother Earth. A human and plant are born from it and return to it. The Land is the Great Mother – holy, clear and fair. The symbol of Mother Earth is a straight, horizontal line, but the second symbol is a hook or triangle, whose 90-degree angle points downwards. Drawing the sign on a horizontal plane, sides are pointing to northwest and northeast directions, where the Sun sets during

the Summer Solstice. The sign has a deeply symbolic purpose and power that opposes God's Triangle. Merging God and Mother signs, a rhombus is created to characterize balance and conformity. The pattern together with other signs creates a meaningful symbolism. Both of these signs, covering over each other, obtain a hexagonal star, also Bad Spirit's six-sided cross, which has a strong defence against evil. The sign of Mother Earth drawn as an equal triangle, a hook or half-circle, with the top turned down, is related to symbolic roots and empowered with the opposite force of God's Sign. Mother of Water is symbolized by a zig-zag sign which reflects the river flow and plain of the land. God, Mother Earth and Fortune are invisible in Latvian godliness (Celms, 2016). In the Universe four-dimension space-time, Fortune represents the dimension of time – motion and events in time – and destiny, but Mother Earth represents three-dimension space, types, levels and forces of matter arrangement. God, Fortune and Mother Earth know the course of the following events.

Research problem: common and different features of the sacral space of the Latvians and other nations have been little studied. **Research goal:** analysis of the influence of the Latvian wisdom on traditions of the establishment of early places of worship. **Research methods:** analysis of archive documents and cartographic materials, study of published literature and inspection of sacral places in nature.

Elements of Mythology and Cosmology in Ancient Housing and Shrine Design

In the arrangement of signs related to the World's model (Fig. 6), the twin's principle is important – Father and Mother, spirit and matter, signs of World's wholeness and cyclic renewal for the horizontal division of the circle. Heaven and the Earth, and in nature existing relations of Cosmic forces marked along the vertical. The common understanding of the Indo-Europeans and the Balts about sacral space on the four-part horizontal structure of the Universe (cardinal directions) and the three-part vertical structure (Heaven–Earth–Underworld) is essential. The unity of a Man and Cosmos was confirmed by the comprehension typical to the Indo-Europeans and the Balts about a person's role in events of the Universe space-time. The World's structure formed by three vertically placed spheres was modelled as a tree in nature. A grand, impressive sign of the World Tree was created. In mythical World's centre between Heaven and Earth, between light and darkness and between the past and the future, there is the Man whose image is characterized by the vertical three-part division and the horizontal four-part division, marking seven coordinates: the centre, top, bottom, north, east, south and west. The Man and the World Tree were revealed as symbols of the Universe structure, single motion and life – the World's axis, mediator between the Earth and Heaven. The flow of light never ends, but the World is infinite.

Varieties of the symbolic meaning of the World Tree were characterized by a tree growing in several directions. At the World Tree, which gives people power and advice, protects the kin and the family, promotes the development and encourages to enhance and preserve moral values, the awareness of our past, present and future, our ancestors, children and ourselves is combined. This symbol shows an upwards aspiration of the World's order. The sign's simplest version reminds of a new tree that has just started branching, but in more magnificent derivations, the sign is as rich as its explanation. The Sun Tree as the compilation model of human knowledge and preconceptions is very diverse, but as an element of a peculiar pattern has similar motives in ornaments of other nations. In the Sun Tree, the human being's impression about the World is expressed: the roots were related to the Underworld, but the trunk represents the place where we reside together with animals and plants. The tree's foliage symbolizes the higher spiritual Heavenly World to which everybody aspires. Sun Tree's side branches are placed symmetrically to the middle part "grow" on slant upwards and downwards. The Sun sits on branches of the Light Tree. Upper branches help to stay up on the heavenly hill. Branches going downwards are not able to hold it – the Sun slides down the arms of the tree to continue circuit in the Underworld. The sign of this pattern integrates into the triangular platform whose top points downwards. Sometimes the platform of the Sun Tree is a square or rectangle. Candles are used to adorn the Sun Tree and also Needle and the Moon's Sign. The main stop point in the Universe space-time division is the Sun as a beautiful flower. Expansions of the pattern are shown as flowers – symbols of harmony and events in the Universe. Sometimes the treetop is emphasized. In other versions, the Sun or another element of the pattern is placed in extension of the middle part which is particularly magnificent, that is, the part of our life. The Sun Tree creates a diversified symbol and represents reaching upwards and growth and unites us with God (Celms, 2016).

In every historical period, buildings include elements related to the cosmos, and a man also created and arranged his dwelling as a small, symbolic territory of the Universe. People living in ancient times divine the Sun, the Moon, stars, birds, animals and plants. On the territory of Latvia, the oldest dwellings were conical tents covered with deerskin. An open fireplace was in the middle or in front of the room. The birch wood cards connected together at the top formed the frame of the home. Residents settled along the edge of the tent, and there were also belongings and food (Apals, 1996, 8). Later, dwellings were built more thoroughly from cards and twigs, which lower ends were inserted into the ground. A fireplace for cooking in the middle of the room gave light and warmth. The connection between the dwelling and the fireplace is shown in the sign of the hearth – a circle with a marked centre. The circle is considered to contain energy, forming a protective barrier to the sacred space, which provides protection from supernatural forces.

Common characters of Indo-European and the Balts were included in the spatial composition of housing design – the rectangle or square with the highlighted centre. The Balts since 500 BC have built for housing in-depth or surface structures of the oval or rectangular layout. The main room in the rectangular wooden house, covered by a two-pitched roof, was a common living room with a fireplace in the centre. The Balts and the Livonians received in the power of nature God's counsel for life and work, saw signs of the spirit world. Latvians used the power of signs to protect themselves, their families and their homes. A small cosmology in simple wooden dwellings can be read through several elements. In the Balts' tradition, symbolic interpretations of the square, including four seasons and four celestial meanings, were similar to the circle, expressing sacred time and space. Three gates mentioned for the Latvian farmstead also were given a beautiful symbolic meaning: one by the Sun, one by the Moon, by the third God came, every morning, every evening.

The oldest known holy place in the territory of Latvia has been found in the settlement of Sārnate bog: in the square, which is delimited by a fence, an image of an idol made of one tree was placed (Fig. 13) and a shrine was established (Apals, 1996, 21). In 1972 on the east coast of Lake Lazdiņš (Latvian: *Lazdiņu ezers* also *Lielais Lazdiņš*), archaeologist, Honorary Doctor of the Latvian Academy of Sciences, Dr Hist. Jānis Apals (1930–2011) made archaeological excavations (Fig. 14) in Vaive Lazdiņi Hill (Latvian: *Lazdiņu uzkalniņš*) and revealed peculiar stone constructions as well as pits dug in the earth and filled with sand which was mixed with ash and small coal. On a small stone, there were iron artefacts – a socketed axe, chisel, two ends of a spear, scythe and awl fragments. Slightly further there was an iron knife with a bent back. On the northwest part of the hill, a quadrangular platform piled of rounded stones fit close inside the stone circle. On the platform three small fragments of a man's skull were found — from the facial part, top of the head and its base. The artefacts found in the middle of the hill date back to the 2nd quarter of the 1st millennium AD. In the Lazdiņi Hill, neither skeleton or cremation graves in the traditional form were found. Thus it is possible to consider that in these excavations Apals had found a possible ancient cult site (Apals, 1986). There are no recorded pieces of evidence about the site, however, geodesist, historian of geodesy and engineering education, Professor Jānis Klētnieks (1929–2021), based on archaeological excavations concluded that this was a cenotaph – an empty grave erected in honour of a leader whose remains are elsewhere. As it is said in a Latvian folk song, “Let my sword lie there instead of my bones.” Apals has dated this unique place up to the 4th century. Along the outer edge of a round hill, a horseshoe-shaped pile of stones was created in a northwest-southeast direction. On the south-eastern side of the stone circle, a break of up to 3 metres wide formed the first “gate” bounded on both sides by extra-large stones with a spike placed

upwards or “gate posts”. On the northeast side of the stone ring was a 1,6-metres-wide second “gate”, which was also bounded by large stones. A pit was dug in the centre of the hill, but another smaller pit opposite the second “gate” located in the northeast of the hill (Apals, 1996, 51).

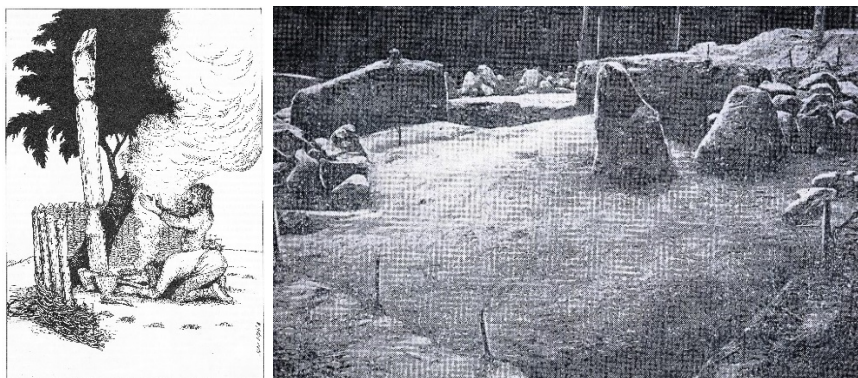


Figure 13 Artist Agris Liepiņš. Shrine with the image of an idol (Apals, 1996, 20)

Figure 14 Peculiar stone structures uncovered during archaeological excavations in Vaive Lazdiņi Hill (<https://www.senvietas.lv/wp-content/uploads/2019/12/1-lazdinu-uzkalnins-j-kletnieks-705x469.jpg>)

In Latvian mythology, a circle is the symbol of completeness, harmony and defence related to eternal, tireless motion, recurrence, return, cycle and wholeness. The circle contains energy, forms a barrier to protect the Sacred Space and symbolizes togetherness, unity, safety, light. In the design of the Balts’ sacred sites, there was a circle (Fig. 15) or a square, which centre was marked by a stone focused on energy. Stone for modern man is just a building material, but people of ancient cultures had a different attitude and understanding of nature: such places were considered sacred, but the stone – as the “way” of life, through which received God’s counsel and regained health. Positive energy is very well absorbed by water and concentrated by various elements as natural stones or man-made stone piles, tectonic elements as hills, valleys, terrain, crevices, caves and springs. Energy information of the Holy Stones can be read even after many centuries. Geologist, Doctor of Geological Sciences Rišards Griškjāns conducted a study on the energy structure of Latvia and concluded, that Latvia is a very energetic country, and it, like the human body, has its own energy-charged acupuncture points. Stones placed at specific locations on intersections of the earth’s network of fine bio-energy streams are capable of radiating energy. In nature everything is interconnected, nature is alive and endowed with the soul. In Latvia, all sacred sites are energetically interconnected through energy information, astral and other fine matter fields, and there is an exchange of information between the holy places, where was not allowed to carry out an economic activity and nature were

left untouched. Ancient Latvian sacred activities of fertility cult took place in the open air under the open sky. Good energy concentrates in woods, in the countryside, in dry areas where grass grows. People donations and prayers gathered in sacred sites – at the tops of sacred places named Elka Hills and in meadows, sacred groves, at holy trees, big stones and piles of stones, as well as at excellent waters that have been attributed to the healing power. They held trees and groves sacred because believed, that life forces, spirits of nature and goddesses live there. The main holiness in the grove was a particularly large tree, where the voice of the deity was heard. Tree growth is a sign of an energetic place, and for a modern person, it can be as a connection to nature. If the person is tired, exhausted, he does not have to go looking for the strongest energetic places to restore them. It is enough if he can relax for a moment in nature and take a deep breath of fresh air. The person, receiving energy, feels the heat and lightness takes over. The head becomes clearer.

The Tuareg people, a large Berber ethnic confederation, principally inhabit the Sahara in a vast area, are well known for their nomadic architecture (tents). The rectangular tent does not need any crossbeams and has a high mullion. Three to five slanted posts, which are anchored on the outside, form the four sides. The tent is traditionally constructed for the first time during the marriage ceremony and is considered to be under the ownership of a married woman. In Tuareg society, women are respected. Sedentary dwellings generally belong to men, reflecting a patriarchal shift in power dynamics. Current documentation suggests a negotiation of common practice in which a woman's tent is set up in the courtyard of her husband's house. It has been suggested that the traditional tent construction and arrangement of living space within it represent a microcosm of the greater world as an aide in the organization of lived experiences.

M. Phil, S. M. Arch. S. and Arch. Dr. Nicolas Reeves from *École de Design, Université du Québec à Montréal*, Canada, consider that an eloquent example can be found in the Tuareg tent, one of the simplest houses of all (Reeves, 2017). The tent is the centre of the world of work for the nomad woman. The furnishing of tents is an individual process, but the orientation of four celestial sides is taken into account. The tents remain similar in their basic structure. The areas facing the four sides of the tent have different significations, and equipment is rational. The place for receptions is in the western area, where the entrance is open to the World. The right part of the tent is assigned to the wife. The southern area is beneficial, and children normally sleep on the floor. The kitchen is in the front. The northern area is the man's area. The left part is seen as the evil one. Here he stores all the tools he needs for his work. The married couple sleeps in the left part. Their heads are always pointing south as does the main opening of the tent that is usually kept open. The only blind side of the tent on the eastern area is dedicated to prayer. The fireplace is the central part of the living space. The fire isn't just used for

cooking but it is the source of light, the heating and the place where guests are welcomed. The fireplace has to be treated with respect at all times. The link between cosmos and architecture unfolds on symbolical and analogical levels.

In cosmology, a branch of science that studies evolution and the structure of the Universe, historically, the Greek worldview has existed for the longest time. Ancient Greek cosmology placed man and his world at the centre of the spherical layers of the sky, and man's relationship with space was reflected in the concept of temple proportions and planning: the most sacred place was in the centre of the cult building. In Ancient Greece, Delphi considered the centre of the World was famous with the sanctuary of Athena Pronaia (Fig. 16) built between 380 and 360 BC. This circular temple (*tholos*) differs from a circular colonnade (*monopteros*) without walls needed to build a domed cella. A stepped podium as elevation without any walls was developed into a sacred place for communicating with God and became the symbol for contact beyond the realms of people's imagination. The circular temple in Delphi was surrounded by a colonnade of Doric columns. The circular wall of the sanctuary supported the marble dome to create a space, where inside a stone bench was placed in the centre. In ancient Greek architecture, a rectangular temple remains the same even in the case of a circular temple surrounded by a colonnade and can be seen as a topological inversion of the cosmos. The Greeks considered that the earth was flat and in its centre was Delphi, where they built the first temple dedicated to God of bright light Apollo. In the middle of the Temple of Apollo, which dates to the 4th century BC, the oval white stone was considered the navel of the World. The Temple of Apollo was known as the Holy Territory and the centre of the complex, from which the Holy Way led to the Agora or market square. The road from the Temple of Apollo led southeast to the sanctuary of Athena Pronaia.



Figure 15 Artist Agris Liepiņš. *The centric sacred site of the Balts* (Apals, 1996, 50)

Figure 16 *Ruins of circular Delphi Tholos* (online 28.02.2020, source

<https://i.pinimg.com/originals/48/6a/a9/486aa933a15b8d27da035ad6c3af06c5.jpg>)

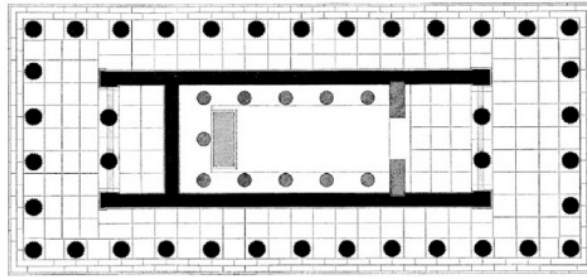


Figure 17 *Plan of the Temple of Hephaestus* (online 28.02.2020, source <https://interactiveancients.files.wordpress.com/2012/09/hephaestion.jpg>)

On top of the Agoraios Kolonos Hill at the north-west side of the Agora of Athens, the Temple of Hephaestus or *Hephaisteion* (Fig. 17) inaugurated in 416–415 BC was dedicated to Hephaestus, the ancient Greek god of fire, and Athena, goddess of pottery and crafts. This classic example of Dorian architecture designed by Iktinus, one of the talented architects who also worked on Parthenon, is the best-preserved ancient Greek temple in the world. It has the inner area of the portico (*pronaos*), situated between the portico's colonnade and the entrance to the cella (from Latin for small chamber), the centrally enclosed cella surrounded by columns of this peripheral temple and housing cult images at the centre of the structure and the inner shrine (*opisthodomos*). The temple from the 7th century until 1834 served as the Christian church dedicated to Saint George Akamates. Researcher of Greek monuments in a wide, universal cultural context, French architect, archaeologist Julien-David Le Roy (1724–1803), stood opinion that architecture always follows the evolution of the society. His book dedicated to ruins of the Most Beautiful Monuments of Greece had a greater impact on practical architecture. Le Roy was elected a member of the Royal Academy of Architecture, and in 1762, he was appointed official historian to the Academy. Besides other works, he wrote a treatise on the evolution of Christian temples from Constantine the Great to the contemporary era. After this second edition (Le Roy, 1770) was released, Le Roy's work greatly influenced the art and architecture of his time. From then onwards, all artistic and architectural creations were marked by the aspiration to return to the perfection of ancient Greek art. This work was released at the time when prominent scholar, a German art historian and archaeologist Johann Joachim Winckelmann (1717–1768) spoke of the supreme humanism of the Greek and the aesthetic ideal expressed in ancient Greek art, the same time when the European public had started to idealize antiquity.

The Creating of Sacral Space at the Origin of Christianity

In Rome on one of the hills, the construction of majestic buildings began from 46. Under the Roman Emperor (98–117) *Marcus Ulpius Nerva Traianus*'s guidance of the political, administrative and religious centre of symmetric layout, Forum Traiani (Italian: *Fordo di Traiano*; 112) surrounded by a covered gallery (Latin: *porticus*) was built in compliance with *Apollodorus Damascenus* (50/60–130) design. In the complex of monumental buildings (107–113), the Temple of Trajan (Italian: *tempio del divo Traiano*) was included. The Roman Emperor (27 BC–14 AD) *Gaius Octavius* achieved the title *Augustus* meant the “holy” built a double-level *Domus Augusti* – the first biggest building on the Palatine Hill, on which southeast side there was the first Roman ruler's residence *Casa Romuli* and sacred sites that related to the foundation of Rome. The third Roman Emperor (37–41) *Gaius Iulius Caesar* erected a palace, and a wooden bridge joined it by the Roman Forum to extend the building to the northwest. The Roman Emperor (81–96) *Titus Flavius Domitianus* on the Palatine Hill built the main Emperors' residence up to the fall of the Empire – a tripartite Domitian's Palace designed by architect *Rabirius*. There was a wide one-way door at the façade by a frontal portico. The chancel situated next to *Aula Regia*. The Emperor and his advisers made administrative and political decisions in the central nave (French: *nef*, Latin: *navis*) of the basilica turned towards the *Clivus Palatinus* which formed processional route issues off the Sacred Road (Latin: *Via Sacra*) (Fig. 18) and runs up onto the Palatine, where it disappears. It probably ran as far as the *Domus Augustana*. The Sacred Road was the main street of ancient Rome, leading from the top of the Capitoline Hill, through some of the most important religious sites of the Forum where it is the widest street, to the Colosseum. The road was part of the traditional route of the Roman Triumph that began on the outskirts of the city and proceeded through the Roman Forum. In the fifth century BC, the road was supported by a super-structure to protect it from the rain. During the reign (54–68) of the Roman Emperor Nero, it was lined with colonnades. The road provided the setting for many deeds and misdeeds of Rome's history, the solemn religious festivals, magnificent triumphs of victorious generals and the daily throng assembling in the Basilicas to chat, throw dice, engage in business or secure justice. While the western stretch of the Sacred Road which runs through the Forum follows the original ancient route of the road, the eastern stretch between the end of the Forum and the Colosseum is a redirection of the road built after the Great Fire of Rome.

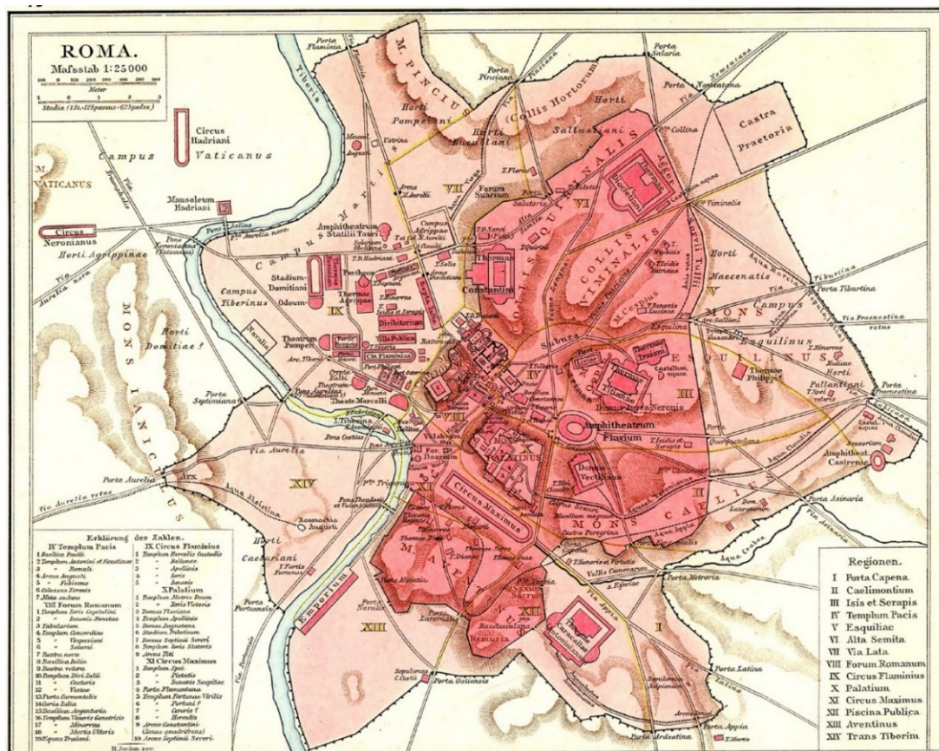


Figure 18 Jordan H. *Map of ancient Rome City. 1886* (Jordan, 1886)

The Emperor of the Roman Empire (Latin: *Imperatores Romani*; 306–337) Constantine the Great (Latin: *Constantinus I Magnus*) being aware of the significance of Christianity acknowledged himself as a Christian. Using Caracalla and Diocletian’s therms as samples, in Rome, the three-nave Basilica of Maxentius and Constantine (Latin: *Basilica Constantini*, *Basilica Maxentii*; 308–312) covered with a vault was built instead of a big warehouse (Latin: *horrea piperataria*). Constantine I gave Roman Bishop the Lateran Palace (Latin: *Palatium Apostolicum Lateranense*) as a gift so that Popes would have a home. On the Caelian Hill, in 313 the construction of the most ancient Roman cathedral – the Cathedral of the Most Holy Saviour and of Saints John the Baptist or the Archbasilica of St. John in Lateran (Latin: *Archibasilica Sanctissimi Salvatoris*; 324, rebuilt after 430) – began. The Archbasilica and the Bishop’s residence were included in the perimeter building. Constantine I in 326 proclaimed Christianity as the only religion in the Roman Empire. The Archbasilica of St. John in Lateran is the World’s and Roman cathedral.

Catholic tradition holds that Peter, after a ministry of 34 years, travelled to Rome and met his martyrdom there along with Paul on 13 October 64. His execution was one of the many martyrdoms of Christians following the Great Fire of Rome. According to Origen, Peter was crucified head downwards, by his own request because he considered himself unworthy to die in the same manner as

Jesus. The crucifixion took place near an ancient Egyptian obelisk in the Circus of Nero. The obelisk now stands in St. Peter's Square and is revered as a "witness" to Peter's death. According to tradition, Peter's remains were buried just outside the Circus of Nero, on the *Mons Vaticanus* across the Via Cornelia from the Circus. The road Via Cornelia ran east to west along the north wall of the Circus on land now covered by the southern portions of the Basilica and St. Peter's Square. Almost 300 years later, Papal Basilica of St. Peter (Latin: *Basilica Vaticana*, *Basilica Sancti Petri*) built by Constantine I between 319 and 333 over this site was of typical basilical form. A wide nave and two aisles on each side and an apsidal end, with the addition of a transept as a perpendicular volume to the longitudinal axis, giving the building the shape of a cross over 103,6 metres long. The entrance was preceded by a large colonnaded atrium by a fountain. The Basilica had been built over the small shrine believed to mark the burial place of St. Peter, though the tomb was "smashed" in 846. The area now covered by the Vatican City (Latin: *Status Civitatis Vaticane*) had been a cemetery for some years before the Circus of Nero was built. Like all of the earliest churches in Rome, both this church and its successor had the entrance to the east and the apse at the west end of the building. In the hall, the altar situated in front of the semi-circular apse. The entrance in the atrium took a long wide stair and through the triumphal arch. Since the construction of the current basilica, the name Old St. Peter's Basilica has been used for its predecessor to distinguish two buildings (Fig. 19).

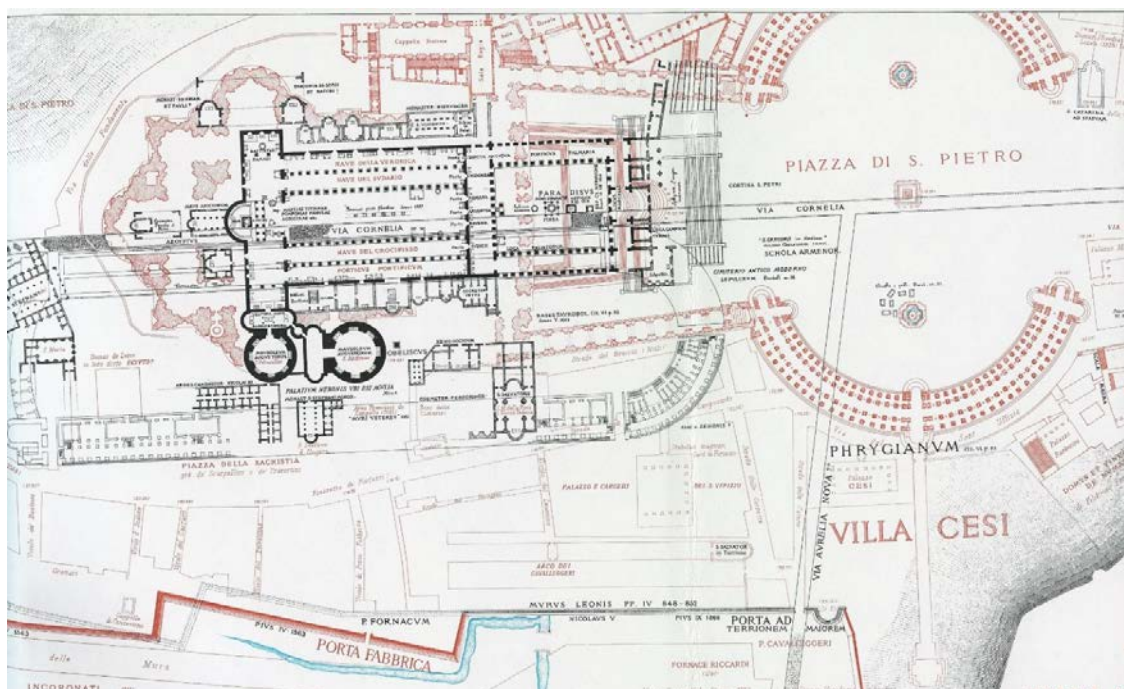


Figure 19 Archaeologist, professor at the Rome University, Rodolfo Amedeo Lanciani (1845–1929). A fragment of the map of Rome with Old St. Peter's Basilica built by Constantine I between 319 and 333 (Lanciani, 1893–1901)

Basilicas built by Constantine I and his descendants became predecessors of cathedrals used until the fourteenth century for religious and social activities. During the first centuries of Christianity, deep in the apse of early basilicas, the bishop's throne or cathedra (Latin: *Cathedra*, Greek: *Kathedra* – “desk”) was placed. In the basilica by the cathedra (German: *Kathedralkirche*, *Kirche der Kathedra*, Latin: *ecclesia cathedralis*), or in the cathedral (German: *Kathedrale* or *Dome*), the Holy Court, philosophical contemplations took place, and political issues were discussed, but the metropolitan governed the metropolis; archbishop, the archdioceses; and bishop, the bishopric. In the basilica considered as a privileged building, miraculous icons and Saints' relics were placed to be lionized by pilgrims who worshipped Jesus Christ and His mother the Virgin Mary. Initially, Roman emperors did not allow Christians to build basilicas in the city, thus obtaining the name “outside the walls”. Pope (352–366) *Liberius* built the three-nave St. Mary Major Basilica (Italian: *Basilica di Santa Maria Maggiore*; founded in 356) where the relic of the Bethlehem's Manger is. Western Roman Emperor (393–423) *Flavius Honorius Augustus* financed building of the Papal Basilica of St. Paul outside the Walls (Italian: *Basilica Papale di San Paolo Fuori le Mura*; around 370) where St. Paul's grave is. All four basilicas situated in Rome obtained the honorary title *Basilica majoris* and privileges. In the Roman Catholic Church, there is a distinction between *Basilica majoris* and *Basilica minoris*, which are honorary titles awarded by the Roman Pope. *Basilicas minoris* is located in different cities. In the Western or Roman Catholic Church, Rome became the Christianity centre by cult buildings and sacral sites. Italian architect, Professor Celestino Soddu considers that the city is a collective dream performed by a growing toward an idea of future. It's made by different and unpredictable events carried out by different ideas during the time. The beauty of historical cities in their wonderful results springs out where we can appreciate the memory of multiple and different interpretations recognizing their own identities. Beauty is in the continuous transformation of the past into the future (Soddu, 2016).

During the fourth century, Christians created places of worship, where the altar was disposed. Unlike the pagans, Christians did not consider the temple as God's home but rather a believers' gathering place in which spatial solution appropriate for the function is initially not related to symbolism. Large-size public buildings of elongated planning – basilicas built by Romans for court sessions, meetings and trade – were adapted to cult needs. Windows built at the top of walls illuminated the worship hall divided lengthwise into three or five naves with the help of columns or pillars. The middle nave was higher and wider. One semi-circular planning niche or apse created in the eastern part of the worship hall was just opposite the main entrance in the building's western part, where narthex or a closed anteroom separated by a wall was created for the people who are not allowed to go in the worship hall. Sacral buildings of simple layout consisted of

two big zones: the presbyterium, where the sacred ritual took place, and the worship hall. Stairs were built in front of the main entrance. Christians changed the architecture of basilicas according to the ritual and created symbolism for religion. In the Roman Empire, there were public buildings – basilicas and sacral buildings – and basilicas with a naturally illuminated rectangular atrium.

Traffic in the seas contributed to the creation of craft and merchant cities, market places and ports. At the Bosphorus exit in the Marmara Sea, Europe borders Asia, and the deep bay of the Golden Horn (Latin: *Sinus Ceratinus*) separates the peninsula on which Constantine I instead ruins the Aphrodite Temple of the Greeks built the Church of St. Irene (*Hagia Irene/Eirene*; burnt down in 532) covered with a cupola. The atrium located in front of the entrance of the church of Greek cross layout. Trading and emperors' ceremonial events took place on the main forum Augusteion surrounded by the portico. Near the university, library, Senate building, Archbishop's Castle, eparch's praetorium and sellers' sheds. On the Augusteion's north side, where the Acropolis is situated, the main church St. Sophia's Basilica (Latin: *Magna Ecclesia*; 324–337) covered with a wooden roof and the atrium in front of the entrance was built. On the south side, Byzantine emperors' main residence (330–1081) the Great or Holy Palace (Latin: *Palatium Magnum, Sacrum Palatium*) is located on the tip of the cape. The Constantinian Wall (around 320) built on the west side created a strongly fortified city of the triple layout. The Byzantine emperors' ceremonial procession road is covered with stone slabs – Mese (Latin: *Media* – “the middle street”) – which started from the Augusteion, and functionally different forums determined the composition of planning (Fig. 20). On the hill near the Constantinian Wall, the Church of the Holy Apostles (Italian: *chiesa dei Santi Apostoli*; around 330, destroyed in 1461) of Greek cross planning, covered with a golden roof and cupola, was built for Byzantine emperors' burials. Roman Emperor (324–361) *Flavius Julius Constantius II* completed the construction of this building by façades of colourful stone, and he also built St. Sophia's Basilica (burnt down on 20 June 404) consecrated on 15 February 360. The Byzantium capital city Constantinople (330–395) called as “the Second Rome” solemnly founded on 11 May 330 became the Christianity centre of the Eastern Orthodox Church with sacral sites where building traditions of cult structures developed. As the largest and wealthiest city in Europe during the fourth to thirteenth centuries and a centre of culture and education, Constantinople came to be known by prestigious titles such as *Basileuosa* (Queen of Cities) and *Megalopolis* (the Great City) and was, in colloquial speech, commonly referred to as just *polis* “the city” by Constantinopolitans and provincial Byzantines alike.

Constantinople, where **the Sacral Way** determined the planning of **the Sacral Place**, became an example for creating of sacral urban space in the Eastern Orthodox Church that joined Slavs in Kievan Rus' (Latin: *Russia, Ruthenia*, Russian: *Киевская Русь*, in Viking languages: *Garðaríki*, Old Slavic: *Роуць*; around 860–1132/1240) adopting Christianity in the tenth century. Italian architect, Professor Enrica Colabella, considers that city structure by a perfect correspondence between urban space and the world of signs resembles language. A correspondence between streets, buildings and squares on one side and phonological, syntactic and semantic elements on the other. This process is like the crossing of a river that is running towards the sea connecting its two different sides with all the memory of its own running in the swimmer crossing (Colabella, 2017). An Austrian-British philosopher Ludwig Josef Johann Wittgenstein (1889–1951) believed that Philosophy of Language may investigate relations between language, language users and the World. Our language can be considered as an old city: a maze of streets and squares, old and new houses and houses with parts added at different times. All this surrounded by a network of new suburbs with straight and regular streets and uniform houses.

Outside the walls of Jerusalem, Golgotha or the Skull Place (Latin: *Calvary*) and possible Christ's punishment site are located. According to the instruction of Constantine's the Great mother Flavia Iulia Helena Augusta (around 250–330), the Church of the Anastasis (German: *Auferstehungskirche*; 325/326–335, destroyed in 1009) called the Church of the Holy Sepulchre (Latin: *ecclesia Sancti Sepulchri*, German: *Grabeskirche, Kirche des Heiligen Grabes*, Russian: *Воздвѣженіе Честнѣго и Животворящѣго Крестѣ Господня*) or the Church of the Resurrection was built. High walls of the Anastasis Rotunda supported the dome in the central part of the five-aisled basilica. The Church of the Anastasis complemented around 330 by a belfry was solemnly consecrated on 14 September 335. As toward the east the Temple Mount blocked the Decumanus Maximus orientated the eastwest direction, therefore the second main road pair over the Cardo subordinated to the planning along the Tyropoeon Valley. The Decumanus in the north of the Temple Mount was created. The Cardo Maximus, orientated in the northsouth direction, reached in the fifth century the 21 m width, became the centre of economic life and finished at the Roman garrison camp where in the right angle, it crossed the Decumanus Maximus (Fig. 23). The Cardo Maximus formed a link between the New Church (*Nea Ekklesia*; 543) and. During the Second Crusade (1147–1149), knights rebuilt the Church of the Anastasis, the most important holy site for Christians: the façade by the main entrance gate, in front of which the atrium surrounded by chapels was turned towards the Cardo Maximus. Opposite the belfry (architect *Maitre Jourdain*; 1160–1180) completed in 1172, it takes 12 steps in order to go upstairs to a separate Crusaders' ceremonial entrance into Golgotha. There are 14 meditations, stations or stopping

places on the Way of the Cross (Fig. 24). Reconstructed Church of the Anastasis was solemnly consecrated on 15 July 1149. At the east end of the main temple Catholicum (German: *Katholikon*; 1160–1170) of the Church of the Anastasis complex (Fig. 22), a passage was made to a circular gallery. In the north gallery of Catholicum, huge square buttresses and high vaults form the Arches of the Virgin Mary, which in the east is closed by the Holy Prison. The crown of three chapels for secondary worship places consists of the Loginus Chapel with the Altar of the Roman Army Commander (Latin: *centurio*), martyr St. Loginus (German: *Kapelle des St. Longinus*), Division of Holy Robes Chapel and, on the right, the Greek Chapel of the Derision from which steep steps descend to the underground Armenian Chapel of St. Helen (German: *St. Helena-Kapelle*) whose official name is the Chapel of Holy Cross (German: *Kreuzauffindungskapelle*). This was the crypt of Emperor Constantine's basilica (fourth century). The main altar was erected for St. Helena and Gregory the Illuminator. A steep staircase leads to the Franciscan Chapel of the Finding of the Cross (*Inventio Crucis*) where, according to tradition, St. Helena discovered the True Cross. The Franciscan Monastery has been added to the north part of the temple's complex. The Franciscan Church was made. Jerusalem became the world's sacral centre which consists of all types of sacred buildings and the Cross Way.

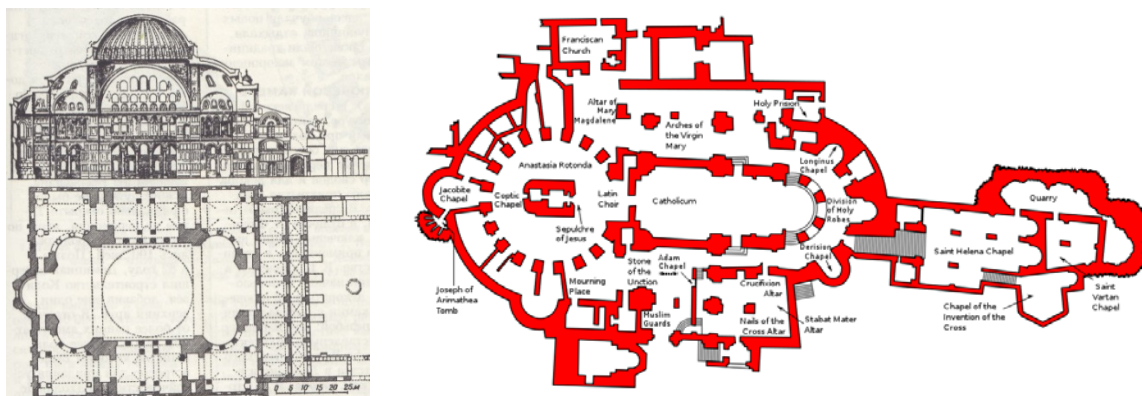


Figure 21 *Anthemius of Tralles, Isidore of Miletus. The longitudinal section of the The Hagia Sophia (532–537) and a plan with the atrium, outer and inner narthex (Adamchik, 2005, 233)*

Figure 22 *Plan of the church of the resurrection building complex in Jerusalem (online 07.05.2019, source:*

https://upload.wikimedia.org/wikipedia/commons/thumb/5/53/Anastasia_Rotonda_sketch_1.svg/1000px-Anastasia_Rotonda_sketch_1.svg.png)

Until 4 July 1187, Jerusalem was ruled by knights. During the Third Crusade (1189–1192), knights, monks and merchants from Lübeck and Bremen the “St. Mary’s Teutonic Brotherhood in Jerusalem” on 6 February 1191 confirmed. Later the *Ordo domus Sanctae Mariae Teutonicorum in Jerusalem* (German:

Brüder und Schwestern vom Deutschen Haus Sankt Mariens in Jerusalem, in short, *Deutsche Orden*; 1198–1525) or the Teutonic Order was made. German merchants started to monitor traffic on important earth highways, waterways in rivers and seas in Europe, expanded the impact in the Baltic Sea region to spread Christianity under the leadership of the Pope and the Holy Roman Emperor.

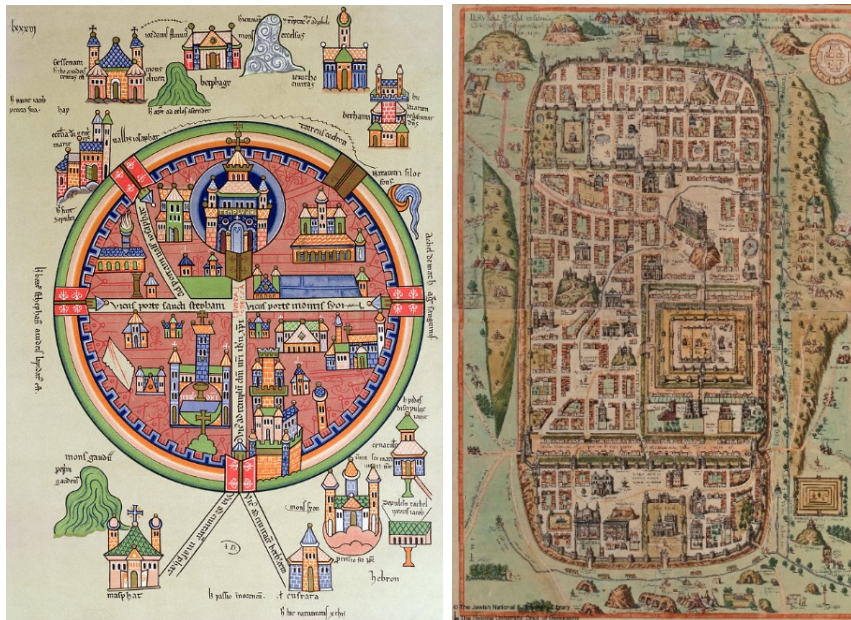


Figure 23 French school. A drawing (colour litho) of an ancient schematic map of Jerusalem and Palestine with the sacred sites and the Temple of Solomon. 19th century (online 07.05.2019, source: <https://fineartamerica.com/featured/ancient-map-of-jerusalem-and-palestine-french-school.html>)

Figure 24 Imaginary plan of ancient Jerusalem and its suburbs at the time of Jesus. 1590 (*IERSALEM, et Suburbia eius, sicut Tempore Christi Floruit, cum Locis, in quibus Christ Passus. Decripta per Christianum Adrichom Delphum. 1590, The Jewish National & University Library. The Hebrew University, Department of Geography, online 07.05.2019, source: blob:null/1851cb49-3986-4c07-ba1b-bbb2faadeedb*)

Christians created functionally diverse types of sacred buildings whose design, structural structure and choice of architectural elements subordinated to the needs of the creation of the sacred resting place, the religious ritual and pilgrims. During the course of centuries, the complex of the Church of the Anastasis around the rotunda has been rebuilt and supplemented by different sacral elements. The mutual placement of the cathedral, churches, chapels and belfry creates a very complex structure. Cult buildings of the Greek and Latin cross layout were involved in the urban environment. Three major Christian centres created at Rome, Constantinople and Jerusalem influenced the development of urban planning in Europe.

Conclusions

1. Geometric signs of strong energy embody rhythms of nature, but symbols characterize the special relation to nature, the World and the Universe. The unity of the person and nature (cosmic) run covers the potential of harmony to restore the lost balance in the modern physical and spiritual world. Christians created symbolism for religion and places of worship, where disposed the altar according to the ritual.
2. Representatives of ancient civilizations maintained a special connection with nature and the Universe and believed that God brought blessings to the earth and people and developed the World, so they established shrines for communication with God. Religious rituals of the Balts' tribes took place in energetically powerful sites in nature near their places of residence. The layout of the ancient Latvian places of worship on hills was formed by a circle – a strictly geometric and symmetrical sign, which in the language of symbolic signs indicates a person's connection with God and the Universe. The Tuareg tent can be seen as an early analogy to the Christian Church, where the opening to the secular world is on the west side, but prayer for dialogue with higher powers take place against the eastern wall, which presents no opening, like the apse of a church. Man's path to spiritual perfection was associated with nature, the Universe, and symbols of geometric signs.
3. The ancient Greeks built sacral buildings of stone in places of worship, but in the Christian era, types of buildings for cult rituals began to develop. The construction of shrines followed ancient principles: buildings included domes indicating a connection to the Universe and elements related to the cosmos.
4. In Jerusalem, the Cross Way of religious processions was particularly important, but in the urban environment of Rome and Constantinople, the Way became the main element of the layout composition. Buildings for religious rituals were developed in the urban environment, and it was subordinate and connected to the road, which had a functional and symbolic meaning.

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МИТАВСКИЕ РИСУНКИ АЛЕКСАНДРА СТРЕКАВИНА (1889–1971) – СВИДЕТЕЛЬСТВА ИЗОБРЕТЕНИЙ XIX – НАЧАЛА XX ВЕКА

Alexander Strekavin's (1889–1971) Drawings of Mitau – Evidence for the 19th– early 20th-Century Inventions

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Abstract. *Mitau, the former capital of the Duchy of Courland and Semigallia, became the Courland Governorate centre with the Governor's residence in a palace on an island formed by the Driksa, the branch of the Lielupe River, and great changes have taken place in this city. Artist Alexander Aleksandrovich Strekavin, who born in Mitau on 17 September 1889, studied art history, read books, investigated documents in the museum, listened to people's stories and completed materials about events and the development of his native city. His drawings introduce with the new iron bridge for traffic and technical innovations – bicycles, the first car in the Baltics and the first phonograph in Mitau, clothes of citizens during the 19th century and at the beginning 20th century. Since the 1950s, six notebooks in Latvian with memoirs recalling by Aleksander Strekavin and an illustrative appendix – a collection of his drawings "The Atlas of Notes on Ancient Mitau" are in the funds of Jelgava History and Art Museum of Ģederts Eliass. Research object: drawings of artist Alexander Strekavin. Research goal: analysis of changes in Mitau during the 19th century and at the beginning 20th century. Research problem: Strekavin's drawings stored in the funds of Jelgava History and Art Museum have not been studied. Research novelty: analysis of information on technical innovations included in "The Atlas of Notes on Ancient Mitau". Research methods: studies of published literature, cartographic materials and archive documents.*

Keywords: *Alexander Aleksandrovich Strekavin, Atlas of Notes on Ancient Mitau, clothes of citizens, collection of drawings, Mitau, St. Petersburg, technical and artistic innovations.*

Введение Introduction

Художник Александр Александрович Стрекавин родился 17 сентября 1889 года в Митаве, в доме Эймана на Большой улице, 40, и проводил в этом городе своё детство до 1904 года, когда его отец – продавец в магазине железных товаров в «Колоннадах», переехал работать в Либаву. В августе 1910 года Александр вернулся в Митаву, где в детстве заметил много интересного, и стал учителем в частной женской гимназии

Э. Клейнберги и Александровской школе, а потом в частной женской гимназии И. Приеде. Он преподавал рисование, черчение, а затем – историю искусств. В начале Первой мировой войны начал работать в Митавской реальной училище, но в июле 1915 года, когда приближался фронт, эвакуировался в Россию. В своих записках воспоминаний Александр писал, что всегда интересовался историей Митавы, читал книги, изучал экспонаты и документы музея, внимательно слушал рассказы людей о событиях в Митаве. О древнем городе могли рассказать отчаянные митавчане старшего поколения, рассеянные по всему миру, но Александр считал, что о своем городе он знает то, чего не найти в учебниках истории и документах, потому это должно быть написано и сохранено. Его рисунки характеризуют быт жителей в определенной эпохи времени и внедрение различных изобретений в повседневную жизнь. **Цель изучения:** анализ изменений, произошедших в Митаве в XIX – начале XX веков. **Проблема исследования:** рисунки Стрекавина, хранящиеся в фондах Елгавского историко-художественного музея, не изучены. **Новизна:** анализ сведений о нововведениях в городе, включенных в «Атлас к запискам о древней Митаве». **Методы:** изучение опубликованной литературы, картографических материалов и архивных документов.

Изменения городской среды в Митаве в начале XIX века *Changes in the Urban Environment in Mitau at the Beginning of the 19th Century*

В России в начале XIX века появились первые признаки изменения социальной структуры общества. В средневековье городские площади имели неправильные очертания и разнохарактерную застройку, формировавшиеся путем вековых наслоений, а с 1802 по 1807 годы живописность уступила место строгости композиции. В городах стремительно стали развиваться регулярные планировочные системы и создавались центральные рыночные площади, окруженные торговыми рядами. Значительно выросли размеры городских площадей. Они приобрели геометрически правильный план и столь же регулярную застройку, и замкнутость пространства ослабилась. В плане города одну или две прямолинейные улицы трактовали в качестве главных планировочных осей системы взаимно перпендикулярных улиц. На широких улицах разбивались бульвары, располагались площади, строились церкви и большие жилые и общественные здания. В городах у рек главную улицу тянули вдоль берега, делая выходы с нее в сторону побережья. Прямоугольные площади и улицы составили единое планировочное целое. В городах Курляндской губернии, где продолжали

существовать исторически сложившиеся народные традиции и культура дворянства, особое внимание уделяли применению новых планировочных принципов и художественно-эстетическим соображениям. Развитие определялось взаимодействием российской административной системы управления. Монументальные здания возводили в функционально активных местах на набережных и площадях и у магистральных сухопутных путей сообщения. Много существующих домов пришлось перестраивать. В Митаве, столице Герцогства Курляндии и Семигалии, где в 1688 году завершили строительство высокой башни лютеранской церкви Святой Троицы (латыш. *Jelgavas Svētās Trīsvienības Evaņģēliski luteriskā baznīca*) (Рис. 1), покрытой невысокой пирамидальной четырехгранной крышей (Spāītis, 2011), развивался многофункциональный центр и были устроены дома торгового, медицинского, образовательного, административного и производственного назначения. Около 1700 года Митаву окружил оборонительный канал и вал с пятнадцатью бастionsами, и был создан город, типологию которого можно найти среди образцов идеальных городов эпохи Возрождения (Ozola, 2018, 140). В начале Северной войны (1700–1721), на острове было всего шесть каменных построек, не считая замка (Ozola, 2014a, 225). Неотъемлемой частью ратуши (нем. *Rathaus*) (Рис. 2), построенной в 1740-х годах на Рыночной площади (нем. *Marktplatz*), были пруд, вода которого приводила в действие мельницу, и канал герцога Якоба, который к западу от Митавского дворца (нем. *Schloss Mitau*, латыш. *Jelgavas pils*) и моста через Дриксу (нем. *Drixe*, латыш. *Driksa*) обозначил главную композиционную ось в почти симметричном плане Митавы. Перпендикулярно водному пути Лиелупе (латыш. *Lielupe*) проходила транспортная магистраль и функционально делила территорию города. В 1802 году в Митаве имелся 41 каменный дом и 565 деревянных зданий. За развитием архитектуры следил первый архитектор Курляндской губернии (1795–1804) датчанин Сверин Йенсен (*Severin Jensen*; 1723–после 1809).

На левом берегу Дриксы композиционными центрами планировки стали взаимно связанные, но функционально различные Конюшенная (нем. *Stall-Platz*) и Рыночная площади, нуждающиеся в более современной застройке. В Конюшенной площади доминировали Большие Герцогские конюшни (нем. *Stall*). После перестройки бывшей конюшни в высокое здание, покрытое крутой, двускатной крышей со срезанными концами, Митава с 1802 года имела впервые на территории Латвии специально для театральных постановок созданный городской театр (нем. *Schausspielhaus*, в первой половине 1890-х годов демонтирован) (Рис. 3). В неотапливаемом зале насчитывалось 1090 сидячих мест, хотя спектакли одновременно могли смотреть до 1500 зрителей. Говорили, что в середине XIX века в этом простом, некрасивом здании, выполняющей функцию культурного

центра, сцена была самой большой в Европе. Здесь с удовольствием выступали многие европейские знаменитости, чтобы по дороге из Западной Европы в Ригу и богатый русский мегаполис Санкт-Петербург прервать утомительное путешествие в конном экипаже, воспользоваться возможностью получить признание и прихватить с собой большую пачку денег. Митаву давно считали городом с очень музыкальной аудиторией, которая уважает музыку, но предъявляет высокие требования к исполнителям. В основном эти были немецкие зрители, а позже и русские. Все они почти исключительно были из буржуазии и знати. В театре было очень странное освещение зала. Из чердачного помещения под крышей работник через люк в потолок опускал цепь, к которой на подвешенном большом железном кругу были прикреплены 20–25 керосиновых ламп. До начала выступления он получал сигнал со сцены – звук колокола, открывал люк и с помощью лебедки поднимал примитивную «люстру» на чердаке. Люк закрывали, и в зале становилось темно. Спектакль начинался. Сцена тоже освещалась керосиновыми лампами, расположенными за различными кулисами, кустами, столбами. Если лампа начинала дымить, даже в середине действия, то работники выходили на сцену отрегулировать горелки дымящихся ламп на меньшие. Подобные случаи вовсе не мешали зрителям, которые наслаждались высоким искусством и внимательно следили за действием на сцене. В городском театре правили уют и простота. После сигнала до перерыва «люстру» опускали в зал. Люк закрывали, и публика находилась в освещенном зале. Это «полезное» устройство имело большой недостаток. Зимой на холодном чердаке рабочие старательно зажигали керосиновые лампы, которые после их опускания в зал и закрытия люка находились у потолка, где было тепло, и часто яростно дымили. Яркие вечерние платья многих «мадам» оставались пестрыми.



Рисунок 1. Художник Александр Александрович Стрекавин (1889–1971).

Лютеранская церковь Святой Троицы в Митаве (Strekavin, picture 69)

Figure 1 Artist Alexander Strekavin (1889–1971). Holy Trinity Lutheran Church in Mitau

Рисунок 2. Стрекавин. Дом ратуши в Митаве (Strekavin, picture 67)

Figure 2 Strekavin. The Town Hall in Mitau

Рисунок 3. Стрекавин. Здание Митавского городского театра, созданное после реконструкции бывшей конюшни (Strekavin, picture 6)

Figure 3 Strekavin. Mitau City Theatre created after the reconstruction of the former stable

В 1810 году застройка Конюшенной площади включала манеж, здание театра, Большие Герцогские конюшни. Неподалеку на Озерской улице (нем. *See-Strasse*, латыш. *Ezera iela*) находилась Реформатская церковь, а вдоль Дриксы, напротив Митавского дворца, сформировалась стилистически единая застройка Набережной улицы (нем. *Bach-Strass*, латыш. *Upes iela*). Под надзором государственного деятеля Российской империи, исполняющего обязанности курляндского гражданского губернатора, первого младшего советника суда (нем. *Oberhofgericht*), члена Берлинской академии искусств и Академии изящных искусств в Болонье, барона Генриха фон Оффенберга (нем. *Heinrich von Offenberg*; 1752–1827) два жилых здания перестроили в двухэтажный Дом курляндского рыцарства (1803–1805) (Рис. 4).



Рисунок 4. Издатель Блехманн. Дом курляндского рыцарства. 1910-е гг.
(Blechmann, 1910s)

Figure 4 Publisher Blechmann. House of the Courland Knighthood. 1910s

Рисунок 5. Стрекавин. Большой или Дворянский клуб (Strekavin, picture 2)

Figure 5 Strekavin. The Noble Club in Mitau

Рисунок 6. Стрекавин. Екатерининский приют в Митаве (Strekavin, picture 75)

Figure 6 Strekavin. Catherine's Shelter in Mitau

Герцогская оранжерея на Екатерининской улице (латыш. *Katrīnas iela*, нем. *Katharinen-Strasse*) была перестроена в двухэтажный каменный дом под двускатной крышей со срезанными концами. Центральную часть Большого или Дворянского клуба (нем. *Adelsklub*; 1809) подчеркивал мезонин и балкон над главным входом (Рис. 5). Рыцарство здесь устраивало балы, картежные вечера и приемы.

В 1813 году, уже после наполеоновского нашествия, на 24 улицах Митавы насчитывалось 32 общественных и 577 жилых зданий. На Большой улице (нем. *Gross-Strasse*, латыш. *Lielā iela*) стоял Дом губернского правления (нем. *Regierung*), на Болотной улице (нем. *Teich-Strasse*, латыш. *Dīķa iela*), что находилась на южной окраине города, была построена синагога. Застройка Конюшенной площади была полностью завершена. На Рыночной площади дальнейшее развитие получил городской торговый центр, закрытый с запада и юга плотно построенными

друг к другу домами. Самыми значимыми зданиями были ратуша, церковь Св. Троицы, Екатерининский приют (нем. *Armenhaus*) (Рис. 6). Постепенно застраивали Замковую улицу (нем. *Schloss-Strasse*, латыш. *Pils iela*). В Митаве немцы в 1815 году основали Курляндское общество любителей словесности и художеств (нем. *Kurländische Gesellschaft für Literatur und Kunst*). Архитектор Курляндской губернии (1813–1820) Генрих Эдуард Дихт (нем. *Heinrich Eduard Dicht*; 1788–после 1842) следил за устанавливаемыми правительством направлениями, разработал проект улучшения жилищных условий крестьян и представил генерал-губернатору. 5 сентября 1817 года проект рассматривался на заседании Курляндского общества любителей словесности и художеств.

После того, как в 1815 году военный госпиталь покинул Митавский дворец, северное здание замка 11 мая 1816 года сгорело, и это побудило губернское руководство не только прибегнуть к сгоревшим помещениям, но и восстановить весь дворец, который в то время был полностью опущен. Маркиз, дипломат, генерал-губернатор прибалтийских провинций Филипп Осипович Паулуччи (ит. *Filippo Paulucci delle Roncole*; 1779–1849) в ноябре представил российскому императору (1801–1825) Александру I проект передачи дворца администрации Курляндской губернии. Митавский дворец восстановили, и Дихт за работу по устранению ущерба, нанесенного армии Наполеона, получил императорскую благодарность – кольцо с бриллиантами (Millers, 2020, 210). Перемены в социальной жизни изменили отношение людей к природе – на смену городским природным пейзажам пришли насаждения, созданные человеком. Неотъемлемой частью благоустройства стали бульвары и скверы. Отдельные дома и ансамбли зданий, а также улицы, площади и зеленые структуры пытались соединять в единую композицию, чтобы совершенствовать городскую среду. Митава переживала масштабные изменения – ликвидацию городских валов и создание публичных насаждений на Губернаторском острове (нем. *Schloss-Insel*, латыш. *Pils sala*). Генрих Дихт не был укоренен в местных традициях, благодаря чему смог их преодолеть. Так, территорию дворца, ограниченную валами, к 1817 году преобразовали в Городской сад с каналами, мостиками, павильонами. Застройка набережной сформировала выразительную городскую панораму. Грюнгофская (нем. *Grünhöfische-Strasse*, латыш. *Zaļā iela*) и Почтовая улицы (нем. *Post-Strasse*, латыш. *Pasta iela*) были уже плотно застроены с обеих сторон. Улицы Дворцовая (нем. *Palais-Strasse*, латыш. *Palejas iela*), Католическая (нем. *Katholische-Strasse*, латыш. *Katoļu iela*) и Большая вели к Рыночной площади.

С целью модернизации торговых павильонов, располагавшихся в три ряда параллельно направлению Большой улицы, генерал-губернатор

Паулуччи 10 февраля 1818 года утвердил проект перестройки Рыночной площади. Архитектор Дихт предписал снабдить торговые места входами, которые были оформлены колоннами, и разработал проект комплекса мясных и хлебных лавок и городской весовой (после 1813). Большая улица обрела продолжение – Колоннадную улицу (нем. *Colonaden-Strasse*) (Ozola, 2014). Дихт работал над модернизацией Конюшенной площади (1818), но его замысел остался неосуществленным. В Митавском дворце 30 августа 1818 года в присутствии императора Александра I прозвучало объявление об отмене крепостничества в прибалтийских губерниях, положив в России начало продолжительному и сложному процессу распада феодального строя.

Александр I оказал финансовую поддержку модернизации городской среды и 27 мая 1820 года начали перестраивать рыночную площадь. Открытая часть канала была заполнена, и создали регулярный, красивый бассейн с парапетом (Рис. 7). Края мельничного пруда были закреплены коваными камнями, а площадь была вымощена. В Митаве создали уникальный комплекс деревянных построек, который нельзя было найти больше нигде на территории Латвии. Торговый двор с тремя рядами домов образовывал ограниченную городскую рыночную площадь, а Замковая улица соединяла с началом Большой улицы. Колоннады (Рис. 8), построенные под руководством архитектора Дихта, образовали деятельный торговый центр. (Millers, 2020, 209). В 1822 году на Парадной площади (нем. *Parade Platz*) по проекту Дихта возводили новый Сторожевой дом (нем. *Hauptwache*) (Рис. 9), разделивший территории Рыночной и Парадной площадей. Обязанности Курляндского губернского архитектора с 1821 по 1846 год исполнял Фридрих Август Шульц (нем. *Friedrich August Schultz*), ученик выдающегося архитектора и градостроителя Карля Фридриха Шинкеля (нем. *Karl Friedrich Schinkel*; 1781–1841). Шульц также получил образование в Петербурге, где научился понимать суть архитектуры русского классицизма, разработал проект реконструкции Конюшенной площади (1824–1825) и создал новые конюшни (1824–1825) в западной части дворцового двора. На Рыночной площади (Рис. 15) с обеих сторон Сторожевого дома он построил зал для торговли рыбой (1823–1824) и павильон для торговли хлебом (1841–1843). Около 1825 года застройку вокруг площади завершила гостиница Иоганна Эрнста Цера (нем. *Johann Ernst Zehr*) на Озерской улице (Рис. 10).



Рисунок 7. **Стрекавин. Бассейн на Рыночной площади** (Strekavin, picture 68)
Figure 7 Strekavin. A pool on the Market Square

Рисунок 8. **Стрекавин. Колоннады – торговый комплекс деревянных построек**
(Strekavin, picture 64)

Figure 8 Strekavin. Colonnades – a unique wooden building complex for active trade centre

Рисунок 9. **Стрекавин. Сторожевой дом** (Strekavin, picture 66)
Figure 9 Strekavin. A Guard House

Рисунок 10. **Стрекавин. Гостиница Иоганна Цера** (Strekavin, picture 16)
Figure 10 Strekavin. The hotel belonged to Johann Ernst Zehr

В 1826 году в Митаве насчитывалось 10 130 жителей, пользовавшихся 892 домами и участками застройки, а также имелись 60 каменных и 610 деревянных частных жилых домов, 119 хижин, а также пять каменных и одна деревянная церкви, три синагоги, гимназия, пять школ, военный госпиталь и больница на Конюшенной площади, 14 богаделен и домов для нищих, легаты для поддержки студентов и бедных. В Митаве использование образцовых фасадов не было механическим, потому не привело к образованию «стандартной» архитектуры. Самыми яркими образцами классицизма в Курляндии стали три взаимно связанных между собой ансамбля Конюшенной, Рыночной и Парадной площадей для развития функционально разных центров. Улицы, обеспечивавшие связи между центрами, приобрели функциональное значение и архитектурный облик, отвечающий эпохе. Город становился функционально и визуально все более упорядоченным. Эпидемия холеры в 1831 году прервала начатую модернизацию застройки.

После наводнения 1837 года, когда затопило Рыночную площадь, сильно пострадали пол и часть оборудования церкви Св. Троицы, имевшей великолепный орган, украшенный множеством деревянных фигур. Когда орган играл, наверху посередине большой золотой орел сдвигал свои крылья, и многие фигуры двигались началась модернизация ее интерьера (Spārītis, 2020, 27). Церковь отремонтировали, украшения органа были удалены и много древних вещей выбросили. Архитектор Шульц разработал проект перестройки Дома курляндского рыцарства (1837), однако архитектору Эмилю Юлиусу Августу Штраусу (нем. *Emil Julius August Strauss*) из Берлина был заказан новый проект (1838). Всемирно

известные артисты выступали в Митаве либо в непривлекательном городском театре или в концертном зале Большого клуба, здание которого существовало долгое время. Один из выдающихся немецких композиторов Вильгельм Рихард Вагнер (нем. *Wilhelm Richard Wagner*; 1813–1883) с 1837 по 1839 год дирижировал в Рижском городском театре, но в связи с его долгами и высокими требованиями, которые руководство театра не хотело удовлетворить, его материальное положение в 1839 году сильно ухудшилось. В митавском зале Большого клуба он выступил с концертом. В программу вошла Третья увертюра «Леонора» венского классика Людвиг ван Бетховена (нем. *Ludwig van Beethoven*; 1770–1827) и участие приняли его первая жена, актриса Вильгельмина (Минна) Вагнер (нем. *Wilhelmine (Minna) Wagner*, род. *Planer*; 1809–1866) театральный оркестр и виолончелист. Впоследствии Вагнер, собрав доходы от концерта, не вернулся в Ригу, а вместе с женой и собакой 9 июля начал побег от рижских кредиторов, пересек российскую границу по дороге в Кёнигсберг и 17 сентября прибыл в Париж.

Согласно плану Митавы, разработанному по эскизу аудитора Фридриха фон Грабе (нем. *Kreis-Revisor Friedrich G. von Grabe/Grabbe*) в 1841 году, город разделялся на четыре территориальных округа. Начиная с 1848 года, крестьянам разрешили перебираться в города, и латыши, русские, евреи, литовцы все в большем количестве прибывали в Митаву, и жители немецкой национальности оказались в меньшинстве. Улицы Митавы были своеобразно освещены. В жилом доме окно над входной дверью освещало коридор, и каждый вечер в лампе зажигали жирную свечу, помещенную в плоский сосуд с водой, и устанавливали над дверью так, чтобы трапециевидные боковые плоскости лампы и уличное стекло входили в окно. Небольшая водяная свеча (нем. *Wasserkerze*), разбрасывая капли жидкого жира на всех сторонах, горела до 22 часа вечера. Когда свеча сгорала, вода её тушила. Стекла лампы всегда были смазаны жиром. Таким образом «освещали» улицы. Фасонные окна от уличных осветительных приборов над дверями во многих старых домах сохранились даже в XX веке, когда эти лампы давно не использовались.

**Свидетельства о внедрения инноваций в
Митаве в рисунках Стрекавина
*Strekavin's Drawings – evidence of the Implementation of
Innovations in Mitau***

В Митаве, однако, ещё не забывшей своего столичного прошлого, традиции мультикультурализма и сожительства в многонациональном обществе укрепились. Стремление к более высоким стандартам быта и

культуры способствовали переменам. Карл Паули в 1850-м году приобрел обширный земельный участок с небольшим садом, где разбил аллеи и высадил новые деревья, устроил живые изгороди, и в одном из зданий со стороны Почтовой улицы открыл ресторан. В тени деревьев появились беседки, скамейки и статуи, а в глубине парка создали небольшой павильон, где хозяин принимал гостей. Сад Паули был доступен простым горожанам и вскоре становился одним из самых любимых мест отдыха митавчан. В 1852 году в саду Паули показывали «ожившие картины». Участники этого спектакля одевались в старинные одежды и изображали сюжеты знаменитых картин или скульптур. Сад пользовался популярностью и после смерти владельца. 9 ноября 1865 года группа русских митавчан учредила общество. Основателями стали купцы, служащие губернской канцелярии и офицеры русской армии, которые дали новому обществу название «Кружок» (нем. *Vereinshaus Krushok*). Спустя три года в клубе уже насчитывалось 130 членов, многие из которых были немцы. По словам газеты «*Rigasche Zeitung*» они вступили в клуб в основном потому, что там можно практиковаться в русском языке. В первой штаб-квартире русского клуба на Болотной улице (11 июля 1950 года переименована в ул. Судрабу Эджюс) проводились концерты, лекции, театрализованные постановки. В 1870-е годы сад Паули приобрёл купец Николай Ширкенгофер. Он перестроил здание ресторана, разбил обширный розарий и вдоль дорожек сада выстроил длинные веранды со столиками. В саду появились зимняя и летняя сцены, продолжались концерты, выступали театральные труппы и оперные певцы.

В Митаве, как во многих средневековых городах, пожарные бригады еще не были созданы, и магистрат города поручил потушить пожары торгово-ремесленным корпорациям, объединявшим мастеров одной или нескольких схожих профессий. Представители союза средневековых ремесленников пытались с помощью подручных инструментов при пожарах победить огонь как можно лучше. Обширное тушение выполнялось трубочистами. Еще в первой половине XIX века в Западной Европе стало понятно, что прежний способ борьбы с пожарами устарел и более не отвечал потребностям городов. В крупных городах начали создавать и нанимать профессиональные пожарные бригады, но хорошо подготовленные специализированные организации в небольших городах стоили слишком дорого, что привело к созданию «добровольных пожарных бригад», члены которых при поддержке общественности регулярно проводили обучение с помощью пожарных насосов и других инструментов. У них имелась своя униформа и соблюдалась дисциплина. Первые подобные объединения были основаны в русском городе Ржеве в 1840 году и в Германии в 1841 году.



Рисунок 11. Стрекавин. Портрет Антона Эдуарда Праля (Strekavin, picture 98)

Figure 11 Strekavin. Portrait of the second Burgermeister of Mitau Anton Prahl

Рисунок 12. Стрекавин. Насос для ручного управления, созданный Карлом Метцем около 1865 года (Strekavin, picture 101)

Figure 12 Strekavin. A pump for manual operation created by Carl Metz around 1865

Рисунок 13. Немецкий фотограф Альфред Кюлевиндт (1870–1945). Рыночная площадь в Митаве. Около 1914 г. (Kühlewindt)

Figure 13 German photographer Alfred Kühlewindt (1870–1945). Market square around 1914

Рисунок 14. Стрекавин. Пожарная наблюдательная вышка в Митаве (Strekavin, picture 99)

Figure 14 Strekavin. A fire lookout tower in Mitau

Рисунок 15. Стрекавин. Первый паровой насос в Митаве около 1880 г. (Strekavin, pict. 102)

Figure 15 Strekavin. The first steam pump in Mitau around 1880

Вторым бюргермайстером Митавы (нем. *Mitauschen Bürgermeister*) был Антон Эдуард Праля (нем. *Anton Eduard Johann David Prahl*; 1831–1879) (Рис. 11), мастер из пекарни на Почтовой улице напротив Шведгофской улицы (нем. *Schwedhofsche-Strasse*, латыш. *Svētes iela*). После крупного пожара Праля на свои средства в 1864 году отправился в Германию к известному разработчику пожарных насосов (Рис. 12) и организатору пожарных обществ Карлу Метцу (нем. *Carl Metz*; 1818–1877). В Гейдельберге он основал машиностроительную компанию, разработал и построил насосные системы, которые в то время произвели революцию в пожаротушении. Праля обучался там несколько месяцев и купил для Митавы три новейших насоса. Вернувшись в Митаву, он вскоре получил средства, чтобы пожарная команда начинала работу, и возле Рыночной площади (Рис. 13) построил пожарную наблюдательную вышку (Рис. 14). 25 октября 1865 года была утверждена добровольная пожарная дружина. В Митаву затем прибыл Карл Метц и обучал пожарных новым методам пожаротушения. В 1880 году в Митаве установили водопровод с уличными гидрантами для тушения пожаров. Инновацией был купленный паровой насос (Рис. 15), который через 14–15 минут после запуска печи давал достаточное давление пара, чтобы начать работу. Насос тянули 2–3 лошади. Вскоре приобрели второй паровой насос, и примерно в 1890 году

установили примитивную электрическую сигнализацию для 10–12 ведущих пожарных, чтобы они со специальными рогами вызывали других пожарных.

8 мая 1858 года был заложен первый камень в здание первого Рижского вокзала и началось её строительство на средства частного капитала Общества Рижско-Динабургской (до 1893 г.) железной дороги. Спустя три года была построена первая в Прибалтике железнодорожная линия Рига–Динабург общей протяжённостью в 217 км. Движение по дороге официально было открыто 25 сентября 1861 года. Одновременно со строительством железной дороги Рига–Митава, в 1868 году по проекту архитектора Отто Дитце (нем. *Otto Dietze*, латыш. *Otto Dīce*; 1833–1890) построили кирпичное здание пассажирского вокзала, которое принадлежала Риги-Орловской железной дороге. В управлении этой казённой железной дороги находились линии на территории Лифляндской, Витебской, Курляндской, Могилёвской, Ковенской, Смоленской, Орловской губерний и связывающая центральные районы России с портами на Балтийском море – Ригой и Либавой. В европейских городах повсеместно появлялись зеленые зоны, основанные на развитии естественных наук (Ozola, 2019, 621). В 1869 году Александровский (теперь Земгальский) проспект от вокзала в направлении к центру города вел до перекрёстка пяти улиц, где присоединялась Набережная улица с бульварной аллеей на берегу Дриксы и образовала связь с парком возле дворца. В регулярной планировочной системе Митавы проспект был трактирован перпендикулярно Большой улице (Рис. 16). Город обрел связь с российской железнодорожной сетью. Многие художники, которые раньше путешествовали на лошадях и останавливались здесь, теперь в удобной повозке проезжали Митаву. Художественная жизнь постепенно прекратилась.



Рисунок 16. Фрагмент плана Митавы. Апрель 1903 (Hertel, 1903)

Figure 16 A fragment of historical map of Mitau. April 1903



Рисунок 17. Фотограф Луи Глейзер (около 1842–1911) из Лейпцига. Елененская улица в Майоренгофе. Около 1905 г. (Glaser)

Figure 17 Photographer Louis Glaser (around 1842–1911) from Leipzig. Helen Street in Majorenhof. Around 1905

Рисунок 18. Стрекавин. Передвижная раздевалка для особо застенчивых пловчих на побережье Рижского залива (Strekavin, picture 35)

Figure 18 Strekavin. Mobile changing room for swimmers on the coast of the Gulf of Riga (Strekavin, picture 35)

Рисунок 19. Стрекавин. Женский купальник конца XIX века (Strekavin, picture 34)

Figure 19 Strekavin. Ladies' swimsuit from the end of the 19th century

Рисунок 20. Стрекавин. Пожилая немка в черной одежде и с накидкой на плечи и молодая стройная дама, затянута в плотном корсете (Strekavin, picture 23)

Figure 20 Strekavin. An elderly German woman in black clothes and a cape on her shoulders and a young slender lady tightened in a tight corset

Во второй половине XIX века люди все чаще летом стали посещать места для купания на побережье Рижского залива (Рис. 18), и каждое лето тихие провинциальные рыбацкие деревни привлекали гостей не только из Риги и других мест, но и из России. «Мадамы» в Митаве также стали навязывать своим мужьям строгое требование «отправить» семью в Эдинбург (Дзинтари), Майоренгоф (Майори) (Рис. 17), Бильдерлингсгоф (Булдури), Дуббельн (Дубулти), Карлсбад (Меллужи) или Ассерн (Асари). Мужья должны были арендовать для своих семей дачи на Рижском взморье, но сами они, будучи загруженными покупателями, приезжали туда в субботу вечером или в воскресенье, чтобы затем вернуться в Митаву в воскресенье вечером. Внешность женщины того времени сильно отличалась от внешности современной женщины (Рис. 19). У некоторых молодых стройных «Fräulein», обязательно затянутых в плотные корсеты, талия была сжата до такой степени, что, глядя на них, приходилось беспокоиться о том, не сдует ли ветер верхнюю часть тела с нижней половины (Рис. 20). Более полные женщины делали всё возможное, чтобы талия выглядела как можно тоньше. Они так сильно стягивали свои корсеты, что едва могли дышать. Женщине не позволялось показывать ноги больше, чем тонкий носок туфли, иначе ее наряд считали бы очень легкомысленным. Длинные женские юбки достигали земли и во время прогулки собирали уличную пыль, что, конечно, быстро делало ее

негигиеничной и уродливой. Но это была мода! Конечно, не все женщины в Митаве следовали капризам моды. Это было неприемлемо для работающих женщин. Пожилые немки из «хороших» кругов одели простую черную одежду, часто с накидкой на плечи, и демонстративно не следовали моде (Рис. 20). Голову покрывала черная шляпа, чьи черные ленты были завязаны под подбородком, или черная широкая, плоская шляпа с лентами и искусственными цветами, которые также обычно были черными.



Рисунок 21. Стрекавин. Первый деревянный пароход «Mitau» (Strekavin, picture 31)

Figure 21 Strekavin. The first wooden steamboat “Mitau” for traffic to Riga Seaside

Рисунок 22. Стрекавин. Духовой оркестр (Strekavin, picture 15a)

Figure 22 Strekavin. A brass band

Рисунок 23. Фотограф Ф. Киперт. Деревянный мост у Митавского дворца. 1874 (Kiepert)

Figure 23 Photographer F. Kiepert. Wooden bridge near Mitau Palace. 1874

Рисунок 24. Стрекавин. Прочный железный мост через Дриксе (Strekavin, picture 92)

Figure 24 Strekavin. The strong iron bridge over the Driksa

Поскольку грунтовая дорога на Рижском Взморье была неудобной и дорогой, вскоре создали удобное, дешевое движение вдоль реки Лиелупе. Во времена герцогов примитивные мосты установили на деревянных столбах, и при ледоходах они часто повреждались. В XIX веке был построен более устойчивый деревянный мост зеленого цвета, который был защищен ото льда тремя большими «блоками». Возле моста через Лиелупе, недалеко от Городского сада, построили причал. Вскоре появился довольно примитивный деревянный пароход «Mitau» (Рис. 21), который двигался с помощью боковых колес или «крыльев» и был украшен множеством пестрых флагов. По воскресеньям на борту корабля находился духовой оркестр (Рис. 22). В начале 1880-х годов лед плавал в таких количествах и так быстро, что «связки» моста (Рис. 23) были повреждены, и существование моста оказалось под угрозой. Царское правительство построило через Дриксе прочный железный мост (Рис. 24), который служил до Первой мировой войны, когда русские войска отступили по нему в 1915 году и мост затем был взорван.

В частных садах в Митаве примерно с 1894 по 1900 год звучала особая тихая музыка. Специальные металлические или деревянные держатели с 10–20 колокольчиками различных размеров из белого и синего стекла (Рис. 25) были прикреплены к высокой листве деревьев. Ветер качал деревья, и звук колокольчиков, собранный в аккорды, создавал нежный, хрупкий гул. Богатые дворяне и купцы во дворах и садах содержали роскошных павлинов, но эта мода исчезла. В Митаве было много маленьких, толстеньких собак с короткими седыми волосами и темно-серой или черной мордой и ушами. Голова у мопсов была широкая, морда тупая, глаза большие и круглые. В окне на первом этаже углового дома на улицах Почтовой и Обводной (нем. *Wasser-Srtasse*, латыш. *Valņa iela*) дети часто видели сидящего мопса с трубкой во рту. В трубке не было табака, но она курила. Дети дразнили собаку. Она яростно залаяла, рот открылся, и трубка упала. Собака поспешно нашла её и стиснула зубы, но, продолжая лаять, труба снова упала. В конце XIX века полицейский Грубе имел домашнюю ворону «Якоб», которая летала по всему городу, но как только она видела своего хозяина на улице, птица сразу же приземлялась на его плечо или на шляпу полицейского. «Якоб» любил яркие вещи и был очень вороватый. Однажды утром заметили ворону в столовой. «Якоб» через открытое окно приземлился на стол для завтрака и попытался вытащить яркую ложку из сахарницы. Потревоженная птица с ложкой в клюве хотела убежать, но торопилась, ложка была недостаточно хорошо зацеплена и упала на пол, а «Якоб» исчез вдали. Любой другой вороне пришлось бы заплатить своей жизнью, но что делать с полицейским?

Бюргеры хотели в Митаве наслаждаться удобствами и, сидя в теплой комнате, не открывая окна, смотреть на улицу с обеих сторон по всей ее длине, и знать, кто стучит у дверей дома, оставаясь невидимым для других. Все это было возможно благодаря специальному устройству «шпион» (Рис. 26), которое было прикреплено ко многим окнам домов, но исчезло в XX веке. С внешней стороны окна два маленьких зеркала в жестяной раме были прикреплены под прямым углом друг к другу и под углом 45 градусов к окну так, что один конец улицы можно увидеть через окно в каждом из них.

Пожилая баронесса фон Клопман (нем. *von Klopman*) любила животных и жила на первом этаже дома архитектора Курляндской губернии Адольфа Винберга (*Adolf Winberg*; 1816–1895) на Замковой улице (Рис. 27). Через открытое окно были видны две маленькие обезьяны в большой деревянной клетке. Прохожие останавливались и иногда дразнили маленьких зверей, которые знали, как избавиться от надоедливых зрителей. Они быстро сделали естественную процедуру в своей маленькой ладони и бросили продукт в зрителей, достигнув хороших хитов. Со

временем клетка обезьяны исчезла из окна, но появилась проволочная клетка с серым попугаем, который обеспечил себя специальным «удовольствием». На другой стороне улицы из отеля «Linde» (Рис. 27) часто выходили официанты, чтобы со специальным согласованным свистом вызвать с близлежащей парковки конный экипаж для нужд гостя. Попугай научился свистеть как официанты, и часто вызывал по 2–3 экипажа подряд к отелю. Кучеры экипажей, конечно, возмущались, когда оказывалось, что это никому не требуется. Когда выяснилось, кто обманывал кучеров, попугая пришлось перенести вглубь квартиры.



Рисунок 25. Стрекавин. Держатели с колокольчиками из стекла (Strekavin, picture 9)

Figure 25 Strekavin. Special holders with glass bells

Рисунок 26. Стрекавин. Специальное устройство «шпион» (Strekavin, picture 8)

Figure 26. Strekavin. A special device “spy”

Рисунок 27. Блехманн. Отель «Linde» (на лево) и дом архитектора Курляндской губернии Адольфа Винберга (на право). Около 1902 г. (Blechmann, 1902)

Figure 27 Blechmann. Hotel “Linde” (to the left) and the residential house of the Courland province architect Adolf Winberg (to the right). Around 1902

Рисунок 28. Стрекавин. Первый автомобиль в Прибалтике (Strekavin, picture 48)

Figure 28 Strekavin. The first car in the Baltics

В доме Винберга также жил дорожный инженер Курляндской губернии, богатый горожанин Мальчевский (польск. *Malczewski*). Около 1896 года он за границей купил первый автомобиль в Прибалтике (Рис. 28). Однажды на Замковой улице появился легкий экипаж, не имевший лошади впереди и похожий на странную повозку с черной лакировкой и желтыми деревянными колесами, покрытыми резиной (без пневматики). Впоследствии такую резину начали использовать возницы конных экипажей. В машине высоко на диванчике сидел водитель и менял положение некоторых рычагов. Машина относительно медленно двигалась по улицам. Два места находились позади, и там сидел хозяин с женой. Тележка вздрагивала, издавала шум и выпускала поток вонючих газов. Люди с удивлением наблюдали за ней, мальчишки бежали следом, но лошади, боясь таких повозок, которые обходились без их помощи, всякий раз поднимались на дыбы и бросались в сторону. Какое-то время машина катилась с шумом и рычанием, но затем она внезапно задрожала и остановилась. Водитель и пассажиры обошли повозку и посмотрели во все

её щели и отверстия в кузове так, как цыган смотрит на зубы лошади. После долгих усилий странная карета была починена и поехала дальше. Она некоторое время с перерывами ездил по улицам города и поехала домой, но здесь началась трагедия автомобиля. Чтобы подняться на Набережную улицу вдоль Замковой улицы и заехать в свой двор (слово «гараж» в то время еще не было известно), пришлось на набережной ехать по насыпи перед мостом. Однако, машина совершенно не годилась для езды в гору. Она остановилась, фыркнула и не двигалась. Водитель попросил зрительскую публику помочь, и для школьников этот был ожидаемый сигнал. Группа мальчишек, похожая на рой пчел, с криками «ура» толкала машину в гору, и двигатель помогал им в этом. Мальчевскому надоели вечные поломки, и машина стояла не использовавшаяся несколько лет. Он переехал в другой город, и вместе с ним исчезла и «первая машина в Митаве».

Митавскому немецкому ремесленному обществу, основанному в 1874 году, принадлежало на улице Дворцовой обширное клубное здание (Рис. 29) с большим залом (Рис. 30) и сад (Рис. 31). Дамы приходили в бальных платьях без рукавов, с большим вырезом или декольте сзади, дошедшего до талии, и длинным хвостом (Рис. 32). Несмотря на отсутствие рукавов, руки женщины не были голыми. Мода требовала, чтобы руки были зажаты над локтем в длинных белых кожаных перчатках, застегнутых множеством маленьких пуговиц. Дама держала в руке веер, который обычно складывался. «Кавалеры» должны были прийти во фраке (Рис. 32) и складном цилиндре (*chapeauclagne*) в руках. Женщине не разрешалось держаться, кроме как руками, одетыми в белые кожаные перчатки. Высокий, жестко накрахмаленный воротник, накрахмаленная рубашка на груди и браслеты во время быстрого танца, конечно, вскоре промокали от пота, поэтому «настоящие кавалеры» брали с собой 2–3 запасных воротника, а также браслеты. Все это «вооружение» делало танец довольно утомительной и сложной процедурой. Подобные уродства происходили в основном на дворянских и немецких буржуазных событиях. Латышская аудитория появилась только в конце XIX, но высокие входные цены на концерты для обычных людей были недоступны. В то время никто не задумывался о предоставлении искусства и культуры для рабочих. Представители новой латышской буржуазии и трудящиеся танцевали в обычной одежде, что могли себе позволить, и такие танцевальные вечера не считались «балами».



Рисунок 29. Николай Хюбнер. Здание Немецкого ремесленного общества. 1900 (Hübner)

Figure 29 Nicolai Hübner. The building of the German Crafts Society in Mitau. 1900

Рисунок 30. Стрекавин. Зал Немецкого ремесленного общества (Strekavin, picture 1)

Figure 30 Strekavin. A hall of the Mitau German Crafts Society

Рисунок 31. Сад Немецкого ремесленного общества. Около 1902 г.

(Mitau. Gewerbe Verein)

Figure 31 The garden of the Mitau German Crafts Society. Around 1902

Рисунок 32. Стрекавин. Одежда кавалер и дам в конце XIX века

(Strekavin, pictures 24, 25)

Figure 32 Strekavin. Gentleman's tailcoat and ladies' ball gown in the late 19th century

Рисунок 33. Архитектор Владимир Всеволодович Стойновский (1850–1898). Здание клуба русского общества «Кружок». Около 1900 г. (Blechmann, 1900)

Figure 33 Architect Vladimir Stoinovsky (1850–1898). A club of the Russian society "Kruzhok". Around 1900

Рисунок 34. Стрекавин. Портрет оперного певца Карла Йорна (Strekavin, picture 3)

Figure 34 Strekavin. Portrait of German-American opera singer Karl Jörn

Ко второй половине 1880-х годов в программу мероприятий общества «Кружок» входили встречи, семейные и дамские вечера, театрализованные постановки, и места в старом здании всем уже не хватало. Члены общества «Кружок» заключили договор об аренде помещений ремесленников несколько раз в неделю. Однако, оказалось, что двум обществам в одном здании не ужитья. К началу 1890-х годов заведение Ширкенгофера обанкротилось, и было принято решение купить с аукциона его имущество и выстроить там новое здание. В 1891 году земельный участок с садом и бывшим рестораном перешел к русскому обществу «Кружок». Архитектор строительного отделения Воронежского губернского правления Владимир Всеволодович Стойновский (1850–1898) разработал проект клуба (Рис. 33) на Почтовой улице, и двухэтажное здание, выполненное в формах традиционной русской архитектуры, в 1893 году было построено. В новом здании разместились просторные помещения: карточная комната, салон для дам, бильярдная и большой зал со сценой. Кроме того, концерты, лекции, театральные представления можно было устраивать и в бывшем обширном саду Паули (исчезли павильоны и беседки, вход на территорию клуба был дозволен только членам клуба и их семьям, а вместо ресторана появился кегельбан), где продолжали действовать зимняя и летняя сцены. На одной из них обосновался прозванный «отцом латышского театра»

Адольф Алуна́н (латыш. *Ādolfs Alunāns*, в старой орфографии: *Adolf Allunan*; 1848–1912) с труппой. Актёр, режиссер, драматург, руководитель Рижского Латышского театра перебрался в Митаву, где театральные представления организовали русские или немецкие передвижные театральные труппы, а также местные немецкие и русские дилетанты. Жизнь общества «Кружок» стала протекать с большим размахом. В преддверии Русско-Японской войны деятельность «Кружка» была ограничена, а затем приостановлена, но здание не пустовало. Здесь встречались представители всевозможных партий, русских, немецких, латышских, еврейских и проходили политические дебаты. Культурная жизнь вернулась сюда только в 1908 году.

Замечательные залы общества «Кружок» и немецких ремесленников освещались керосиновыми лампами, прикрепленными к стенам. Конечно, их нельзя было гасить и снова зажигать для каждого акта и перерыва, поэтому театральные представления и концерты проходили только в освещенном зале (старое здание городского театра тогда было уже снесено). Митаву несколько раз посещал любимый ученик Ференца Листа (венг. *Ferenc Liszt*, нем. *Franz Liszt*; 1811–1886), знаменитый пианист Альфред Райзенауэр (нем. *Alfred Reisenauer*; 1863–1907), который в своей жизни путешествовал по всему миру и страдал от «лихорадки лампы», и знакомый шведский певец, композитор, музыкант, скульптор Свен Шоландер (швед. *Sven Scholander*; 1860–1936), который свои песни проводил на древний струнный щипковый инструмент лютня (нем. *Theorbe*, итал. *tiorba*, фр. *théorbe*, англ. *Theorbo*). В Митаве также выступали русский композитор, пианист, дирижёр, музыкальный педагог Антон Григорьевич Рубинштейн (1829–1894) и уже седой испанский скрипач Пабло де Сарасате (исп. *Pablo Martín Melitón de Sarasate y Navascués*; 1844–1908), звезда Петербурга, скрипач венгерского происхождения, композитор, педагог, дирижёр Леопольд Семёнович Ауэр (также Лев Семёнович; нем. *Leopold Auer*, венг. *Auer Lipót*; 1845–1930), одаренный польский скрипач-виртуоз еврейского происхождения Бронислав Губерман (польск. *Bronisław Huberman*; 1882–1947), оперная певица, прозванная «шведским соловьём», Енни Линд (швед. *Jenny Lind, Johanna Maria Lind*; 1820–1887) и всемирно известные певцы – рижане еврейский тенор Герман Ядловкер (1877–1953) и лирический тенор, немецко-американский оперный певец, преподаватель вокала Карл Йорн (нем. *Carl*, также *Karl Jörn*; 1873–1947) (Рис. 34).

Митавчане в конце XIX века увлекались новой модой и заимствовали ее, скорее, даже не из Парижа, а из Вены. В большей или меньшей степени это было простым копированием. Мужчины хотели выглядеть как венские франты. В их гладкой причёске волосы были разделены с обеих сторон, и

путь в середине начинался ото лба и достигал затылка. Борода, вероятно, была введена в моду самим австрийским императором Францом Иосифом I (нем. *Franz Joseph I*; 1830–1916), который ее носил. Длинные усы в то время закручивались или выпрямлялись горизонтально, с острыми концами. Усы не носили только католические пасторы и актеры. Вместо очков стало модно носить так называемое пенсне (фр. *Pince-nez*, нем. *Kneifer* или *Klemmer*, латыш. *degunkniebis* («носик»)) в металлической, роговой и золотой оправе или очки, закрепленные на верхней части носа. Были также прямоугольные стекла и рамы. Эта «шпилька для носа» могла легко выпасть, поэтому ее обычно прикрепляли к пуговице на куртке с помощью черного шелкового шнура. Широкая черная шелковая лента была прикреплена к кольцу на одном конце булавки «шпильки для носа». На голове носили шляпу – горшок с узкими краями или цилиндр. Чаще всего носился полуцилиндр – всё в светлых тонах. Основным цветом моды был бежевый – между кремовым и песочно-желтым. Широкий галстук делался из пестрого шелка. Жесткие накрахмаленные воротники были либо крутые, очень высокие, либо отложные и очень низкие. Короткие и узкие жакеты закрыли очень высоко. Фланцы были узкие, но брюки были шире. Внизу они были широко сложены так, что над узкими туфлями с длинным тонким носом можно было видеть носки. Костюмы (исключая траурные костюмы и фраки) были сшиты из светлых тканей. Популярны были ткани с большим квадратным рисунком (Рис. 35). Не только старики, но и молодые люди ходили с тростью в руках, потому что это было востребовано модой. Трости должны были быть как можно более толстыми с ручкой из кости или серебра. Трость из дерева была бы слишком тяжелой, поэтому она изготавливалась из разных видов тростника, включая бамбук и другие. Пальто часто имели широкую накидку (или пелерину) сверху. Иногда у одного пальто было две или три накидки – друг на друга. Платье женщины вне бала было плотно закрытым, воротник вокруг шеи был очень высоким, почти до ушей, поэтому внутренняя часть была натянута очень тонкими опорами из металла или рыбьей кости. В начале 1890-х годов рукава были узкими. В моду вошли так называемые «ветчинные рукава». Они были узкими от ладони до локтя, но сверху внезапно оставались очень широкими, поднимались значительно выше плеч и действительно напоминали форму ветчины. Как и вся женская одежда, пальто должно было плотно облегать тело. Также носились черные накидки, расшитые с черным жемчугом разными узорами, или сделанные из клетчатой одежды. Шапки женские были широкими, довольно плоскими, с бархатными или шелковыми цветами и лентами. Около 1895 года странное «любительское искусство» женщин неожиданно вошло в моду. Женщины делали цветы из древесной

стружки для летних шапок. Древесные стружки разной ширины можно было купить в магазинах. Вырезанным лепесткам соответствующую форму присвоили со специально разработанным и нагретым утюгом. Ранее обе стружки были окрашены в нужный цвет. Листья расположены в цветах, они были оснащены искусственными пыльцевыми стеблями. Ловкость рук, к сожалению, не всегда ассоциировалась с художественным вкусом и навыками сочинения, поэтому эти произведения в основном выглядели ужасно.

Митаву посетили владельцы проекционного аппарата (большие «волшебные лампы») и показали так называемые «туманные картинки». На экране отображались цветные слайды, миниатюры, написанные на стекле. В программе показывали юмористические картинки, фотографии путешествий, научных экспедиций. «Показы» специально объявлялись, чтобы учителя поощряли бы учащихся посещать их. Для «туманных картинок» зал должен был быть полностью затемненным, но в то же время сидеть тихо в темноте ни молодые, ни старые люди еще не привыкли. Во тьме все виды нарушений имели место. На балконе сидящие из бутылок, которые приносили с собой, капали воду на головы зрителям внизу. Косички сидящих спереди часто связывались веревками или привязывались к стульям. Иногда происходило такое волнение, что нужно было успокоить шумную аудиторию. В конце одного сеанса зрителям показали «живые картинки». Глаза привыкали видеть слабые, двигающиеся изображения на маленьком экране. Прибывающий поезд подошел к платформе вокзала и остановился. Высадились также «дрожачие» пассажиры, но тогда последовал самый большой «эффект»: фильм повернули назад, и недавно высадившиеся пассажиры, отступив назад и дрожа, сели на поезд, и он снова уехал прочь. Аудитория взревела! С этим закончился первый кинопоказ в Митаве. В 1904–1905 годах на ярмарках появились «кинотеатры» в деревянных домиках. Названия были – «Биоскоп», «Киноскоп», «Кинематографист». Через несколько лет в городе уже были постоянные кинотеатры, и эпоха «туманных картинок» закончилась.

В Митаве были не только придворные музыканты, но и дворовые музыканты. Чаще всего «дворовую музыку» играли виртуозы музыкальных шкатулок (шарманок), которые несли свои инструменты на спинах, от одного двора к другому. Были также коробки для игрушек, настолько большие инструменты, что их на велосипедной тележке перевозили маленькие ослы или пони, что доставляло детям огромное удовольствие. Музыканты иногда прибывали в сопровождении акробатов. Они демонстрировали простую акробатику на одеяле, выложенном на земле, «проглатывали» копыя и делали подобные фокусы. Двор посещали

темноволосые, бородатые мужчины и выпускали маленькую обезьянку, но сами играли на инструменте, которая напоминала скрипку и жестоко гремела. Наибольшее удовольствие от музыки доставлял человек-оркестр с большим барабаном на спине, гармоникой в руке, блестящим шлемом с множеством колокольчиков на голове и ногой управляемыми листами (Рис. 36). Во двор приходил представитель дворового театра с коробкой, висящей через плечо, с гармоникой в одной руке, а в другой – трехчастной, покрытой тканью рамой, высотой с человека, сначала играл на гармошке, затем прятался за щит, который также был покрыт тканью сзади. Вскоре над рамой появлялась маленькая кукла «Петрушка», которая справлялась со ссорами и драками, со своей тещей и с полицией, затем со смертью и, наконец, с самим дьяволом. Эти скромные священники искусства позже конкурировали с граммофонами, фонографами (Рис. 37) и радио.



Рисунок 35. Стрекавин. Мужские костюмы из светлых тканей
(Strekavin, pictures 21, 22)

Figure 35 Strekavin. Men's suits made of light fabrics

Рисунок 36. Стрекавин. Человек-оркестр в Митаве (Strekavin, picture 17a)

Figure 36 Strekavin. One Man-Orchestra in Mitau

Рисунок 37. Стрекавин. Первый фонограф в Митаве (Strekavin, picture 49)

Figure 37 Strekavin. The first phonograph in Mitau

Рисунок 38. Стрекавин. Летние шляпы дам в Митаве (Strekavin, pictures 28, 29, 30)

Figure 38 Strekavin. Summer hats for ladies in Mitau

Рисунок 39. Стрекавин. Женские брюки и юбка-брюки (Strekavin, pictures 26, 27)

Figure 39 Strekavin. Women's trousers and skirt-trousers

Примерно с 1907 года в Митаве работу начал отдел Императорского Русского музыкального общества со своей музыкальной школой, имевшей собственный симфонический оркестр, в котором несколько лет также играл художник Александр Александрович Стрекавин. В 1910 году в Риге начинал свою преподавательскую деятельность довольно часто бывавший в Митаве с 1909 по 1914 годы элегантный, стройный брюнет, знаменитый польский пианист, дирижёр Юзеф Сливиньский (польск. *Józef Śliwiński*, нем. *Joseph von Slivinski*; 1865–1930), и он же иногда руководил этим оркестром. Сливиньский особенно хорошо исполнял произведения Фридерика Шопена (польск. *Fryderyk Franciszek Chopin*; 1810–1849) и был очень востребован в обществе, умел много рассказывать о своих концертах

и путешествиях. В то время концерты давали австрийский пианист, педагог, композитор Артур Шнабель (нем. *Artur Schnabel*; 1882–1951), венесуэльско-американская пианистка, прозванная королевой и Валькирией фортепиано, композитор Мария Тереса Карреньо Гарсиа де Сена (исп. *María Teresa Carreño Garcíade Sena*; 1853–1917), а чуть позже российско-американский пианист, музыкальный педагог Александр Кириллович Боровский (1889–1968), который родился в Митаве и получил среднее образование в Либавской гимназии. Представительница семьи певцов из Митавы Варвара Шетнева-Пожарская, дочь псалмопевца православной церкви Шетнева, жена чиновника Пожарского, выступала на концертах и работала в Риге и Митаве в качестве преподавателя пения. Шетнева-Пожарская В. К. в латышском обществе Юлгана по случаю юбилея Романовых исполняла роль Антонида в опере Михаила Ивановича Глинки (1804–1857) «Иван Сусанин». Потомок русской семьи Замараевых, певица Ольга Замараева, получила образование, жила в Санкт-Петербурге, выступала и занималась преподаванием пения. Ее никогда не слышали в Митаве, хотя она посещала своих родителей каждый год. Тем не менее, она пела в Риге, где, очевидно, имела контакты с латышским обществом. Один из самых ярких и любимых латышских композиторов Эмилис (Эмиль) Дарзиньш (латыш. *Emīls Dārziņš*; 1875–1910) в своем обзоре высоко оценил песню композитора Эмиля Мелнгайлса (латыш. *Emīls Melngailis*; 1874–1954) в исполнении Ольги Замараевой. Из известных латышских деятелей искусства Митаву посетили певица (меццо-сопрано) и преподаватель вокала Мальвина Вигнер-Гринберг (латыш. *Malvīna Vīgners-Grīnberga*; 1871–1949) и певец-баритон Адолфс Кактыньш (латыш. *Ādolfs Kaktiņš*; 1885–1965), который в 1903–1912 годах выступал на рижских театральных сценах, в 1913 году пел в Нюрнберге, до Первой мировой войны посетил Митаву, в 1915–1917 годах был в Санкт-Петербурге. К слову, он был первым исполнителем роли Лачплесиса (латыш. *Lāčplēsis*, в переводе – разрывающий медведя) в драме латышского поэта, драматурга, переводчика, политика и общественного деятеля Райниса (Янис Плиекшанс, латыш. *Jānis Pliekšāns*; 1865–1919) «Огонь и ночь» (1910).

В России 300-летие династии Романовых должно было отмечаться в 1913-м году. В Митаве, для участия в концерте с оркестром и объединенными хорами во дворце, были мобилизованы все лучшие музыкальные силы. Какие же оркестры действовали в Митаве с 1895 по 1914 год? В конце XIX века в Митаве было несколько музыкальных (певческих) обществ. При латышских обществах под руководством Валдманиса действовал небольшой оркестр смешанного состава, который лучше всего исполнял танцевальную музыку, и в Лангервальдском парке

на сцене аранжировал балы. В Митавском гарнизоне было два пехотных полка, и у каждого из них тоже был свой оркестр, в которых участвовали многие латыши. Пожилой немец *Günther* дирижировал оркестр 114-го Новоторжского пехотного полка, а после выхода на пенсию ему много лет принадлежал магазин музыкальных инструментов на Почтовой улице, и он арендовал пианино. Последний дирижер перед Первой мировой войной латыш Юрис (Жорж) Бухардс (латыш. *Juris (Žoržs) Buhardts*; 1860–1922) был автором Латышского народного марша для духового оркестра и всегда помещал свою фотографию на обложку своих произведений. Капельмейстер (нем. *Kapellmeister*; перевод с латынского *magister capellae*) 180-го Вентспилсского пехотного полка, дислоцированного в Митаве, был невысокий, но очень физически крепкий Закржевский (польск. *Zakrzewski*). Оркестры играли правильно, но особо не выделялись.

В начале XX века во всем мире, в том числе и в Митаве, появился неприятный модный каприз – на женских шляпах стали помещать чучела птиц, их крылья или головы. Для оформления использовали маленьких и яркоокрашенных птиц. Сколько же птиц в мире было уничтожено, чтобы украсить женские шляпы! Даже в маленькой Митаве у головы женщины была своя «птица» (Рис. 38). В магазинах ассортимент таких товаров был большой. Недаром мировые общества защиты животных и любители природы начали активную борьбу с этим варварством. Эта мода через несколько лет исчезла, но увлечением в 1908–1911 годах стали натуральные или искусственные, неестественно длинные кудри на головах женщин. Таким образом, объем головы увеличивался, и шляпы также должны были стать больше. Вскоре женские шляпы были сделаны в хорошей корзине рыночного размера. Некоторые шляпы были похожи на гнездо аиста. Большие шапки делались на проволочной раме и украшались искусственными цветами и фруктами, широкими лентами и мехами. Размер шляп должен был соответствовать размеру иголок, чтобы шляпы могли удерживать прическу. Для крепления шляпы использовались 2–3 иглы длиной 50–60 см. Один конец иглы обычно был в форме широкой, красиво украшенной пуговицы или шарика, а другой остался острым. Произошли несчастные случаи, так как концы длинных игл торчали из их шляп и были опасны для соседей красавиц в кинотеатрах, трамваях, встречах, но особенно для тех, кто хотел поцеловать красавиц. На рынке появились маленькие резиновые шарики, которые пробивали острые концы игл. Однако, чем больше были шляпы, тем уже были юбки. Около 1910 года юбка была уже настолько узкой, что такая «модница» больше не могла ходить свободно, а только «печатать». Портные облегчили им жизнь, сделав разрезы на одной или обеих сторонах подола юбки, что позволяло женщинам садиться на поезд или трамвай, поднимаясь по

лестнице. Данное неудобство в одежде было устранено парижским портным Полом Пуаре (фр. *Paul Poiret*; 1879–1944), влиятельнейшей фигурой в мире моды первой четверти XX века. Он объявил «революцию моды», создал первое платье без корсета и в начале 1911 года изобрел юбку-брюки (Рис. 39). Они еще не напоминали брюки, которые красавицы носят в спортивной одежде. Юбка была оторвана от колен и затянута вокруг каждой ноги вниз. В Митаве только одна эксцентричная чиновница осмелилась появиться в таком костюме. За ней бегали дети, и пешеходы останавливались на улице, увидев её. Высокие летние шляпы в форме корзины стали ниже и намного шире в 1911 году. Дамы украшали их страусиными перьями либо естественным путем, либо расправляли их имитации во всех цветах. Такие шляпы были намного красивее, чем прежде и напоминали те, что можно было увидеть на картинах живописца Питера Пауля Рубенса (нидерл. *Peter Paul Rubens*; 1577–1640), или большие «флорентийские» шляпы. Мужская мода до Первой мировой войной отличалась лишь жилетками из темного бархата, украшенными ручной вышивкой и представляла собой маленькие цветы. Мужские костюмы не были такими эксцентричными, как 15 лет назад. Летом носились панамские соломенные шляпы, изготовленные из экзотических соломинок, чтобы мягкую шляпу согнуть. После «освобождения» она восстанавливала свою первоначальную форму. Тесная связь Митавы с Санкт-Петербургом, Рижским Взморьем и Ригой, куда приезжали всемирно известные артисты из Европы, позволяла оживленным митавчанам одеваться по моде того времени, принимать участие в культурные мероприятия.

Выводы *Conclusions*

С изменением статуса города Митава привлекла внимание властей Российской империи, и с XIX века в городе началось время значительных изменений, которые изначально повлияли на планировку городской среды и ее эстетику. В первой половине XIX века в обществе произошли социальные изменения. В Европе и России транспорт и промышленность быстро развивались во второй половине XIX века и способствовали структурным и функциональным изменениям в городском планировании, в том числе в Митаве. Культурные мероприятия и технические инновации повлияли на повседневную жизнь населения и каждого человека в отдельности. Рисунки художника Стрекавина – это документация различных жизненных событий в Митаве и свидетельства изобретений и новаторских решений. Анализируя изменения, происходящие в городе в

XIX веке и в начале XX века, и информацию о технических нововведениях, включенную в «Атлас заметок о древней Митаве», видно, как меняются привычки горожан одеваться и подбирать костюм в зависимости от ситуации.

Summary

Mitau gained the status of a provincial city and attracted the attention of the authorities of the Russian Empire, and since the 19th century, a time of significant changes began in the city, and it initially influenced urban space and its aesthetics. In the first half of the 19th century, social changes took place in society. In Europe and Russia, transport and industry developed rapidly in the second half of the 19th century and contributed to structural and functional changes in urban planning, also in Mitau, which had a close connection with Riga, resorts in Riga Seaside and Sankt-Petersburg, where many world-famous musicians and artists from Europe came. Cultural events and technical innovations have influenced the daily life of the population and of each individual. Until the First World War, inhabitants of Mitau not only became actively involved in various cultural events and societies but also followed the fashion trends in Europe at that time.

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REVIVAL OF UKRAINIAN BLACKSMITHING: ART PRACTICES AND EDUCATION DURING THE 1970S–2010S

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Abstract. *The article is aimed at making an outline of the revival process experienced by professional Ukrainian blacksmithing art, development of which resumed in the 1970s, after an imposed pause that had lasted for over half a century. The facts from the history of development and further evolution of blacksmithing are publicized, as well as the reasons that caused almost complete distinction of traditional blacksmithing handicraft and professional blacksmithing art as a result of suppression by the Soviet power. The objective of the research is a real-time coverage of the stages of revival of blacksmithing craft, art, and education. Extermination of the traditional blacksmithing education that existed in Ukraine since the 16th century and up till 1917 took its toll. Young blacksmiths were trained in the forges where they worked as assistants. The first departments of artistic blacksmithing were established in the colleges, technical schools, institutes, and academies only in the late 1980s. Lack of specialized education was a drawback for Ukrainian blacksmithing comparing to the European states where there was no gap in training practice. In the article, the most well-known modern Ukrainian blacksmithing educational institutions are analyzed on the basis of historical method, chronological and cultural approaches.*

Keywords: *blacksmithing, craft, fine art, innovations, traditions.*

Introduction

At the present time, the issues of Ukrainian blacksmithing art and craft are extensively studied in the context of art history, culturology, pedagogy by both Ukrainian and foreign scholars. However, it may be stated that comparing to the research works covering other sectors of visual arts—fine art, graphics, sculpture, architecture, decorative and applied arts—and pedagogy, the number of such publications is relatively small.

Thus, the main aim of the article is to give an outline of the revival process of Ukrainian blacksmithing art with the special focus on blacksmithing education. The material in this paper would allow making art historical, historical, economic, and cultural conclusions about the staged development of the blacksmithing art in Kyiv during the 1970s–2020s—the period that was labeled a “Renaissance” of Ukrainian blacksmithing. (The period of the late 19th and the turn of the 20th

century is considered the initial era of rapid development of blacksmithing art and craft linked to the intensive urban construction.) Therefore, another aim of the article is to present a periodization of blacksmithing art in Ukraine that runs contrary to some scholars' opinions and to determine the main consequent stages of revival of blacksmithing art and education in Ukraine.

The final and ultimate aim of the research is to argue that revival of blacksmithing art and education was one of the ways of regaining and rediscovering their national identity for Ukrainians.

Literature Review

Sporadic works that directly or indirectly cover the development of blacksmithing and jewelry making crafts, as well as the art of blacksmithing since the Middle Ages and up till now are chosen as a basis for this research. While the number of studies on the Ukrainian blacksmithing school is scant, there are hardly any publications that address blacksmithing education.

Among the scholars, there exists a range of opinions, sometimes contrasting, regarding the role and meaning of decorative and applied arts within the broader framework of general revival of Ukrainian culture in the post-Soviet time. For instance, according to Lilia Pasichnyk (2017), Kateryna Horchar (2013), and Serhiy Luts (2013), extermination of the blacksmithing art tradition did not significantly affect the general course of cultural development of the state. I, on the contrary, support Joseph Hofmarcher (2019) in his opinion that blacksmithing culture can bring a huge potential to society.

Lesya Smyrna (2017) first stated that turning to applied arts in general and blacksmithing in particular was one of the ways of regaining their national identity for Ukrainian artists during the late Soviet era.

Methodology

Methodology of the study includes historical, chronological, cultural approaches. Studying archival sources and analyzing the artworks completed between 1970 and 2020 allowed to form a broad socio-cultural context and present the real picture of the “Renaissance” of Ukrainian blacksmithing art. Also, a widely used method of interview with the participants of art process enables making a detailed account of the establishment and development of the departments of ironwork and artistic blacksmithing in the contemporary Ukrainian secondary and higher educational institutions.

Results of the Research

Contrary to some established views, I consider the 1970s to be not the initial period of contemporary Ukrainian blacksmithing art, but only a stage in a larger-scale cultural process. I argue that the first period of Ukrainian blacksmithing art and craft started as early as the 15th century and ended in the first half of the 19th century. The second stage unfolded from the mid-19th century and up to 1917. Forcible extermination of blacksmithing art marks the third stage-the gap between 1917 and 1970. The fourth stage of rapid blacksmithing development started in the 1970s and ended in the 2000s. The fifth and last stage of stagnation and certain decline has lasted since the early 21st century and up to the present time.

Naming the 1970s a stage and not the starting point in evolution of Ukrainian blacksmithing art enables to identify and see the elements of traditional Ukrainian ornaments and symbols. If perceived out of the context of tradition, these elements could not be correctly interpreted and evaluated. Moreover, asserting a continuity of blacksmithing tradition reinforces the rediscovery of Ukrainian national identity that is ongoing and often painful process.

As the result of the research, it was determined that the main centers for blacksmithing education in contemporary Ukraine are Kyiv, Lviv, Uzhhorod, and Ivano-Frankivsk.

Discussion

The process of studying the issues of revival and development of Ukrainian blacksmithing art proved that in the period since the 1917 and up to the 1970s not only traditional profession was exterminated, but also the very school of blacksmithing mastery and tradition of blacksmithing education that, in essence, is a prolonged direct personal communication of master and disciple. While development of blacksmithing, one of the most significant applied arts, was put on a long pause, some young researchers, including Lilia Pasichnyk (2017), Kateryna Horchar (2013), and Serhiy Luts (2013), still controversially consider that this inflicted little damage to the general development of Ukrainian culture.

It could be argued that revival of blacksmithing art in Ukraine went a unique and fundamentally original path. Lesya Smyrna in her monographic study *A Century of Nonconformism in Ukrainian Visual Art* (Smyrna, 2017) convincingly states that blacksmithing was one of the ways to regain national identity for Ukrainians.

Yet, none of the Ukrainian or foreign researchers pointed out that turning to blacksmithing as an art during the 1970s-1990s-the period of mature socialist realism-was a manifestation of dissent and nonconformity for an artist in Ukraine. Also, none of the scholars acknowledged that development of blacksmithing in

Kyiv region was prompted by return of professional artists blacksmiths (and not craftsmen) to the forges. In contrast to Kyiv region, in other areas of Ukraine certain level blacksmithing craft was preserved and professional skills were passed to students, nevertheless never reaching the level of artistic creativity.

As for the role of art education in the process of rediscovering the core of national identity, Tetiana Zuziak (2017) argues that motivational and psychological components of the educational process (i.e. motivation of the educator) correspond to how social role of an art teacher is identified by professional community and society in general. Thus, this proves that if no skilled artist blacksmith was present, the development of the profession and art was hampered for over half a century. Ukrainian situation is unique in this sense, as while there was considerable social demand for the profession (as it was proven by subsequent blacksmithing revival of the 1990s–2000s), the enthusiasts who reinstated blacksmithing education often had no teaching tradition to turn to due to this void period. Lilia Pasichnyk (2017) provides evidence of extermination of the school of artistic blacksmithing.

Instead, very plausible is the assumption of Joseph Hofmarcher (2019) about the huge potential that blacksmithing culture can bring to society. Hofmarcher, a founder and curator of the Symposia Iron Camp (Ybbsitz, Austria), aimed at development of metal design and handicraft in Europe, established a prolific cooperation with the Blacksmith's Festival in Ivano-Frankivsk. This cooperation is a convincing example of socio-cultural component of blacksmithing, when Ukraine is integrated into All-European development of blacksmithing.

As for the periodization of emergence and development of the school of blacksmithing art there is no one established opinion in academic community. Most of the authors, i.e. Volodymyr Mogilevskyi (2012), Ihor Rudenko (200), and Anastasia Varyvonchyk (2020) support the view that development of Ukrainian school of blacksmithing art started in the 1970s.

Such notion that there was not any tradition of blacksmithing art in Ukraine is erroneous. Historical data prove quite the opposite, as the blacksmithing craft existed in Ukraine since the establishment of Kyiv Blacksmithing Guild in 1494–1497. This initial period of Ukrainian blacksmithing art and craft ended in the first half of the 19th century. The second stage of rapid industrial development of many Ukrainian cities that involved blacksmithing unfolded from the mid-19th century and up to 1917. The third stage when blacksmithing art was exterminated by the Soviet authorities (though blacksmithing as a craft was preserved at a certain level) may be described as a void between 1917 and 1970. The fourth stage of rapid development of blacksmithing as an art started in the 1970s and ended in the early 2000s. The fifth and last stage of stagnation and certain decline has lasted since the early 21st century and up to the present time.

Blacksmithing craft in the territory of contemporary Ukraine should be considered one of the oldest of existing to this day. “Archaeological expeditions in the Ukrainian lands during the second half of the 19th century prove that the first blacksmiths worked with copper there some five thousand years ago” (Rohotchenko, 2018, p. 97). Archaeological discoveries dating back to the times of Kyivan Rus include ironwork, predominantly household items and instruments: axes, spades, scythes, horseshoes and harnesses, various instruments for carpentry and masonry. Technology of professional metalwork has been known in Ukraine since the 11th century B. C. Blacksmithing craft was a natural trade for the inhabitants of the lands of modern-day Ukraine. The main contributing factor for that is the rich bed of iron ore in the land that enabled smelting-the core component of blacksmithing craft. Practically from the times of Kyivan Rus our domestic blacksmithing should be divided into two trends: craft and art. Active construction of the churches in the cities of Chernihiv, Pskov, Novgorod, Kyiv during the heyday of Kyivan Rus involved blacksmithing guilds: carpenters, bricklayers, masters working with the plinth bricks. Blacksmiths produced complex metal constructions supporting the walls of the new buildings, as well as the metal ladders and staircases, constructions supporting the arch roofs, domes, window bars-all marked with the high level of mastery and use of progressive technologies of welding (Rohotchenko, 2018). It may be stated that almost since the times of Kyivan Rus forges became professional productions, thus, a blacksmith was a key professional in villages and cities. Socio-economically, it meant the start of professional Ukrainian blacksmithing.

“Magdeburg rights granted to Kyiv in 1494–1497 by the grand duke of Lithuania Alexander Jagiellon and confirmed by the Lithuanian dukes in 1516 and 1544 had a considerable impact on formation of the trade guilds in the lands” (Kucherenko, 2006, p. 10). Trade guilds were subordinated to the new city administration-the magistrate. Historical records mention that blacksmiths had to produce a certain number of axes for the governor, like the shoemakers-a certain number of boots. This fact captures the exact date when existence of the blacksmithing profession in the present-day Ukraine was first mentioned in written sources. The characteristic feature of the blacksmithing craft and art in 17th–18th-century Ukraine was strengthening of guild relations. Forges gradually transformed into the mini-factories (in the modern sense of the word).

Further evolution of blacksmithing takes place during the early 19th century. “In the period of 1800s–1820s there existed 15 trade guilds and 56 blacksmithing shops in Kyiv” (Rohotchenko, 2017, p. 69). Life of Kyiv blacksmithing guild for a long time was chronicled by the blacksmiths themselves. The chronicle of the Kyiv Blacksmithing Guild provides a detailed picture of life and work of the blacksmiths from, for instance, 19th century.

The early 20th century, specifically the year 1902, marked an end of existence for the Kyiv Blacksmithing Guild. According to the archival documents, the Guild payed significant sums in taxes and conducted legal and educational activities. The advent of capitalist relations in Ukraine ruined the traditional patriarchal handicraft structure. Construction boom at the turn of the 20th century acted as a catalyst for development of blacksmithing art. The owners of the forges started their individual businesses. Professional artists were employed for the blacksmithing enterprises. In a short period, since the 1880s and up to the Bolshevik revolution of 1917, Ukrainian blacksmithing produced hundreds of highly artistic metalwork pieces that entered the pages of history of European blacksmithing art. The number of forges went four times higher. This was the last boost for the blacksmithing production and art in the well-developed industrial complex of then-capitalist Ukraine. After 1917, almost all major private enterprises in Ukraine ceased their operation. Village forges and forges at the industrial plants, naturally, still existed, yet the blacksmithing art came to a halt.

“The void in Ukrainian blacksmithing lasted till 1970” (Rohotchenko, 2017, pp. 69). Blacksmithing art in Ukraine was revived in the Kyiv region when a number of artists started their professional careers. For instance, Oleksandr Milovzorov returned to Kyiv after graduating from the Leningrad Vera Mukhina Higher School of Art and Design. That year he met Oleh Stasiuk who worked in the newly opened forge at the open-air museum Pyrogiv. Other artists gradually returned to the forges in different cities and villages across the state. “Blacksmithing spread over Ukraine at an unstoppable pace, bringing more and more blacksmithing cells back to life” (Rohotchenko, 2017, p. 69).

Rapid development of Ukrainian ironwork in general and its Kyiv cell in particular, as well as establishment of the new forges in almost all regions of the country went in parallel to the emergence and development of the modern-day independent Ukraine.

Ukrainian Art historian Ihor Rudenko (2006) states that during the Soviet times, machine-building industry and metallurgy were stuffed with various equipment, including the forging hammers. Industrial forging, unlike metal art, was widely used at the plants and factories for pressing the details of industrial and agricultural equipment. When the Soviet imperial industrial behemoth collapsed in the early 1990s giving way to the economy based on the small self-accounting enterprises, there was no problem to buy a pneumatic hammer at a price of scrap metal. Thus, across Ukraine, people with some fantasy independently opened small forges. “By the mid-1990s, wrought ironwork, though still low-quality, but nevertheless in sufficient quantity became available for interior and exterior decoration of office buildings and private mansions” (Rudenko, 2006, p. 299).

In Ukraine, blacksmithing art since the 1980s and up to the 2000s flourished for a number of reasons. One of them is the finally gained freedom to choose the means of conveying an artistic design. Unlike the Baltic states where blacksmithing art actively evolved since the 1960s, Ukrainian artists experienced a number of restrictions. During the 1980s, ceramics and metal art prevailed over the other decorative and applied arts. “Anatoliy Haidamaka and Oleksandr Milovzorov, while communication with the other artists of the Department of Monumental art of the Union of Artists in Kyiv, promoted blacksmithing art at all times” (V. Melnychenko, personal communication, May 10, 2017).

By the early 2000s there started a true “Renaissance” of blacksmithing art in the cities of Ukraine, linked to the metalwork being in fashion, whereas the trade of village blacksmiths was almost lost. Its traditions were maintained mostly by the individual enthusiasts who were amateur blacksmiths. The next 15 years would be the most prolific period in the development of Ukrainian blacksmithing. Dozens of professional festivals, including Ivano-Frankivsk festival and Donetsk festival being the major ones, as well as the group and solo exhibitions, participation of Ukrainian blacksmiths in the international exhibitions and forums, allowed Ukrainian blacksmithing art to reach the European level.

As for the educational process in blacksmithing, for a period of time it failed to progress at the same rate as the blacksmithing art. The issue of professional blacksmithing training has not been sufficiently covered in Ukrainian art history. Rostyslav Shmahalo, a researcher from Lviv, is one of the most prolific promoters of educational process. “Art education as a manifestation of a human creative potency is aimed to become the center of any education. Blacksmithing, enamel art, gem cutting, goldsmithery experienced a revival during that period,” writes R. Shmahalo in the foreword to the second volume of his *Encyclopedia of Metal Art* (Shmahalo, 2015, p. 6).

Professional training in blacksmithing art and craft started in the times of emergence of capitalist relations in Ukraine. In the 19th century, forges transformed into the big shops where blacksmithing neighbored with other kinds of metal processing. They were not just enterprises but the first schools of blacksmithing. “At the shops, there operated the institutions, the structure of which resembled the one of the vocational education. An adult blacksmith had several students assigned to him” (Rohotchenko, 2018, p. 99). The training process took a substantial time (up to ten years).

That is how the ‘homegrown’ masters received their training. Economic component of development of such enterprises allowed spending significant sums on specialized training of homegrown professionals who were obligated to work at this production in the future. It may be concluded that despite emerging capitalism and market relations, the feudalistic component was still strong, with the training conditions of a student when he could not move to other enterprises

being a proof for that. Nevertheless, that was the time when the gradual changes started. In the times prior to Bolshevik revolution, blacksmithing training at the powerful industrial productions of Ukraine received a lot of attention. Specialized professional courses existed at the Kyiv docks and at the Kyiv Locomotive and Railcar Repair Plant, as well as at the other sites. The pause in education of artist blacksmithing lasted from 1917 till the late 1980s. However, despite all obstacles, at the present time art education in blacksmithing profession has won a right to life.

Contemporary state of training to become an artist blacksmith generally is unsatisfactory. As of today, there are only a few higher educational institutions providing such training. Primarily, the reason for that is the crisis in economy that has lasted in Ukraine for the recent seven years. Blacksmithing is an applied art that requires large investment. Unlike other kinds and genres of fine art where a student mostly only needs a room to study, a computer, canvas, oils, yarn or clay, a blacksmith needs a furnace, coal, equipment, heavy hammers, a park of various machines, specific premises equipped with powerful air extraction system, painting room, cameras for drying the painted elements or artworks, and many other items and spaces necessary for the production. Also, the price for the metal itself is high, as well as for the electricity and security. All of the above made blacksmithing education an unaffordable burden for the most secondary and higher educational institutions. Many departments that train artists blacksmiths, were either transformed or closed. The process was painful and underwent several stages. At first, the teachers attempted to make painting and creating blacksmithing designs on paper a substitute for the ceased practical training in the forges. As for the jewelry making that caused the situation when no practical skills were gained. For instance, it was the case for the Art Metal Department of the National Academy of Culture and Arts Management: after the closure of the shops, the students were offered to develop 3D-designs of their works. Any real experience both with jewelry making and blacksmithing is gained only through the practical studies. The next important factor that reduced the number of art metal departments to a minimum was very realistic prospect of unemployment for the graduates. That was the worst part of the law of markets. Professional artist blacksmith became unneeded for the industrial production, as it was in the 1990s and early 2000s. Designers of the last decade has learned to make skillful compilations of some else's achievements from the professional catalogs. Thus, the cheap mass production pieces (cast or pressed elements) caused the eventual result: the mass produced pieces were reasonably cheaper.

Lviv National Academy of Arts has been and still is a major art educational institution. The history of founding of the Art Metal Department dates back to the 1989 when the head of the Lviv State Institute of Decorative and Applied Arts (former name of the institution) initiated establishment of the Section of Metal

Art at the Department of Glass Art. Emmanuil Mysko was a big admirer of blacksmithing. According to his resolution of February 18, 1993, the section was reorganized into the Art Metal Department. The first teachers at the Department were: head of the Department, associate professor S. Moroz (1989–2001), senior lecturer V. Sholomiy (1989–2007), lecturer Ye. Bokhoniuk (1991–1995), assistant professor B. Romanets (1993–2009), assistant professor Pleshakov (1992–2012) who taught metal processing technologies. At the present time, the teachers at the Art Metal Department are: head of the department, Honored Worker of Arts of Ukraine I. Frank; Honored Artist of Ukraine O. Bonkovskiy (Head of the Department in 2001–2004); Honored Artist of Ukraine, assistant professor S. Volskyi; senior lecturer A. Sterniuk; Honored Artist of Ukraine, assistant professor O. Ivasiuta; lecturer S. Rozhkovskiy.

The staff of the department puts significant effort in promoting the metal art. For instance, in 1996, for the first time in the country, the personnel of the Department of Art Metal organized public presentations on blacksmithing performed by the lecturers and students in the central part of the city of Lviv that boosted blacksmithing festival movement in Ukraine. The Art Metal Department of the Lviv National Academy of Arts is a permanent partner of such festivals. Achievements of the teachers and graduates of the Department are a prominent phenomenon in the history of contemporary Ukrainian blacksmithing (Lviv National Academy of Arts, n. d.).

Mykhailo Boychiuk Kyiv Institute of Decorative and Applied Art and Design is one of the oldest art educational institutions in Ukraine. The Department of Ceramics, Decorative Sculpture, Woodworking Art, and Art Metal originated from the experimental workshops founded back in the 1936-as a Department of Ceramic Artworks. In 2014, Department of Ceramics, Decorative Sculpture, Woodworking Art, and Art Metal was established as a result of merging the two departments: Department of Ceramic Arts and Sculpture and Department of Woodworking Art and Art Metal. Since 2010, the Department has the graduate specialization “Art Metal” that includes programs “Jewelry Art” and “Decoration of Arms”.

The students learn blacksmithing, jewelry making, decoration of arms, and are trained to create highly artistic sacred artworks. Mykola Ponomarenko was one of the first teachers at the department. After his passing away, Illya Popiuk became a primary “metal tutor” as he is not only an established artist blacksmith but also authored a number of research works on the history of Ukrainian repoussé and chasing (Mykhailo Boychiuk Kyiv Institute of Decorative and Applied Art and Design, n. d.).

The Transcarpathian Academy of Arts was founded under the Resolution of the Ministry of Education and Science of Ukraine No. 424 of April 13, 2016. Transcarpathian Art Institute was renamed and changed the type of education it

offers. In its educational activity, the institution trains specialists in several specializations, including 023 “Fine art, decorative art, restoration” (painting, graphics, ceramic art, blacksmithing art, woodworking art, restoration). It should be emphasized that this is the first higher educational institution in Zakarpattia region. It was established in March 1946 under the name Uzhhorod State Art and Industrial School with Adalbert Erdeli, famed painter of the region, as its head. Blacksmithing art has always been a traditional handicraft and professional creative activity in Zakarpattia. The lecturers do their best to train young blacksmiths in accordance with the traditional art of the region (Transcarpathian Academy of Arts, n. d.).

Vasyl Stefanyk Precarpathian National University in Ivano-Frankivsk devotes many efforts to educating the artists blacksmiths. The aim and scope of the course “Metalworking Art” is researching the processes of emergence and development of the metalworking art in Ukraine: studying the main techniques, kinds, and forms of the metal artworks, as well as their functionality and aesthetic features. Vitaliy Horodetskyi teaches art metal at the department.

Ivan Trush Lviv State College of Decorative and Applied Arts has a special place in the history of art education of Ukraine. For the 139 years of its existence, the concept of this art school remained unchanged. The initial aim was to establish an educational institution the program of which would be true to the foundations of the national culture. This center of art education is linked to formation of pedagogical and aesthetic methods of training the talented youth. The students of the college graduate in the following specializations: monumental and decorative painting, monumental and decorative sculpture, fashion design, architectural design, ceramic art, art metal, woodworking art, weaving art, graphic design, artworks’ restoration.

The students of the Borys Grinchenko Kyiv University study graduate in specializations that are closely linked to blacksmithing-enamel artist and jewelry artist. The Department of Fine Art of the Art Institute of the Borys Grinchenko Kyiv University was established as a result of reorganizing the Department of Fine Art and Design in 2013–2014. The Department graduates student specializing in “Fine Art.” The main aspects of education are: “Art” (with the specialization in “Fine Art,” with the list of respective arts). Graduates are awarded the academic degree of BA in Fine Art, with their professional qualification being the “artist.” “Jewelry Art” and “Jewelry Designer” are minor specializations. The aim of implementation of “Jewelry Art” into the curriculum is to train the professionals able to create unique, exclusive jewelry pieces and implement their designs from scratch. Jewelry design is a synthetic art that organically combines both the skills in jewelry craft and truly artistic knowledge and skills. Unfortunately, the blacksmithing is not in the list of the specializations provided by the institution (Borys Grinchenko Kyiv University, n. d.).

Igor Sikorsky Kyiv Polytechnic Institute is one of the oldest higher educational institutions in Ukraine. In 1998, Kyiv Polytechnic Institute celebrated its 100th founding anniversary. In 1994, the dean of the Faculty of Engineering Physics of the Kyiv Polytechnic Institute A. Siomyk initiated establishing the specialization “Art of Metal Casting and Jewelry Casting” at the Department of Foundry Engineering. Thus, traditional training of the foundry engineer now includes new theoretical and practical courses: history of the art of metal casting and basics of art history, metallurgy of precious metals, technology of forming the shape of the molds, metals, alloys, and technologies of the art of metal casting and jewelry casting.

At the Department, a forge opened that was organized by the well-known Kyiv architect and blacksmith Volodymyr Diomin who worked there himself. The forge served as an illustrative example of production of the blacksmithing artwork and prompted many students of the Kyiv Polytechnic Institute to open the enterprises of their own. Unfortunately, as of today, the forge is no longer operational (Igor Sikorsky Kyiv Polytechnic Institute, 2006).

Among the higher vocational schools training blacksmithing professionals, the School No. 5 in the city of Vinnytsia should be highlighted. Adapted to the market conditions, several specializations are united there: sanitary system and equipment fitter, electro-gas welder, and metal art maker. Such method, undoubtedly, is progressive in some sense as the youth gains skills under the supervision of professional educators. Also important are the lectures in general disciplines, including the art history classes.

Conclusions

General ascent of Ukrainian blacksmithing (in particular, in Kyiv region) at the beginning of the 21st century that entered the art history of Ukraine as the period of “metal art Renaissance” experienced a slowdown since 2010 and up till now. Despite all hardships encountered by Ukraine in the recent years (war, market instability, pandemic that lowered the number of commissions significantly) the blacksmithing trade manages to survive. Sporadically, metal artworks are still presented at the art exhibitions of various levels, though the former glory of blacksmithing art seems to be over for now.

Nevertheless, it would be too soon to proclaim the forcible pause in the development of blacksmithing art to be a full stop. The issue of proper blacksmithing education and training remains one of the most painful problems of the contemporary time. The European state of over 40 million people definitely needs more educational centers that would teach the youth the ancient profession. This, in turn, would give a new impetus to the blacksmithing art so that there

would be no need for the art historians of the future to invent the term “second revival of Ukrainian blacksmithing.”

Presented periodization serves as the best argument allowing to single out blacksmithing art as a highly valuable piece of Ukrainian national identity, as it was one of the first arts, targeted by the Bolsheviks in 1917. The following “void” of 70 years, tirelessly maintained by the Soviet authorities, and eventual heyday of the 1990s–2000s after gaining independence are telling illustrations of suppression and further revival of a key component of national culture. Initially, period of mature socialist realism, turning to blacksmithing was a manifestation of dissent and nonconformity for an artist in Ukraine. After Ukraine gained independence, a number of annual blacksmithing festivals was organized in different regions of the state and options for artist blacksmith’s training emerged. Thus, it is clear that there exists both practical and cultural demand for artists blacksmiths in society.

The present findings could be included in the courses on art history in specialized educational institutions, and will be valuable for compiling the textbooks on the history of visual art.

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ИННОВАЦИОННЫЕ ФОРМЫ ДЕЯТЕЛЬНОСТИ ВИННИЦКОГО ОБЛАСТНОГО ХУДОЖЕСТВЕННОГО МУЗЕЯ КАК ВАЖНОГО КУЛЬТУРНО-ОБРАЗОВАТЕЛЬНОГО ЦЕНТРА РЕГИОНА

The Innovative Forms in the Activity of Regional Art Museum of Vinnytsia as the Important Regional Center of Culture and Education

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Abstract. *The article has revealed and founded the innovative forms in the activity of Regional Art Museum of Vinnytsia. The research methodology is based on the systemic, structural, functional and active approaches. It makes possible to analyze the development and functions of Regional Art Museum of Vinnytsia, to determine the main directions, types of work and innovative forms of the museum activity as well as to show the role and significance of such important regional cultural and educational establishment. It is admitted that due to the introduction of innovative forms and modern technologies the museum has transformed its activity and has remained relevant to the contemporary audiences.*

Keywords: *Regional Art Museum of Vinnytsia, innovative forms, activity, projects, art, guide tour, audience.*

Введение **Introduction**

Тенденции развития культуры и искусства конца XX – начала XXI в. обуславливают переосмысление места и роли музеев в современном мире. Согласно принципам новой музеологии, эти учреждения являются не только хранилищами культурных ценностей, научно-исследовательскими центрами, но и превращаются в социокультурные институты, способствующие развитию и удовлетворяющие потребности современного общества. Для полной интеграции в окружающее пространство и

максимального привлечения посетителей к своей деятельности современные музеи используют инновационные формы и методы работы.

К таким учреждениям относятся и Винницкий областной художественный музей, деятельность которого играет важную роль в культурной жизни региона. В работе музейного учреждения происходят трансформационные процессы: музей, имея мощный культурный потенциал и представляя искусство края, пытается соответствовать требованиям времени, совершенствуя и расширяя направления и виды деятельности. Учитывая это, актуальным является исследование особенностей функционирования и развития Винницкого областного художественного музея в современных условиях, в частности, анализа инновационных форм деятельности музейного учреждения.

Цель исследования – выявление и обоснование инновационных форм деятельности Винницкого областного художественного музея.

Поставленная цель обусловила необходимость решения следующих *задач*: а) проанализировать степень научного изучения проблемы внедрения инновационных форм и методов в деятельность музейных учреждений в украинском искусствоведении и разработать методологические основы исследования; б) определить основные направления и виды работы Винницкого областного художественного музея; в) выявить инновационные формы деятельности Винницкого областного художественного музея.

Объект исследования – Винницкий областной художественный музей как важный культурно-образовательный центр региона.

Предмет исследования – инновационные формы деятельности Винницкого областного художественного музея.

Методы исследования ***Research Methods***

Методология исследования основана на использовании *системного, структурно-функционального и деятельностного подходов*. Применение в предоставленной работе системного подхода позволяет рассматривать музей не как самостоятельный отдельный объект, а в контексте многообразных культурных, общественно-политических, экономических факторов, где объект исследования выдается элементом целостной системы, отвечающей категории «культура». При этом музей выступает как система, характеризующаяся целостностью и, одновременно, многоуровневостью взаимосвязанных составляющих, подчиненных единой системе, общему процессу.

Структурно-функциональный анализ раскрывает функциональную значимость объекта, объясняет его природу и придает каждому его элементу определенное значение. Соответственно, структурно-функциональный подход дает возможность осуществить анализ функционирования Винницкого областного художественного музея, выявить инновационные формы деятельности музейного учреждения и показать роль и значение музея как важного культурно-образовательного центра региона.

Деятельностный подход широко используется в философии и культурологии. В рамках этого подхода культура осмысливается через понятие «деятельность», что трактуется как способ бытия человека в мире. В этом контексте внедрение инновационных форм и методов работы Винницкого областного художественного музея рассматриваем как деятельность, направленную на сохранение, передачу и создание новых общественно значимых ценностей.

При обработке архивных материалов в представленной работе используются *источниковедческий, историографический, исторический методы* для воспроизведения направлений и видов деятельности Винницкого областного художественного музея, освещения художественных проектов, выставок.

Обзор литературы *Literature Review*

Вопросы внедрения инноваций в музеях Украины и мира в различных аспектах освещаются в трудах украинских и зарубежных ученых. Так, В. Банах (Banach, 2016) на основе анализа работы музейных учреждений поднимает проблему введения в экспозиционную, научно-фондовую и образовательную деятельность музеев инновационных и интерактивных методик. М. Беликова (Byelikova, 2015) анализирует и определяет этапы внедрения инновационных технологий в музеях Украины. В диссертации И. Макаровой (Makarova, 2011) раскрыт вопрос введения новых мультимедийных технологий в работу художественного музея, музейной интернетизации и намечены пути модернизации музейных учреждений такого профиля. В исследовании И. Пантелейчук (Pantelejchuk, 2006) выявлены основные факторы трансформации музеев в контексте социокультурных процессов XX – начала XXI в., раскрыты возможности использования инновационных технологий в деятельности музейных учреждений. Е. Харченко (Harchenko, 2015) освещает вопросы внедрения современных инновационных технологий в культурно-просветительскую деятельность художественных музеев Украины в начале XXI в.

Фундаментальным является исследование И. Яковец (Yakovets, 2016), где выявлено и обосновано специфику развития и функционирования художественного музея конца XX – начала XXI в. Здесь автор подает обновленную и расширенную классификацию видов музейной деятельности, в частности, выделяет виды деятельности, которые активно развиваются – инновационную, международную, информационно-технологическую, социальную и музеефикацию. Исследовательница раскрывает инновационные формы деятельности современных музеев: музейный менеджмент, музейный маркетинг, фандрайзинг, PR-менеджмент.

Вопросы функционирования и развития, направления деятельности Винницкого областного художественного музея отражены в публикациях И. Безбаха (Bezbaх), Н. Безбах (Bezbaх, 2017, 2018), Ю. Белинской (Belinska, 2014), Т. Возной (Vozna, 2018), И. Левицкой (Levicka, 2014), Ю. Москвичевой (Moskvichova, 2015), О. Романишеной (Romanyshena, 2019), Т. Сидлецкой (Sidleckaja, 2020), справочных изданиях (Vinnychchyna muzejna, 2008).

Источниковедческую базу исследования составляет текущий архив Винницкого областного художественного музея, в котором содержатся отчеты о деятельности музейного учреждения, его сотрудничество с различными организациями, устав, данные о художественных проектах, выставках, справочные материалы о художниках, каталоги, буклеты, программы.

Однако, несмотря на констатацию наличия работ по проблемам функционирования Винницкого областного художественного музея недостаточно исследованными остаются вопросы внедрения инновационных форм в деятельность учреждения как важного культурно-образовательного центра региона.

Результаты исследования ***The Results of Research***

Прежде чем раскрывать очерченную проблему, стоит выяснить понятие «инноваций» и его применение в отношении музейного дела. В современных музееведческих исследованиях это понятие рассматривается в широком и узком смыслах. В широком смысле музейные инновации выступают как переосмысление места и роли музеев в культуре и обществе, что способствует успешному функционированию и развитию музейных учреждений в современных условиях и позволяет удовлетворять духовные потребности посетителей. В узком смысле понятие «инноваций» рассматривают как использование интернет-технологий, мультимедийных,

аудиовизуальных средств в экспозиционной и фондовой работе музеев (Ванах, 2016). В представленном исследовании объединены оба контекста и анализируются инновационные формы и методы, применяемые в основных видах деятельности Винницкого областного художественного музея, которые позволяют музейному учреждению отвечать на вызовы современности.

Винницкий областной художественный музей начал функционировать в 1918 г. как отдел Краеведческого музея. Основу коллекции отдела составляли полотна из частных собраний польских магнатов Бжозовских, Грохольских, Потоцких, Чарторыйских и других, которые владели именьями на Подолье. В 1987 г. отдел Краеведческого музея стал самостоятельной структурой и был создан Областной художественный музей.

Сейчас в коллекции музея насчитывается 7315 экспонатов XVII–XX вв. Экспозиционное пространство музейного учреждения составляют шесть залов, где представлено около 300 экспонатов, демонстрирующих богатые художественные традиции региона – прошлого и настоящего. В музее представлены произведения живописи М. Баччарелли, К. Брюллова, Ф. Воувермана, Ф. Коновалюка, Ж. Лампи Старшего, Л. Майе, А. Маневича, А. Новаковского, В. Орловского, И. Репина, Т. Ромбоутса, В. Тропинина и других художников.

Значительную ценность имеют коллекции графики XVIII–XX вв., народного декоративно-прикладного искусства (вышивка, ткачество, керамика, писанка, вышивка, резьба, Гута, роспись), станковой народной живописи, народной иконы.

В работе музейного учреждения органично взаимодействуют традиционная и динамическая составляющие. Традиционная составляющая музея представлена устоявшимися функциями хранения, коллекционирования, показа музейных экспонатов. Динамическая же часть состоит из инновационных форм и методов деятельности музейного учреждения, на которых и сосредоточено внимание в нашем исследовании.

Основные виды деятельности Винницкого областного художественного музея – научно-исследовательская, научно-фондовая, экспозиционная, культурно-образовательная, издательская – характеризуются внедрением инновационных форм и методов.

На современном этапе развития музея совершенствуется художественный и содержательный уровень экспозиции. В современном музееведении экспозицию рассматривают как специфическую информационно-художественную структуру, способную сочетать художественную и содержательную составляющие, а это сочетание, в свою очередь, «влияет на оптимизацию возможностей экспозиции в

осуществлении всего комплекса присущих музею функций, связанных с презентацией его коллекционного материала» (Yakovec, 2016, p. 254). Опираясь на указанную трактовку, следует отметить, что в Винницком областном художественном музее сочетаются два типа экспонирования – традиционный, что апеллирует к жизненному опыту посетителей, и новейший, что влияет на эмоциональное восприятие. Это означает, что в одном экспозиционном пространстве размещены как предметы в витринах и на стенах, так и экспонаты, свободно контактирующие со зрителями. Кроме этого, яркой презентации музейной экспозиции способствует использование современного экспозиционного оборудования – визуальных, аудиовизуальных средств, звуковых посредников, осветительного оборудования, экранов для проектора и тому подобное. Применение современных технических достижений в проектировании музейной экспозиции помогает повысить эмоциональную и познавательную ценность последней и углубить ее восприятие посетителями.

Сегодняшний день обуславливает активное использование музейным учреждением современных компьютерных технологий в различных направлениях и видах своей деятельности. Создана электронная база музея, персонал музея ведет различные картотеки, готовит к изданию каталоги, пишет научные публикации. Функционирует интернет-сайт Винницкого областного художественного музея (<http://artmuz.org.ua/>), где излагается информация об имеющихся экспозициях и музейных объектах. Активно используются возможности социальных сетей (Facebook, Youtube, Twitter), где анонсируется проведение различных мероприятий и проектов, происходит обратная связь между посетителями и персоналом музея.

Одной из важных инноваций в деятельности музеев в современных реалиях является создание на базе этих учреждений художественных и научно-образовательных центров. В Винницком областном художественном музее с 1993 г. работает Салон искусств, деятельность которого основана на синтезе различных видов искусства – живописи, графики, музыки, литературы. Здесь проводится целый ряд художественных проектов, характеризующихся разнообразием форм – музыкальные вечера, выставки, творческие встречи, деловые переговоры, арт-медиа акции. В мероприятиях Салона искусств принимают участие известные украинские музыканты, художники, мастера. Посетители привлекаются к участию в событиях, программах, дискуссиях. За 27 лет своего существования Салон искусств стал значимым культурным центром, известным не только в Украине, но и за ее пределами.

Новые формы культурно-образовательной деятельности реализуются в Центре музейной педагогики Винницкого областного художественного музея. Коллектив Центра музейной педагогики тесно сотрудничает с

учебными заведениями и учреждениями культуры Винницы и области. Здесь презентуются специальные музейные образовательные программы, созданные на основе учебных программ по дисциплинам «Художественная культура», «Эстетика», «История», «Литература» и др. (Levicka, 2014). Образовательные программы основываются на принципах музейной педагогики и содержат различные формы работы со школьниками – экскурсии, лекции, игры, конкурсы, мастер-классы. В рамках музейных образовательных программ происходит демонстрация различных техник и материалов, используемых в живописи, графике, скульптуре. Образовательные программы музейного учреждения созданы с элементами развлечений, что делает их доступными для восприятия ребенка, они способствуют развитию личности, активизации творческих способностей, формированию потребности обращаться к искусству и понимать его язык.

Важной современной формой культурно-образовательной деятельности, с помощью которой коллектив Центра музейной педагогики осуществляет воспитательную, эстетическую, творческую функции в работе с различными целевыми аудиториями, является деятельность музейных студий и мастерских. Их работа основывается на активном привлечении аудитории к сотворчеству. Так, в Арт-студии музея проводят арт-классы по живописи и графике, где посетители овладевают основами изобразительного искусства, осваивают различные техники росписи, копируя картины известных художников. В мастерской «Hand made» посетители знакомятся с различными жанрами декоративно-прикладного искусства – вышивкой, росписью писанок, петриковской росписью, бисероплетением, квиллингом, декупажем, скрапбукингом и другими, – и участвуют в создании предметов этого вида искусства.

Одной из ярких тенденций в культурно-образовательной деятельности музея является внедрение интерактивных форм: игры-квесты, перформансы, театральные представления, участниками которых являются посетители музея. Это соответствует новому коммуникационному подходу, сформировавшемуся в музееведении, согласно которому посетитель становится полноценным участником процесса коммуникации, собеседником и партнером музея, а не пассивным получателем знаний и впечатлений (Yakovets, 2016). Ярким образцом внедрения подобных форм работы музея является интерактивная художественная программа «Картина-пазл», созданная для детей младшего школьного возраста. Участники этой программы должны ответить на блиц-вопросы и быстро собрать пазл картины, которая является одной из самых известных в постоянно действующей экспозиции музея.

Реализации новых форм музейной коммуникации, индивидуальному подходу к каждому посетителю способствует новаторский проект

«Экскурсионные маршруты. Топ – 12». Стоит отметить, что этот проект реализуется в русле введения нового понимания миссии музея, согласно которому современный музей является площадкой для культурного диалога и взаимодействия между аудиторией и персоналом учреждения. В этом контексте используется метод медиации, как одна из форм культурно-образовательной деятельности музея, получивший распространение в странах Западной Европы в 1990-х гг. В Украине указанный метод до сих пор остается почти неизвестным. В широком смысле понятие «медиация» применяют для обозначения любого вида деятельности по передаче информации об искусстве и связанных с ним феноменами. В узком смысле «медиацию» понимают как особую инновационную практику взаимодействия с посетителем в музее, основанную на активном диалоге и обмене мнениями (Mörsch, Fürstenberg & Chrusciel, 2013). Опираясь на эту трактовку, отметим, что работник музея выступает медиатором, то есть посредником между музейными экспонатами и различными целевыми аудиториями. Задача медиатора - не столько предоставлять новые знания, сколько стимулировать диалог, обмен мнениями с посетителями музея, и это будет способствовать самостоятельному осмыслению произведений искусства. Взаимодействие между медиатором и посетителями основывается на знаниях и опыте зрителей.

В проекте «Экскурсионные маршруты. Топ – 12» объединены функции традиционной экскурсии с методом медиации и применяется узкий подбор экспонатов на определенную тему (Bezbaх, 2018). В каждом маршруте насчитывается не более 10 музейных экспонатов, что позволяет посетителю глубже погрузиться в мир классического искусства и понять идею, драматургию произведений. Каждая экскурсия в рамках проекта происходит в условиях свободного общения, диалога, результатом которого являются выводы посетителей о сущности и значении представленных художественных произведений.

Одним из приоритетных инновационных направлений деятельности Винницкого областного художественного музея является привлечение людей с повышенными потребностями к культурно-художественному достоянию и акцентирование инклюзии как сквозного приоритета развития общества. В указанном направлении музей успешно реализует целый ряд проектов и мероприятий. Так, в Винницком областном художественном музее действует программа «Вектор благотворительности», в рамках которой осуществляется работа с детьми с инвалидностью и лишенными родительской опеки, с взрослыми людьми, имеющими повышенные потребности. Для этих групп посетителей проводятся экскурсии, лекции-практикумы и мастер-классы по росписи писанок, лепке из глины,

тестопластике и т. д. (Romanyshena, 2019). Огромное внимание СМИ и широкой общественности привлекли пленэры детского визуального творчества «Прилетела Ласточка» (2018) и «Зимний натюрморт» (2019) для детей с аутизмом и лишенных родительской опеки. Данные мероприятия позволили участникам получить определенные знания и навыки по различным направлениям изобразительного искусства, способствовали социальной адаптации детей с особыми потребностями и сирот.

Одной из важных инновационных форм в деятельности Винницкого областного художественного музея, которая способствует популяризации учреждения в глазах населения, является активное сотрудничество со средствами массовой информации. Результатом такого сотрудничества стал художественный проект «Телемузей. История одной картины», который с 2008 по 2017 гг. демонстрировала Винницкая государственная телерадиокомпания (студия А. Секрет). Автором и ведущим программы был искусствовед, художник, директор Винницкого областного художественного музея И. Безбах. Телепрограммы были посвящены творчеству известных художников, искусству Подолья, проблемам функционирования музеев в современных условиях (Sidlecka, 2020). Кроме этого, большое количество художественных проектов и мероприятий, которые проходят в музее, регулярно освещается в региональных СМИ.

Винницкий областной художественный музей принимает активное участие в международной проектной деятельности. Так, в 2018 г. музейное учреждение стало партнером в Международном проекте «Искусство объединяет страны», в рамках которого проходила презентация украинско-литовской выставки «От Балтики до Буга» (Vozna, 2018). Этот художественный проект является яркой демонстрацией сотрудничества украинских музеев и художников с творцами из других стран. Ряд культурных проектов музей реализовал совместно с посольствами и культурными центрами Франции, Швейцарии, Германии, США, Испании, Канады, Словакии, Польши, Чехии, Беларуси, Молдовы и других стран.

Винницкий областной художественный музей активно участвует в формировании территориального бренда региона и города. Музей выступил одним из организаторов культурно-художественного проекта «Art PALACE» (2020), прошедшего в Тульчине во дворце Потоцких – архитектурном памятнике XVIII в., который является одной из самых привлекательных резиденций Винницкой области и требует масштабной реконструкции. В залах дворца были представлены картины из фондов музея, связанные с жизнью семьи Потоцких и историей Тульчина. Как видим, Винницкий областной художественный музей активно привлекается к сохранению и популяризации культурного наследия

региона. Его деятельность, как открытого динамического культурно-образовательного центра, интересна для различных социальных групп и способствует туристической и инвестиционной привлекательности Винницкой области.

Важной инновационной формой деятельности Винницкого областного художественного музея является внедрение маркетинговых технологий. Это способствует увеличению посещаемости музея, расширению музейной аудитории и распространению информации о музее среди широких кругов общественности. Маркетинговая стратегия музея реализуется путем сотрудничества музейного учреждения с другими музеями, учебными заведениями и учреждениями культуры, общественными организациями.

Выводы *Conclusions*

Таким образом, к инновационным формам деятельности Винницкого областного художественного музея относятся: совершенствование художественного и содержательного уровня экспозиции музейного учреждения, широкое применение современного экспозиционного оборудования, что помогает повысить эмоциональную и познавательную ценность экспозиции и углубить ее восприятие посетителями; создание интернет-сайта музея и активное использование возможностей социальных сетей, что способствует коммуникации посетителей с персоналом музея; создание в стенах музея Салона искусств и Центра музейной педагогики, в работе которых используются нестандартные и творческие подходы, интерактивные формы деятельности (игры-квесты, мастер-классы, перформансы, театральные представления); привлечение людей с повышенными потребностями к культурным достижениям и акцентирование инклюзии как сквозного приоритета развития общества; активное сотрудничество со средствами массовой информации, что способствует популяризации музея в глазах широкой общественности; осуществление международных и региональных партнерских проектов, что обуславливает увеличение посещаемости музея, расширение музейной аудитории; введение маркетинговых технологий. Внедрение инновационных форм и современных технологий в свою деятельность позволяет музею оставаться в центре внимания современного посетителя.

Summary

The latest trends of the cultural and artistic development have determined the new contemporary place and role for museums in the 21st century. Nowadays these institutions are not only depositories of cultural and artistic artifacts, they also have become the socio-cultural centers and can respond the requirements of modern society as well as influence to it development. One of such institutions is the Regional Art Museum of Vinnytsia, which activity plays the prominent role in the regional cultural and artistic events. The main activities of Regional Art Museum of Vinnytsia are scientific-research, scientific-reserved, exhibiting, cultural, educational and publishing. All of these aspects are characterized by using the innovative forms and methods. During the current period of the museum development, its staff is providing the modern equipment for improving the museum exhibitions, which helps to increase emotional and cognitive value as well as to make the perception deeper. The official web-side of the Regional Art Museum of Vinnytsia was created and the social networks have provided the vivid communication between the staff and the audience. The Art Salon and the Center of Museum Education were founded on the basis of the museum. They enrich the work of the museum with such creative approaches as quests, games, workshops, theater performance etc. One of the main directions of the Regional Art Museum of Vinnytsia is to involve people with disabilities into the cultural and artistic heritage and to promote the inclusion as an important aspect for the whole society. The museum actively cooperates with the media, it helps to inform community about the establishment and increases its popularity. Regional Art Museum of Vinnytsia is participated in some international and regional projects. It takes a part in the process of reservation and popularization of the regional cultural heritage. As the open dynamic cultural and educational center, the museum helps to create the tourist and invest attractions of Vinnytsia region. The introduction of innovative forms and modern technologies into its activity has transformed the Regional Art Museum of Vinnytsia and remain it relevant to the contemporary audiences.

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DIZAINA TENDENCES BĒRNU GRĀMATU ILUSTRĒŠANĀ - LATGALIEŠU VALODAS ĀBECES DIZAINA IZSTRĀDES PIEMĒRS

Design Trends in Children's Book Illustration - an Example of Latgalian ABC Design

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Abstract. *Children's book illustrations have always been an area that allows artists to make the most of their creative potential. Modern design trends for children's books are changing both in the world and in Latvia. The most relevant of these are minimalism and color purity, simplicity and quality. Research also highlights the choice of illustration and font style in favor of retro style and handwriting. Picture books on the topics of kindness and love are popular in terms of content. Activity books are useful for interactive communication. The aim of the article is to develop the concept of graphic design of the ABC of Latgalian language by studying design trends in children's book illustration and the supply and demand of children's Latgalian literature in Latvia. Research methods: theoretical - research and analysis of literature and Internet resources, empirical - questionnaire, analysis of analogues.*

Keywords: *graphic design, alphabet, literacy, children's book visual design, survey.*

Ievads

Introduction

Mainoties laikmetam, mainās arī tas, kā uztveram informāciju. Grāmatu dizains attīstās, lai turpinātu piesaistīt lasītājus. Vizuālie materiāli apkopo tekstu, lai dažu sekunžu laikā varētu iegaumēt informāciju un tādējādi atvieglo arī uztveri. Mūsdienu tehnoloģiju laikmetā vairs neviens nešaubās par attēla nozīmi informācijas ieguves procesā. Viens no provokatīvākajiem saziņas veidiem - ilustrācija pilda svarīgu uzdevumu - gan informē, gan izklaidē auditoriju, plaši integrējoties publicētajos plašsaziņas līdzekļos - plakātos, skrejlapās, žurnālos, grāmatās, mācību materiālos, animācijās, videospēlēs un filmās. Ilustrācija piesaista lasītāja uzmanību un paliek atmiņā (Advocate Art community, 2014).

Bērnu grāmatu ilustrācijas vienmēr ir bijusi joma, kas sniedz māksliniekiem iespēju maksimāli izmantot savu radošo potenciālu. Primāri bērnu uzmanību

grāmatai pievērš tās vizuālais noformējums. Attēliem bērnu grāmatās ir daudzas svarīgas funkcijas – papildinot tekstu, tie piešķir grāmatas saturam skaidrību, paskaidro nozīmi, kā arī audzina estētisko uztveri (Robertson, 2016). Tā kā bērniem vadošā ir vizuālā uztvere, bērni ar grāmatu komunicē vizuāli - ar attēlu palīdzību.

Kopumā ir svarīgi, lai grāmatas saturs veicinātu bērnu jūtīgumu pret dzīvi, cilvēci un dabu. Tas ir, ar grāmatas satura palīdzību, bērni mācās saprast citus cilvēkus, izjust dabas skaistumu, izprast kā citi jūtas, vērtēt dabu. Tāpēc, ja mērķis ir, lai bērni būtu aktīvi līdzdalībnieki grāmatu lasīšanas kultūrā, ir nepieciešams, lai tēli, sižets, nozīme un valodas lietojums būtu piemēroti bērniem (Çer, Sahin, 2016).

Ābece tradicionāli tiek uzskatīta par pirmo grāmatu, ar kuras palīdzību bērni apgūst lasītprasmi. Pētot ārzemju zinātniskos rakstus, šādas grāmatas tiek sauktas par alfabēta grāmatām. Tās ir grāmatas, kas ir izveidotas jaunākajiem lasītājiem un kurās parādīti alfabēta burti, kā arī ar tiem saistītie vārdi un / vai attēli, kas parasti sākas ar doto burtu. Dažreiz apgūstamā burta izcelšanai tiek izmantotas atskaņas vai tikai atsevišķi teikumi. Raksta teorētiskās izpētes analizē tiks izmantoti abi šie nosaukumi kā sinonīmi.

Mūsu piederību noteiktai tautai un nācijai raksturo valoda, ko bērns piedzimstot apgūst tiešā un netiešā veidā. Valoda ir nozīmīga tautas un valstiskuma saglabāšanā, jo īpaši tik salīdzinoši mazā valstī kā Latvija. Globalizācijas procesu ietekmē mazo tautu valodas kļūst īpaši saudzējamas, jo valodas nekopjot un nelietojot, tās izzūd. Šādā situācijā ir nonākusi arī latgaliešu valoda, kas nav obligāti apgūstama skolā, bet kuru cilvēki lieto ikdienas saziņā, šādi nododot valodu nākamajām paaudzēm. Vēlme saglabāt un popularizēt latgaliešu valodu, izveidojot metodisku ābeci bērniem un viņu vecākiem, noteica raksta autoru interesi par bērnu grāmatu dizaina tendencēm un ābeču dizaina specifiku.

Raksta mērķis – izpētot dizaina tendences bērnu grāmatu, tai skaitā - ābeču ilustrēšanā, izstrādāt latgaliešu valodas bilžu ābece grafiskā dizaina koncepciju.

Pētījuma metodes: teorētiskās - literatūras un interneta resursu izpēte.

Ābece grafiskā dizaina un satura mijsakarību raksturojums *Characteristics of the Correlation of ABC Graphic Design and Content*

Viens no visbiežāk sastopamajiem mijiedarbības veidiem starp vecākiem un viņu mazajiem bērniem ir bilžu grāmatu lasīšana, un alfabēta grāmatas ir viens no populārākajiem grāmatu veidiem, kas tiek izmantots šajās mijiedarbībās (Chiong, DeLoache, 2012).

Ābece tiek izmantotas, lai palīdzētu bērniem atpazīt burtus un saprast, kā burti tiek lietoti valodā. Ir plašs alfabēta grāmatu klāsts, sākot no

visvienkāršākajām, kurās redzams burts un objekti, kas sākas ar burtu, līdz ļoti izsmalcinātām grāmatām, kas stāsta stāstu, izmantojot alfabēta formātu. Dažas alfabēta grāmatas ir tematiskas, un, lai izceltu alfabētu, tajās tiek izmantoti pazīstami un saistoši objekti, piemēram, augļi, dārzeņi, krāsas, dzīvnieki, okeāns vai ziedi (University of California Cooperative Extension, 2001).

Lasot kopā ar bērniem, nav jāakcentē alfabēta mācīšana. Vērojot attēlus, izrunājot vārdus un klausoties pieaugušo runā, bērns soli pa solim iepazīs alfabēta lielos un mazos burtus, attīstīs valodu, gūs izpratni par attēla un jēdziena savstarpējo saistību un paplašinās priekšstatus par apkārtējo pasauli (Evans, 2019).

Ābeces ir izmantojamas, lai izpētītu attēlu un teksta attiecības, lai viegli identificētu atšķirību starp burtu un vārdu, jo alfabēta burts visbiežāk ir izcelts lielāks vai treknrakstā. Papildus var rosināt bērnu mācīties saskaitīt, cik daudz burtu ir vienā vārdā, lai vēl vairāk nostiprinātu izpratni, ka vārdus veido burtu grupas.

Izmantojot ābeces, bērni iepazīstas ar alfabēta skaņām un burtiem. Alfabēta grāmatas attīsta un veicina sarunu un mutiskās valodas prasmes, fonēmiskās izpratnes palielināšanu, mūzikas mācīšanos, teksta savienojumu veidošanu (iepriekšēju zināšanu aktivizēšanu), paredzēšanu (teksta sarunas), secinājumu izdarīšanu, stāsta secības un struktūras elementu identificēšanu, viedokļa izteikšanu, dialoga veidošanu (lugas un lasītāju teātris), vairāku inteliģenču aktivizēšanu, izmantojot rakstīšanu, mūziku, mākslu un deju (Nowak, 2015).

Daudzās mūsdienu ābecēs tiek izmantoti populāri tēli, kurus bērni atpazīst no televīzijas programmām, animācijas filmām vai citām grāmatām. Bērns var mācīties alfabētu kopā ar iecienītākajiem filmu vai multfilmu varoņiem.

Ābeces teksts ir nesaraujami saistīts ar ilustrāciju. Ilustrācijas ir radītas ar mērķi izglītēt, ne tikai izklaidēt un iepriecināt bērnus. Ābeces izglīto, attīsta un veicina domāšanu (Nodelman, 2001).

Pētnieki (Harris, Hodges, 1995) ir snieguši lakonisku definīciju: alfabēta grāmatas ir bilžu grāmatas, kurās secīgi parādīti alfabēta burti no „A” līdz „Ž”.

Alfabēta grāmatas ir veidotas, lai parādītu saistību starp burtiem un skaņām, kuras tie attēlo (Murray et al., 1996).

Papildus ilustrācijām un konsekventam organizatoriskajam modelim alfabēta grāmatām parasti ir vienots formāts, daudzas no tām saturiski saistītas ar specifisku jēdzienu vai tēmu. Labs piemērs ir Miķeļa Baštika veidotā „Mazā zemes ābece”, kuras saturs ir par ēdamlietām un mīlestību pret zemi.

Pretstatā tradicionālajai praksei, kad alfabēta grāmatas tiek paredzētas cilvēkiem ar iesācēja lasītprasmes līmeni, jebkura vecuma un spēju lasītāji no alfabēta grāmatām var iegūt dažādas zināšanas. Grāmatai ir jābūt attīstību veicinošai, orientētai uz jaunas informācijas sniegšanu, kā arī jāstimulē bērna radošums un fantāzija.

Izstrādājot grāmatu, jāņem vērā šādi aspekti:

- Vecuma grupa, kurai grāmata ir paredzēta, lai tā atbilstu bērna attīstības pakāpei;
- Teksts, kuram jāatbilst konkrētam žanram;
- Grafiskais koptēls, kas atspoguļo grāmatas mērķi un uzdevumu;
- Konceptuālais risinājums, kas iekļauj sevī grafiskā dizaina un grāmatas satura ideju;
- Kompozīcijas vienotība visā grāmatā, ko rada ilustrācijas, teksta, formas un materiāla sintēze;
- Ergonomiskie parametri, kurus raksturo ērtums, lietojot grāmatu, ka arī drošība (nesatur sīkas detaļas, nav asi stūri) (Bobrov, Chernaya, 2020).

Agrāk veiktie pētījumi liecina, ka izvēloties grāmatu, jaunākie bērni dod priekšroku ilustrācijām, kurās ir mazāk detaļu, vairāk krāsu un karikatūru. Atzīstami tiek novērtēti arī fotogrāfisko ilustrāciju stils (Amsden, 1960; Stewig, 1974). Arī jaunāki pētījumi apstiprina, ka spilgtas, reālistiskas ilustrācijas ir labākas un piemērotākas bērniem. Pētot izteikti pamanāmus grāmatu tekstus un izteismīgas ilustrācijas, acu izsekošanas pētījumos apstiprinājās, ka bērni, lasot stāstu grāmatas, reti pievērš uzmanību teksta izskatam (Evans, Saint-Aubin, 2005; Evans, Saint-Aubin, 2013). Tekstu var padarīt pamanāmāku, izmantojot palielinātus vai atšķirīgus šriftus, mainot krāsu vai iestrādājot tekstuālo daļu ilustrācijā. Tomēr pat tad, kad teksts ir īpaši izcelts, pētījumā tika fiksēts, ka bērns aplūko tekstu 7% no skatīšanās laika grāmatas atvērumā. Bērnu skatīšanās uz tekstu bija krietni mazāka, kad ilustrācija lapā bija dominējošā, bērni teksta aplūkošanai veltīja tikai 2,7 % no skatīšanās laika, jeb aptuveni 8 sekundes no 5 minūšu skatīšanās laika (Justice, Lankford, 2002).

Ābecēs, kas paredzētas pirmsskolas vecuma bērniem, teksts ir vairāk izcelts nekā stāstu grāmatās, jo mērķis ir izcelt katru alfabēta burtu. Lasot ābece, kur mērķa burts ir aptuveni vienāds ar diviem ilustrētajiem objektiem, pirmsskolas vecuma bērnu acs fiksācija palielinājās līdz 13% mērķa (galvenajam burtam) un par 9% dotajam vārdam, no kopējā skatīšanas laika (Evans et al., 2009). Ābecēs, kas paredzētas pirmsskolas vecuma bērniem, teksts zem galvenā alfabēta burta ir attēlots daudz mazākā fontā, salīdzinot ar ilustrāciju lielumu (Evans et al., 2008).

Kopumā, analizējot ābeču dizaina organizēšanas principus un formātu, var secināt, ka lielākajai daļai alfabēta grāmatu ir konsekventa un paredzama struktūra, kas padara tās lietotājam draudzīgas. Atšķirīgās satura sarežģītības pakāpes pozicionē alfabēta grāmatas kā vērtīgas dažādās vecuma grupās. Daudzas alfabēta grāmatas ir fokusētas uz kādu konkrētu tematiku vai kontekstu un iepazīstina ar vispārīgajiem un specifiskajiem jēdzieniem un leksiku.

Bērnu grāmatu mūsdienu dizaina tendences *Contemporary Design Trends of Children's Book*

Šobrīd daudz tiek runāts par to, lai ilustrācijas un īpaši grāmatu vāki būtu estētiski, jo, jau no bērnības ir jāizkopj laba gaume. Viena no tendencēm, kas paliek nemainīga bērnu grāmatu dizainā – mazāk ir vairāk. Šīs tendences pamatā ir līdzsvars starp ierobežotas krāsu paletes vizuālo vienkāršību un balto, brīvo laukumu. Apzināta baltā telpa grāmatas lappusē nozīmē lielāku “elpojamību” un samazina fokusa punktu daudzumu. Balto laukumu popularitāte pieaug, kas liecina par minimālisma dominanti grāmatu grafiskajā dizainā.

Pašreizējās tendences galvenokārt ir vērstas uz digitālo un tehnoloģisko progresu sabiedrībā. Tehnoloģiskie sasniegumi ir ievērojami ietekmējuši iespēšanas un izdošanas iespējas. Izdevniecības mēģina radīt drukātus tekstus, kas stilā, attēlu tipā vai formātā atdarina vai līdzinās digitālajiem tekstiem. Nepieciešams atzīt, ka vēstījumus tiek nodots dažādos saziņas veidos. Lasītājiem ne tikai jāsaprot rakstiskā valoda, bet arī jāiemācās saprast vizuālo valodu - zīmes un simbolus (Anstey, Bull, 2006).

Šobrīd kā tendence ir izveidojies dažādu burtu veidu pielietojums grāmatās, lai panāktu noteiktu mērķi izziņas procesā. Bērnu grāmatas mēdz būt kā detalizētas infografikas. Vizuālie materiāli apkopo tekstu, lai dažu sekunžu laika varētu iegaumēt informāciju. Ilustrācija piesaista un notur lasītāja, īpaši bērnu uzmanību un mēdz ilgus gadus palikt atmiņā. Ilustrācija ir viena no vissvarīgākajām vizuālās komunikācijas formām: tā informē, instruē un iedvesmo.

Aizvien lielāku popularitāti gūst aktivitāšu grāmatas – spilgtas un krāsainas, tās ir daudzveidīgās formās: no uzlīmju grāmatām un marionetēm līdz zīmogiem un rokdarbu komplektiem. Mūsdienu bērnu grāmatai jābūt rotaļīgai, taču piemērotai konkrētai vecuma grupai, kā arī pamanāmai un labi ilustrētai, lai pievērstu uzmanību.

Ilustrācijas kļūst vienkāršākas, taču ar spēcīgu dizainu un spilgtām krāsām. Pastāv divi pretēji viedokļi par krāsu lietojumu bērnu grāmatu dizainā - vieni ir par spilgtām un intensīvām krāsām, citi savukārt ir par mierīgiem pasteltoņiem un minimālismu krāsās. Minimālisms ir tendence, kas šobrīd ir plaši izplatīta grafiskā dizaina pasaulē. Minimālisma aspekts ir vienkāršotu attēlu izmantošana. Pieaugošu popularitāti gūst plānu, vienas līnijas zīmējumu izmantošana.

Arvien vairāk ilustratoru atgriežas pie retro stila bērnu grāmatu dizainā, izmantojot retro krāsas vai tolaik populāros burtu fontus.

Bērnu grāmatu dizainā svarīgs ir ne tikai vizuālais rezultāts, nozīmīga ir arī grāmatas uzbūve, burtu lielums, papīra lietojums. Ļoti nozīmīgs dizainā ir grāmatas vāks (Zavos, 2018).

Vāku dizainā šobrīd populāri ir veidot nosaukumus rokraksta šriftā, šāda tendence vērojama gan Latvijā, gan pasaulē. Par bērnu grāmatu dizaina paraugiem var saukt izdevniecības „Liels un mazs” izdoto grāmatu sēriju „Bikibuks”.

Šobrīd kā tendence ir izveidojies dažādu burtu veidu pielietojums grāmatās, lai panāktu noteiktu mērķi informācijas uztveres procesā.

Galvenās nākotnes tendences bērnu grāmatu dizainā ir vienkāršība un kvalitāte, taču sekošana tendencēm nenozīmē, ka visām ilustrācijām vajadzētu izskatīties vienādām. Vairāk nekā jebkad veiksmīgiem autoriem būs savs individuālais stils. Spilgtas, neparedzētas krāsas un to kombinācijas vai neparasts skatu leņķis palīdzēs ilustrācijām izcelties. Dizainā un mākslā apvienosies dažādas nacionālās tradīcijas.

Mūsdienās grāmatas ir kļuvušas iztēli rosinošākas, dinamiskākas. Mākslinieki un dizaineri strādā pie tā, lai grāmata būtu kā vesels piedzīvojums. Ilustrācijas tiek veidotas krāšņas un uzmanību saistošas.

Ilustrāciju pasaule digitālajā laikmetā piepilda sociālos mēdijus, kur ilustratori piesaista tiešsaistes auditoriju. Mainoties mūsu kultūrai, ilustratori visā pasaulē ievieš jauninājumus un pielāgojas, un tie nemazināsies tuvākajā laikā (Zavos, 2018).

Teorētiskajā izpētē gūtās atziņas tiks izmantotas latgaliešu valodas bilžu ābece grafiskā dizaina izstrādē.

Latgaliešu valodas bilžu ābece grafiskā dizaina koncepcija *Latgalian ABC Graphic Design Concept*

Grafiskā dizaina koncepcijas mērķis ir izstrādāt gaumīgu un estētisku latgaliešu ābece dizainu un zīmējumus, kas atbilstu mūsdienu dizaina tendencēm bērnu grāmatu ilustrēšanā. Izvēloties veidot bilžu ābeci, būtiski izprast tās saturisko, un konstruktīvi ergonomisko risinājumu. Kā jau iepriekš minēts, ābece teksts ir nesaraucjami saistīts ar ilustrāciju. Grāmatai jābūt attīstību veicinošai, orientētai uz jaunas informācijas iegūšanu, kā arī jāstimulē bērna radošums un fantāzija. Vērojot attēlus, izrunājot vārdus un klausoties pieaugušo runā, bērns soli pa solim iepazīs latgaliešu alfabēta burtus, attīstīs valodu, gūs izpratni par attēla un jēdziena savstarpējo saistību un paplašinās priekšstatus par apkārtējo pasauli.

Ābece izstrādes mērķis ir popularizēt latgaliešu valodu, izveidojot metodisku ābeci bērniem, viņu vecākiem un visiem interesentiem, kas vēlas papildināt zināšanas latgaliešu valodā, gūstot ierosmi sarunu tematiem. Savukārt dizaina uzdevums ir radīt pēc iespējas labāku kognitīvās ergonomikas risinājumu grāmatas uzbūvē. Šāda ābece nav mācību grāmata valodas gramatikas un rakstības apguvei. Izstrādātā latgaliešu valodas “Ābeceite” iepazīstinās ar tautā

mazlietotiem latgaliešu valodas vārdiem, ko jaunā paaudze dažkārt nav dzirdējusi un to iekļaušana ikdienas leksikā var bagātināt ikviena latgalieša vārdu krājumu.

Tekstu, atbilstoši katram alfabēta burtam, tika piedāvāts sacerēt dzejniecei Inetai Atpilei-Juganei, ņemot vērā viņas iepriekš veikto literāro daiļradi latgaliešu valodā. Sadarbībā ar dzejnieci Inetu Atpili-Jugani tika nolemts katru burtu tekstuāli ilustrēt ar bērnam viegli uztveramu divrindi, vēlams ar atskaņām un, atbilstoši divrindes saturam, veidot vizuālo ilustrāciju.

Katram burtam tika paredzēta sava ilustrācija, jeb divas ilustrācijas vienā atvērumā, pēc iespējas, veidojot kopīgu stāsta līniju. Skices tika izstrādātas, zīmējot ilustrācijas ar melnu marķieri un laukumus aizpildot ar akvareļkrāsām. Tika ievērots arī, tendencēs minētais, baltais fons. Akvareļu krāsām ir daudz priekšrocību – tās viegli klājas uz speciāla papīra, ir caurspīdīgas un gaisīgas. Akvareļu krāsas ļoti viegli šķīst ūdenī, tāpēc akvareļa tehnikā veidotās gleznas ir ar netveramām krāsu laukumu robežām. Akvareļglezniecībai raksturīga atsacīšanās no lineāra zīmējuma un skaidrajām līnijām. Tādējādi ar akvareļa palīdzību izdodas apvienot glezniecības un grafikas mākslinieciskās īpatnības. No daudzajām akvareļu tehnikām, māksliniece I.Širiņa, kā piemērotāko izvēlējās tehniku “slapjš uz sausa”, kas ir visizplatītākā, jo nodrošina tīru, konsekventu rezultātu.

Pētot Inetas Atpiles-Juganes divrinžu saturu, tika izvēlēti atslēgas vārdi – prieks, vieglums, rotaļīgums, gaišums, krāsas, emocijas un sajūtas, kas rada pozitīvas un priekpilnas asociācijas, kas tika ņemtas vērā, radot ilustrācijas.

Grāmatas nosaukums “Ābeceite”, dod norādes par grāmatas saturu, t.i. burtu un ar tiem saistīto vārdu secīgu izkārtojumu alfabēta secībā.

Atbilstoši ābece mērķim - atklāt bērnam tuvu un saprotamu pasauli, ilustrācijā katram alfabēta burtam tika izvēlēts atbilstošs tēls, kas rosina bērna interesi un, kopīgās pārrunās ar pieaugušo, veido vērtību sistēmu.

Turpinājumā, ieskatam, izveidotās latgaliešu valodas ābece pirmo trīs atvērumu saturs un ilustrācijas (skat. 1., 2., 3.att.).

Pirmais atvērums: burts **A** – *avīšys* (avenes); *Avīšyssorkonys, gordys ūgys, / Kai sauvē, tai mutē – bez bādys!* Ilustrācija - kūkas gabals, dekorēts ar avenēm un mellenēm. Tas simbolizē mūsu zemē augušo un ražoto produktu spēku un mīlestību, ko visbiežāk sagādā māmiņas un vecmāmiņas. Burts **Ā** – *Ā, es zinu itū jūku, / Kūku sauc par gumejkūku!* Latgaliešu valodā nav vārdu, kas sāktos ar šo burtu, tāpēc nācās to lietot kā izsaukmes vārdu, lai iesāktu teikumu par gumijkoku. Gumijkoks podiņā simbolizē augšanu un attīstīšanos, kā arī rada mājīgu atmosfēru. Daudziem šis augs raisa siltas atmiņas par vecmāmiņas mājām.

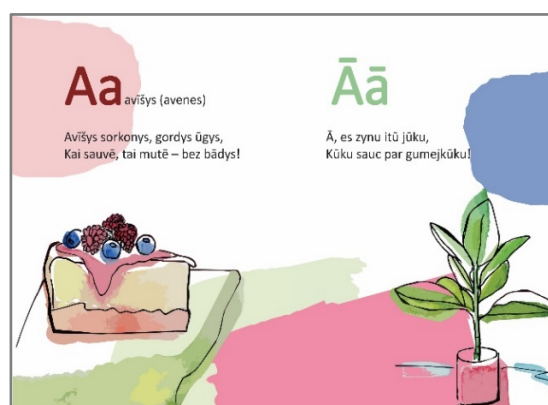
Otrais atvērums: burts **B** – *bacjans* (stārķis); *Bacjans spuornus i kuojis cyloj, / Voi nūgivs vardivi tai doncoj?* un burts **C** - *cukerka* (konfekte); *Cukerka kod reitiškos teik gorda, / Dīna soltuos mātrys garšā suokta.* Stārķis ir Latgales ainavai tipisks gājputns. Tautas ticējums vēsta, ka stārķis ir nozīmīgu cilvēka dzīves

notikumu pareģotājs un viens no gudrības simboliem. Lasot kopā ar vecākiem ābeci, mazais lasītājs pieņemsies gudrībā, un kā atvērumā redzams, tiks atalgots ar kādu gardu konfekti.

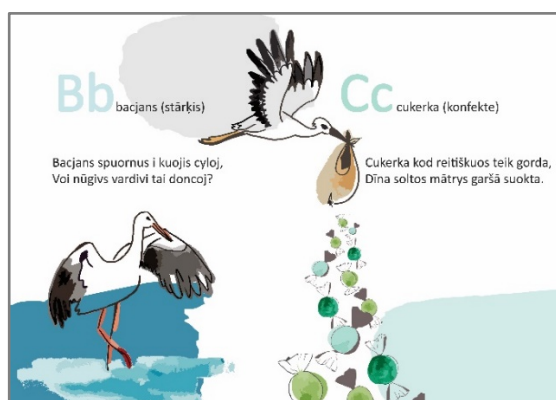
Trešais atvērums: burts Č – čāčyns (žagata); Čāčyns pīstruodova breinumus bez gola /Stuņdinīku nūnese sev leidza nu golda un burts D – depe (ķepa); Depe Dukšam lela i sylta, /Vasals - i tei rūkā teik lykta! Žagata pagalmā ir vēstnesis, kad gaidāmi ciemiņi, kā arī laimīgas tikšanās simbols, un šī tikšanās šoreiz ir ar draudzīgo Duksi, kurš jau sniedz ķepu sveicienam. Suns var būt bērna labākais draugs, rotaļbiedrs, sargs un palīgs.



1. attēls. Grāmatas vāka varianti
Figure 1 Book Cover Variants



2. attēls. Pirmais grāmatas atvērums
Figure 2 The 1st Opening of the Book



3. attēls. Otrais grāmatas atvērums
Figure 3 The 2nd Opening of the Book



4. attēls. Trešais grāmatas atvērums
Figure 4 The 3rd Opening of the Book

Bērnu grāmatu dizains ļauj pārkāpt ierastos likumus, taču autore izvēlējās par labu ierastajam - melni burti uz balta fona, neaizsedzot ilustrācijas, kas kognitīvajā ergonomikā ir atzītākais, labāk uztveramais variants.

Secinājumi **Conclusions**

Veicot teorētiskās izpētes apkopojumu par tendencēm bērnu grāmatu dizainā, var secināt:

- Ilustrācija ir viena no vissvarīgākajām vizuālās komunikācijas formām: tā informē, instruē un iedvesmo, ilustrācija piesaista un notur bērna uzmanību. Laba bilžu grāmata ir tāda, kur vērojama teksta un ilustrāciju mijiedarbība.
- Ir svarīgs ne tikai vizuālais grāmatas gala rezultāts, nozīmīga ir arī grāmatas uzbūve, burtu lielums, papīra lietojums, tikai apvienojot šos elementus ir iespējams izveidot lasītājam nozīmīgu iespieddarbu.
- Aktuālās tendences bērnu grāmatu dizainā ir:
 - minimālisms un krāsu tīrība, vienkāršība un kvalitāte;
 - retro stils bērnu grāmatu ilustrācijās un fontos;
 - grāmatu nosaukumi rokkraksta šriftā;
 - grāmatas ar pievienoto vērtību - aktivitāšu jeb darbošanās grāmatas.

Izstrādājot latgaliešu valodas ābece grafisko dizainu tika ņemtas vērā kognitīvās ergonomikas nostādnes par teksta un ilustrāciju mījīdarbām, ilustrāciju atbilstība saturam un dzīves vērtību izpratnes veicināšanai.

Summary

Summarizing the theoretical research on the trends in children's book design, it can be concluded:

- Illustration is one of the most important forms of visual communication: it informs, instructs and inspires, illustration attracts and retains the child's attention. A good picture book is one that shows the interaction of text and illustrations.
- Not only the visual appearance of the book is important, but also the structure of the book, the size of the letters, the use of paper. By combining these elements, it is possible to create a printed work that is important to the reader.
- Current trends in children's book design are:
 - minimalism and color purity, simplicity and quality;
 - retro style in children's book illustrations and fonts;
 - book titles in handwritten font;
 - books with added value - activity books.

The graphic design of the Latgalian alphabet book took into account the principles of cognitive ergonomics on the interrelationships between text and illustrations, the correspondence of illustrations to content and to the promotion of understanding of life values.

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ANTHROPOLOGICAL DIMENSIONS OF THE MODERN MUSICAL ART OF EASTERN EUROPE

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Abstract. *The peculiarities of the world model and the human model in the Eastern European music art of the postmodern era were revealed. The research is based on a hermeneutical analysis of the contemporary Russian and Ukrainian composers' works. The research method builds on the systematic and historical approaches. It allows to consider the individual musical text as a subsystem of a higher order system. The sociocultural context was considered. The scientific novelty consists in revealing the specifics of the Eastern European artists' worldview of the last third of the XX and beginning of the XXI centuries. It is the consequence of studying their creativity in an anthropological dimension. The anthropological essence of the music of contemporary Ukrainian and Russian composers lies in a certain inconsistent polarity. The polarity is represented by the ironic and fragmented worldview combined with the religious quest. The awareness of the chaos and apocalyptic culture is combined with the religious support in its various manifestations. Therefore, the character in modern music has a dual essence. He is both marginal and a personality with strong spiritual support. In the works of contemporary Russian and Ukrainian composers, two postmodern worldview poles are organically combined: a destructive worldview and a desire for harmony. This polarity is caused by the crisis mentality of the modern post-totalitarian society.*

Keywords: *postmodernism, polystylistics, monostylistics, religiosity, spiritual genres, meditation.*

Introduction

The music of the second half of the XX – the first decades of the XXI century is characterized by a wide conceptual, genre and stylistic spectrum, generated by postmodern consciousness. Expanding the boundaries of individual

national schools, intensifying integration processes in artistic culture, rethinking the heritage of the past are far from a complete list of changes in the contemporary art. A variety of artistic worldviews and ways of embodying them in musical art was generated because of these changes. The critical attitude to cultural authorities led to a peculiar mockery of the tradition. It was manifested in the polystylistic technique. The desire to create “here and now” and forcing a listener or viewer to become a participant in creating an artistic text led to the emergence of the art of happening. An attempt to comprehend deeply the global problems of a human being gave rise to a new type of monostylistics and immersion in the genre sphere of sacred music of different religious traditions.

At present, musicology is actively exploring contemporary music art from the standpoint of transformation of the genre system, new principles of style formation, applying the latest compositional techniques. Creativity of well-known composers of different national schools is constantly in the focus of researchers’ scientific interests. However, the embodiment of the world and human models in the musical text remains unexplained in the works of researchers. According to the authors of the article, the artist’s awareness of the world order and his place in it is one of the most important outcomes for the recipient in the process of artistic communication. This is because the average listener is not concerned with the problems of genre and style analysis or the peculiarities of the composer’s technique, but he must understand the author’s idea, his vision of the world and a person in it. Therefore, studying the anthropological aspects of musical works and an awareness of the specificity of embodying the world model and human model in the artistic texts of postmodern culture by the means of musical expression are relevant issues.

Studying the musical works of those authors, whose creativity was initially regulated by the ideological norms of the Soviet Union and the principles of “socialistic realism” and then liberated from the yoke of the communist regime, is a separate aspect of the described approach. In particular, the music of Russian and Ukrainian composers shows the specifics of artistic processes in the post-Soviet space, marked by social catastrophes and mental shifts. The purpose of the study is to find out the content of the world model and human model inherent in contemporary music in the territory of Eastern Europe based on a hermeneutical analysis of the Russian and Ukrainian composers’ works of the last third of the XX – the first decades of the XXI century. This goal allowed us to formulate the objectives of the article: characterization of the world and human models in the Western European music of the postmodern era; hermeneutical analysis of Russian and Ukrainian composers’ works; identification of key ideological traits of post-Soviet music and their comparative analysis with artistic concepts of Western European art.

Literature Review

There is no shortage of music studies exploring the creativity of contemporary composers in Eastern Europe. In particular, there are some monographs and scientific studies, which are devoted to the music of A. Schnittke, that became a landmark for studying the course of musical processes in the post-Soviet space. The issues of using ancient genre models by the composer are revealed in the research of V. Kholopova (Kholopova, 2003) and E. Akishina (Akishina, 2003). Belge (Belge, 2018) focuses attention on studying the specifics of choral and symphonic music, considering the penetration into it of pop stylistic features. The problems of interpretation the peculiarities of Christian subjects and functioning of genres of sacred music in the works of A. Schnittke are presented in the studies of A. Kuznetsova and E. Kaishauri (Kuznetsova, Kaishauri, 2019), in the dissertations by J. Lehmann (Lehmann, 2018) and M. Jennings (Jennings, 2002), works of I. Moody (Moody, 2004; 2018), K. Sander (Sander, 2017), K. Segall (Segall, 2013).

The peculiarities of embodying the traditions of sacred music in the works of contemporary Ukrainian artists are studied by the Ukrainian researcher and composer O. Kozarenko (Kozarenko, 2001). He repeatedly referred to the genres and style canons of Christian music in his compositions. The interest of Ukrainian composers to the spiritual genres prompted I. Gulesko's life and research (Gulesko, 2002).

The cultural approach to the study of the Russian and Ukrainian composers' works in the last third of the XX – early XIX centuries is shown by P. Schmelz (Schmelz, 2009), who explored the special situation of the music functioning during the late Soviet and early post-Soviet eras. The creative activity of Andrei Volkonsky, Alfred Schnittke, Arvo Pärt, Sophia Gubaidulina, Valentin Silvestrov and others was in a focus of his attention.

M. Chizmich (Chizmich, 2011) explores the music of Eastern European composers in the last third of XX century in a sociocultural context. M. Chizmich uses analytical methods of psychology, sociology, literary criticism and cultural studies. She presents series of essays in which she identifies the ways methods of reflection of composers and listeners on issues of historical trauma and loss from the positions of hermeneutical analysis. Analyzing typical postmodern techniques (including quotation, fragmentation), the researcher finds musical analogies with the psychological and emotional reactions of post-Soviet society to trauma and grief. M. Chizmich argues that music can help people to understand their emotions, interpret memories and create a sense of collective identity. Her focusing on the music of the 1970-80s is explained by the fact that this period was marked by a rethinking of the events and consequences of World War II and the era of Stalin's rule. The works of Alfred

Schnittke, Galina Ustwolskaya, Arvo Pärt and Henryk Goretsky were the objects of analysis. In this works, according to M. Chizmich, the basic techniques that embody, the typical reflections of post-communist society, were clarified. However, the researcher focuses solely on the compensatory and reflexive functions of the music of these composers.

A general overview of the problems of music in the post-Soviet space was also provided by V. Adamenko (Adamenko, 2007) in the study of the complex phenomenon of neo-mythologism in music inherent in totalitarian regimes. The strength of this work is an interdisciplinary approach that brings together various aspects of many fields of culture (music, mythology, semiotics, philosophy, religion, anthropology)

The authors of the article offer their own “inside” look at the music of the period as they themselves represent the post-Soviet culture. At a certain, albeit short, historical distance, we will attempt to determine the meaningful content of the music of Russian and Ukrainian composers from anthropological positions of embodying the image of the world and the image of a contemporary in it.

Discussion

In the study of musical texts, the authors rely on the principles of hermeneutical analysis, which allows getting into the essence of the content of the artistic text. Using a systematic approach makes it possible to consider a separate musical text as a subsystem of a higher order system such as contemporary creativity of the Eastern European composers. The authors of the article also rely on the position of the historical approach in their study of composer creativity, because each specific musical sample should be considered in a certain sociocultural plane.

The article was based on works of Russian and Ukrainian avant-garde composers whose creativity came from the 1960s and 1970s and developed during the period of active destruction of the established Soviet-colonial system. A preliminary hermeneutical analysis of the works of Russian and Ukrainian composers including A. Schnittke, S. Gubaidulina, E. Denisov, A. Karamanov, F. Karaev, B. Buevsky, E. Stankovych, O. Kozarenko, L. Dychko, V. Zolotukhin, V. Runchak, L. Grabovsky, V. Sylvestrov, S. Zajitko and others was conducted.

For an understanding of the anthropological specifics of the Eastern European music, the main features of the Western European artistic worldview should be highlighted. Postmodernism as a spiritual phenomenon of the second half of the twentieth century is characterized by self-awareness of the crisis perception of reality, which gives rise to feelings of despair, confusion, and exhaustion of being. The Western version of postmodernism embodies the rupture of social and spiritual bonds of life and losing moral orientations.

Disharmony and destruction are the main features of the postmodern artistic worldview that sees the world as horrifying and bizarre. The lack of integrity of the world is manifested in the chaos, fragmentation, and collage of musical art. The attempt to comprehend the world is made by artists in terms of vision of past eras and the cultural experience of mankind. In postmodern music, this is reflected outwardly in the combination of contrasting style elements and quotations from other periods of art. This brings to the music a certain chaos that reflects the chaos and the absurdness of the world and an attempt to realize it. A certain contradiction of the artistic text, which is the embodiment of the contradiction of the world, has caused a variety of its interpretations.

A person in such a culture is largely a marginal being at the crossroads of different eras, whose nature is determined by the crisis of being. This causes the particular emotional vulnerability, irony and skepticism of the postmodern personality. The worldview of the hero of an artistic text can often be expressed by the phrase “a strange viewpoint of a strange person in a strange world”.

The mythology often prevails in the postmodern worldview rising to the philosophical level. The didactic task of myth is to realize the individual in the Universal's aspect in the context of eternity. However, mythmaking in the Western European version often relies on postmodern irony, while in the Eastern European art, mythmaking is perceived as an ideological norm.

The Western European postmodern world model is characterized by disharmony, whimsy, introversion, and lack of integrity. The model of the marginalized person in this worldview system is characterized by irony, skepticism, awareness of the absurdity of being. According to such a worldview, art often appeals to the unconscious, seeks to destroy canons, and use collage, that leads to fragmentation and chaos of artistic texts. The multilingualism of styles and techniques is the main complexity of interpreting, but it creates a new versatility and leads to a variety of interpretations.

Among the favorite topics of Western European postmodernism, there is a desire for an awareness of the non-European East worldview and the embodiment of the Christian theme. The attraction to spiritual subjects is also typical for the music of the late O. Messiaen. These two topics later found their versatile embodiment in the works of Russian and Ukrainian composers (A. Schnittke, S. Gubaidulina, E. Denisov, V. Martinov, V. Silvestrov, E. Stankovych, M. Shukh, L. Dychko, A. Karamanov and many others).

What kind of world model does Eastern European art in the conditions of early postmodernism, which coincides in time with The Khrushchev Thaw and The Era of Stagnation, reflect? In 1960-1970, Soviet art still was laced with ideological and stylistic norms of the pseudo-method of “socialistic realism”. It continued to reflect and manipulate the perception of the victims of World War II, the great victory of the Soviet people led by the Communist Party, the

debunking of fascism as the world evil, the construction of a “bright communistic future”. The ideologically grounded works of the official Soviet composers are clearly structured for good and evil, true and false. The creativity of the composers of the so-called “Russian trinity”, which includes A. Schnittke, E. Denisov, and S. Gubaidulina, declared itself at the turn of the late 1960s. They demonstrated that anthropological principles of the postmodern artistic worldview also penetrate totalitarian culture. It is well known that the First Symphony (1969-1972) by A. Schnittke was a manifestation of polystylistics in Russian music of The Era of Stagnation. According to the authors of the article, it also acts as a manifesto of the postmodern worldview in the territory of the Soviet empire. There is the picture of the world appearing not to be holistic and ideologically structured, but fragmentary, chaotic, and presented through the prism of an ironic and skeptical worldview. If collage in the West was already a common technique, then in Soviet music we see the first consistent and semantically justified use of it. For A. Schnittke, the deliberate use of banal thematism was not new at the time, because in *Serenade for Five Instruments* (1968) he extensively used the intonation of musical life, bringing to the theme of composition the melody of variety songs, jazz, dance (polka, waltz, foxtrot). Similar are the finals of both cycles, where the combination of serious and everyday music makes it possible to realize the loss of the high art exemplars of the artistic essence in contemporary society. The overall story of the First Symphony, formulated by its author, is the struggle of harmony and disharmony, in which it is important to find true and meaningful harmony. The composer resorted to the hypertrophied image of the domestic sphere and leveling of the value of high art to reveal such a “plot”. The postmodern vision of the absurdity and chaos of the world is vividly embodied in the second part of the cycle filled with stylizations, allusions, quasi-quotations of non-original styles of household music. Such an image of the world shows us the opposition to the official art of thinking of a young Soviet-era artist. It is supported by the images and stylistics of the *Second Sonata for Violin and Piano* (1967) and *Concerto Grosso No. 1* (1977). Pessimism and the devaluation of ideals sound in the *Concerto for Viola and Orchestra* (1986), in which A. Schnittke already uses monostylistics of a new type, built on the subtle allusions of romantic music.

A. Schnittke’s music was a single manifestation of the postmodern worldview tendencies, but the ideological ideas of postmodernism were fully embodied with the fall of the Soviet empire in the countries formed on its wreckage. The works of E. Denisov, S. Gubaidulina, F. Karaev, B. Tyshchenko and many other artists are a confirmation of this. There are some examples below.

Russian-Azerbaijani composer Faraj Kara ogli Karaev embodied the ironic and fragmented worldview in the composition “*Ist Es Genug?*” (“*Is That’s*

Enough?", 1993), saturated with allusions and hints. In "Der Stand der Dinge" ("The State of Things", 1991), the composer embodied the chaotic thinking of the post-Soviet man, his pessimism, and a sense of hopelessness through the play of styles.

Irony, skepticism, and fragmentation of the worldview came into the entirety of Eastern European music precisely in the post-totalitarian period. It was the time when the Soviet ideological system was destroyed. The personality prone to deep reflection felt the destruction of established worldview dogmas with extreme severity.

Besides embodying a fragmented and chaotic vision of the present, an appeal to religious subjects was a one more striking feature of post-Soviet music. It was manifested in two aspects: 1) appeal to the ancient genres of different Christian denominations; 2) interest in Eastern religions, inseparable from Eastern systems of worldview and meditation. A. Schnittke again was one of the first to embody this tendency. He restored the genre model of Catholic Mass in his Symphony No. 2 (1977), following the polystylistic mockery of tradition in the First Symphony. The composer resorted to quoting a Latin gradual melody at the beginning of each section in the cycle.

A. Schnittke's creativity is characterized by a versatile worldview, also inherent in the postmodern art. This is manifested not only in the wide stylistic amplitude but also in its appeal to the genres of the various Christian denominations. His String Quartet No. 2 (1980) is based on the melodic material of iconic chants. Symphony No. 4 (1984) is imbued with the spirit of ecumenism and contains themes of Judaic, Catholic, Orthodox and Protestant origin. Particular attention should be paid to the fact that all these works appeared in the period of Soviet ideological rule and did not coincide with the official art of the empire. At the same time, they are evidence that part of the Soviet artists worked in postmodern tendencies, as if prophesying the subsequent cataclysms of the communist regime and seeking ways to compensate the psychological stress from destroying the norms familiar to the Soviet man.

A. Schnittke was not alone in his ideological and stylistic pursuits. In particular, "Requiem" (1980) by E. Denisov also embodies the concept in line with typical postmodern reflections on the problem of the perishability of human existence and the lack of integrity of the Universe. The combination of Oriental mysticism and religious thinking is typical for S. Guibaydulina's creativity. This thesis is corroborated by the works of different compositions: "Rubaijat", cantata for baryton and chamber ensemble (1969); "In croce" for cello and organ (1979); "John's Passion" (2000) and "Easter for John" (2001), both for soloists, choir and orchestra; "Sonnengesang" for cello and ensemble (1997); "Waiting" for accordion (1986); cantata "From Chasoslov" (1991) and others.

Postmodern ideas of fragmentation, irony, provocativeness, and destructiveness are most clearly reflected in the works of Ukrainian composers Volodymyr Runchak and Sergey Zajitko. In their compositions, the typical worldview features of postmodernism are fully revealed. The desire for postmodern meditation is explicit in the works of Alemdar Karmanov, Oleksandr Shchetynsky, Mikhail Shukh and many other artists.

However, Boris Buevsky with his First Symphony (1965) and Yevhen Stankovych with his Symphony "In modo collage" (1971) were the first Ukrainian composers to show a fragmentary, kaleidoscopic and ironic beginning in the form of "playing with styles" in their music. The distorted world, which depends on the interpreter and the recipient, appears in the series "Songs of the Nations" by S. Zajitko. The creativity of this composer is, perhaps, the most provocative among contemporary Ukrainian artists ("Phalaspied", "Here it is!", "Playing ball", "Epitaph of the Marquis de Sad", "Bad music").

The postmodern worldview is fully embodied in the works of V. Zolotukhin, V. Runchak, L. Grabovsky, V. Sylvestrov. It was proved by the hermeneutical analysis, which appeared in the period of independent Ukraine. Unlike in the western version, this worldview is embodied with a delay of 30-40 years in the works of most Eastern European composers.

The so-called "new religiosity" spread throughout the culture of the last third of the XX and beginning of the XXI centuries is widely embodied in the contemporary post-Soviet music. It combines the appeal to religious subjects, the restoration of ancient genre models of sacred music and the attraction to oriental meditation. The contradictory picture of the world appears in many works by Alemdar Karamanov (in particular, the cycles of symphonies "Sovershyshasia" (1965-1966) and "Byst" (1976-1980), where Christian apocalyptic motives and an oriental sense of the harmony were combined). It should be noted that A. Karamanov began turning to religious subjects in the early period of his creative activity while living in Moscow, where he became one of the bright leaders of the musical avant-garde.

There are compositions of many other authors related to the current of "new religiosity": Lesia Dychko ("Liturgy", 1989-2002); Igor Shcherbakov ("Repentance Verse" for violin and string orchestra (1989), chamber symphonies "ARIA-PASSIONE" (1992, 2000), cantata "Stabat Mater" (1992), "Agnus Dei" (1996), "Orthodox Choir Concert in Memory of S. Rachmaninov" (1996), "Theotokos, Virgin, Rejoice" (1998), musical and stage performance "Jesus" (Prologue, 1998)); Volodymyr Runchak ("Kyrie eleison" (1990), "On the Death of Jesus", "Prayer" (1993), Chamber Symphony "Spiritual Songs" (1988), "Requiem" (1990)); Alexander Kozarenko ("The Time of Repentance" (1998), Chacon for the Symphony Orchestra (1990) and Pasakali on the Galician theme for organ (1989), "Irmologion" for string instruments (1988)) and many others.

It can also be stated that in the works of contemporary Ukrainian composers, two postmodern worldview poles are organically combined: a destructive worldview and a desire for harmony.

Results of the Research

In a result of our reflections on the embodiment of the world model and the human model in the works of Russian and Ukrainian composers as representatives of Eastern European artistic thinking, we can not only correct, but sometimes oppose the judgments of Western scholars of contemporary music. P. Schmelz (Schmelz, 2009) in his research puts forward the thesis that the works of A. Volkonsky, A. Schnittke, A. Pärt, S. Gubaidulina, V. Silvestrov and other composers, who were in the forefront of Soviet art of 1960-1980, are not quite “Soviet” but not “anti-Soviet” and embodies the double relations of citizens of that time with themselves and the state. The authors of the article are inclined to believe that the music of these composers embodies not so much double relations as the world-model and model of a person belonging to the intellectual elite of Soviet society. P. Schmelz also considers A. Schnittke’s First Symphony as one of the “markers” of The Khrushchev Thaw. The team of authors only partially agrees with this statement. The hermeneutical analysis of the symphonic cycle leads to the conclusion that the First Symphony was one of the first works in the Soviet space in which the synergistic conception of the world and the image of a person is comprehensively embodied.

P. Schmelz also argues that the so-called “softening” of Soviet avant-garde music as the end of its “unofficial” period in the mid-1970s is associated with the end of the “musical thaw”. Such a hypothesis also seems doubtful to us. It is more appropriate to associate this tendency with the “post-guard syndrome”. It is often manifested in a new orientation to tradition, an aspiration for simplicity and clarity, a revival of old musical genres and forms in a new historical situation.

The authors of the article are impressed by the systematic approach to the analysis of contemporary music art, proposed by V. Adamenko (Adamenko, 2007), which explores the phenomenon of neo-mythologism in music. However, we do not consider neo-mythologism solely a tendency, but rather a mental component embodied in works of different stylistic directions, including polystylistic compositions. We fully agree with V. Adamenko’s assertion that the technique of polystylistics is an attribute of neo-mythologism in music.

Conclusion

Because of the hermeneutical analysis of the Russian and Ukrainian composers' works of the last third of the XX – beginning of the XXI centuries, we can conclude that the anthropological concept of the Eastern European contemporary music consists in the desire to combine the incompatible. Developing in the realm of postmodernism, the creativity of Ukrainian and Russian artists, on the one hand, embodies the typical principles of postmodernism in its own way, and on the other, shows the specifics of artistic thinking in post-totalitarian culture. Polystylistics, variously embodied in the works of many artists, not only demonstrates the gaming essence of the contemporary art and the fragmented vision of the world model. It is also capable of embodying the polarity of thinking: an awareness of the chaos and apocalyptic culture, on the one hand, and an attempt to find support in religion, on the other. Therefore, the hero in modern music has a dual essence: he is both marginal and a personality with strong spiritual support. According to the authors of the article, such polarity is a consequence of the crisis mentality of the modern post-totalitarian society, which is still painfully recovering from the consequences of Soviet colonialism, but is not always clearly aware of the vector of its future development. The artists found themselves at the crossroads of modern culture in a state of permanent creative quest. And this quest will continue to arouse the keen interest of cultural scientists and art critics.

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THE SYNTHESIS OF PAINTING AND MUSIC: WASSILY KANDINSKY – ALFRED SCHNITTKE

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Abstract. *The interaction between colors and sounds, music and painting has existed long since. Throughout the centuries these two kinds of art have been developing simultaneously and in close contact with each other, besides. Composers, especially those of the 20th century, find in the sphere of painting images for their musical compositions, without trying to depict definite plot lines or specific landscape sketches. The paper analyzes a specific composition by Alfred Schnittke – Wassily Kandinsky – The Yellow Sound. Research aim: to investigate the features of musical implementation of W. Kandinsky's ideas by Alfred Schnittke on the basis of a comparative analysis of specific compositions of both authors. Research method: a comparative analysis.*

Keywords: *synthesis of arts, analysis, composition techniques.*

Introduction

The interaction between colors and sounds, music and painting has been existing long since, both in nature as well as in art. The Ancient Greeks already, and Aristotle among them, wrote that in terms of beauty and harmony colors correlate among themselves like musical consonances (Salder, 2012).

In Ancient India, there was a kind of painting based on musical themes – vanika. This is a skill of illustrating a melody by using tools of painting. The musical-theoretical treaty *Vish-nudharmotor* (the 7th c.) mentions a special kind of Indian painting on musical themes in which the seven sounds of the scale are correlated with seven colors (Babkina, 1966).

These two kinds of art develop simultaneously, being in a close contact with each other to no lesser extent than, for instance, music is with poetry. Musicians and music-making, musical instruments have been a favorite model for fine arts of different epochs. Therefore no wonder that color-sound sensations are characteristic of composers and painters, as well as art critics.

Fine arts constantly inspire composers to create musical compositions. Hungarian composer Franz Liszt admitted that Raphael and Michelangelo had helped him understand Mozart and Beethoven. German composer Robert

Schuman considered that for a composer to study Raphael's pictures is as useful as for the painters to experience Mozart's symphonies. In the 19th c., there appears a special genre – a symphonic picture. N. Rimsky-Korsakov marvelously depicts the sea (symphonic picture "Sadko"), A. Lyadov – the fairy-tale characters ("Baba-Yaga", "Magic Lake", "Kikimora"). M. Musorgsky has created a cycle on the pictures of painter and architect V. A. Hartmann – "Pictures from the Exhibition".

And indeed, there are a lot of things that unite music and painting. The Russian composer of the 20th c. Edison Denisov (1929-1996) considers that the parameters of the similarity between music and painting are as follows:

- 1) spatial laws (painting exists in a two-dimensional space, music – in one-dimensional);
- 2) arrangement of elements in space to create wholeness (a painter arranges the elements to be depicted in the picture, a composer arranges sounds on the spatial-temporal canvas);
- 3) each element has its own properties: any element that is to be portrayed has its own form and color, just like in music a sound has its own form (several parameters) and its own *color* (timbre);
- 4) elements interact among themselves (only in this way a painter and a composer create one whole);
- 5) likeness in the area of form (any work of art – be it artistic or musical - has its own form due to a definite logic of the distribution of elements in space);
- 6) the presence in the 20th c. of a serial technique, both in music and painting; E. Denisov maintains that the serial principle of composition can be found in several pictures by P. Klee (*Paul Klee* 1879-1940) and those by P. Mondriaan (*Pieter Cornelis (Piet) Mondriaan* 1872-1944): *Compositions* of the period of 1917-1928 and *Victory Boogie-Woogie* (1944) by Mondriaan, *Old Cords* (1925) and *A Blossoming Orchard* (1930) by P. Klee (Denisov, 1986).

The 20th c. was no exception, many composers continued this tradition. Russian and German composer Alfred Schnittke drew inspiration from the stage composition of Russian artist Wassily Kandinsky *The Yellow Sound (der gelbe Klang)* and created a composition of the same title in two variants: as a concert piece with a demonstration of the reproductions of artist's pictures and as a pantomime for a soprano, mixed choir in recording and an instrumental ensemble.

Research aim: to investigate the features of musical implementation of W. Kandinsky's ideas by Alfred Schnittke on the basis of a comparative analysis of specific compositions of both authors.

***The Yellow Sound* – History of Creation**

The stage composition *The Yellow Sound* by W. Kandinsky was published in the popular almanac *The Blue Rider* (1912). For Kandinsky, this is a synthetic work that combines color, plastic arts, speech, music (pantomime, colored projectors, orchestra, singers). W. Kandinsky's libretto has no plot, and thus it manifests abstractionism whose theoretician and forbearer he was. The publication in *The Blue Rider* provides also a detailed lighting score, instructions on the character of music and pantomime movements (Avtonomova, 2000).

The theoretical substantiation of the genre *stage composition* is given by Kandinsky in his book *Concerning the Spiritual in Arts* (Kandinsky, 2008). The idea about the synthesis of arts often emerges in this book, but the word is defined as the *inner sound*. The concept of *yellow* is also in the focus of the theoretical problems of this book. This color coupled with blue makes *the first big contrast*: yellow – implies warmth, orientation towards the viewer, movement outwardly (eccentric); blue – means cold, orientation away from the viewer, movement inwardly (concentric).

The Yellow Sound was to have become a demonstration of the principles of stage art formulated by W. Kandinsky, and not only on the pages of a journal, besides – in 1914, the composition was conceived to be performed in the Munich Art Theatre, however the plan which W. Kandinsky developed together with the musician Thomas De Hartmann (*Thomas De Hartmann* 1885-1956) and artists August Macke (*August Macke* 1887-1914), Franz Marc (*Franz Marc* 1880-1916) and Alfred Kubin (*Alfred Leopold Isidor Kubin* 1887-1959) was implemented neither then, nor later during the author's life (Tulyakov & Bochkareva, 2009).

The emergence of A. Schnittke's idea about *The Yellow Sound* was related to the proposal of the Russian conductor Genady Rozhdestvensky (1931-2018) in 1974 to write a composition for the concert *Music and Painting* he was preparing then. G. Rozhdestvensky came up with the idea to choose as a theme something from works of painting, for instance, P. Klee, but A. Schnittke selected the scenario of *The Yellow Sound*. However, as V. Holopova and E. Chigareva note, due to some reasons the intended performance at Rozhdestvensky's concert did not occur (Holopova & Chigareva, 1990). The work had its premiere only in 1975, France, at a small festival held in a remote place Saint-Maximin-la-Sainte-Baume. In Russia, *The Yellow Sound* with A. Schnittke's music was performed for the first time in P. I. Tchaikovsky Concert Hall on January 6, 1984.

Composition *The Yellow Sound* by Wassily Kandinsky

The Yellow Sound by W. Kandinsky is a stage composition consisting of the introduction and six “pictures”. In the final variant of the title *The Yellow Sound* (the draft composition had the title *The Yellow Flower*) W. Kandinsky not only withdraws from objects, but also verbally characterizes the music material (sound) using tools of painting (colors). “Pictures” of the composition have no dialogues at all and consist basically of different *scenographic solutions, producer’s explications and remarks on actors’ performance* (Avtonomova, 2000, p. 109).

Esthetics of the theatre of symbolism, manifesting itself in allegory, estrangement of the drama world from reality, in focusing on human’s inner, spiritual quest, is one of the basic sources of the conception of W. Kandinsky’s theatric art (Podzemskaya, 2011).

Word sounds only in the introduction (like a choir singing behind the wings – 8 verses) and in pictures two (recitation by people in unshapely costumes – 6 verses), three (behind the wings some absolutely incomprehensible words are being shouted, for example, *kalyazimunafakolya!*) and four (a man orders a child – *Keep silent!!*) (Kandinsky, 2008, p.70).

In the few insertions of a sounding word, W. Kandinsky not only follows his own statements that a word should be used *for creating a mood*, but also gives a poetic interpretation of a contrast, which by his theory is as necessary in theatrical art. In his theory, W. Kandinsky rejects *the sense* of words, but in practice, he puts in them meaning important for understanding his conceptions.

According to D. Tulyakov and N. Bochkareva, in the form *The Yellow Sound* is published on the pages of *The Blue Rider*, it is a literary work. Paradoxically, but the synthetic composition turns out to be tightly linked with a word from the very beginning – although it is just a word, literature in a theatrical composition which in W. Kandinsky’s opinion is of secondary importance compared to other arts (Tulyakov & Bochkareva, 2009).

Color setting of the stage is not an indifferent background, but an active participant in the action. The narrative remarks reflect not only how important for the composition the color organization of the stage is, but also display the active, effective nature of the yellow color (See Fig. 1). The yellow color exists on the stage not merely as the color of something (giants’ yellow faces in the first picture, a yellow flower on a green hill and yellow flowers in people’s hands in the second picture, yellow giants in the fifth picture and a light-yellow giant in the sixth), but also as the color of a beam, as a concentrated manifestation of a yellow color *as such*. It relates, on the one hand, *to the birth of a new being* – a yellow color (Turchin, 2000), and on the other, to madness: *Yellow is a typically earthly color. ...If compared with the state of a human soul,*

it could be used as a colored expression of madness, however not as melancholy, but as a fit of an utter madness, of a blind rage (Kandinsky, 2008).

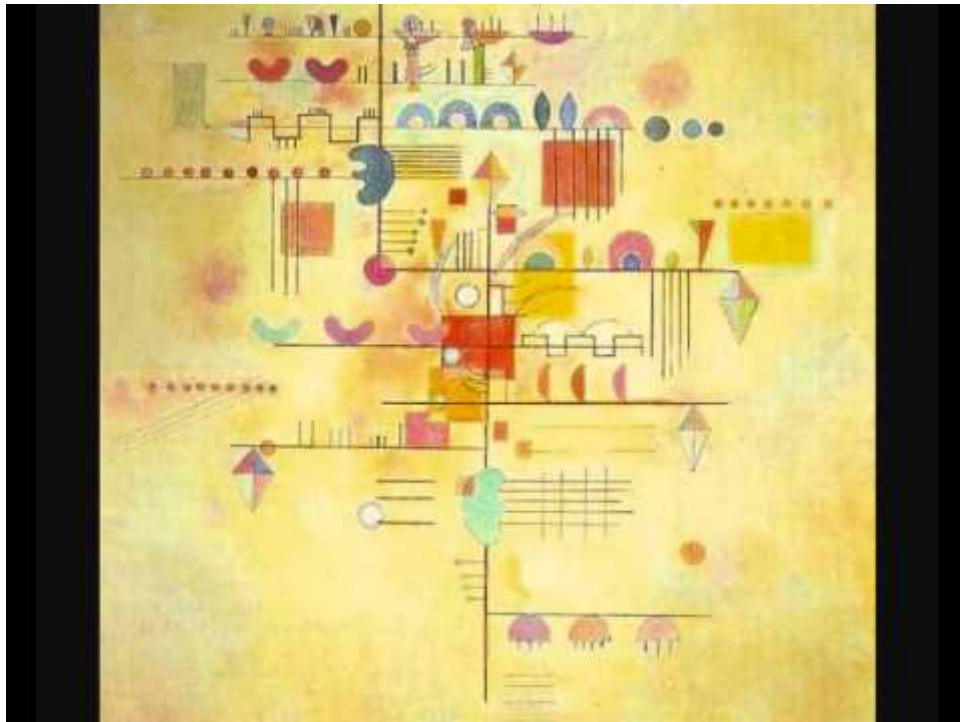


Figure 1 W. Kandinsky's *The Yellow Sound*

(https://www.google.lv/search?q=wassily+kandinsky+der+gelbe+klang&tbm=isch&source=iu&ictx=1&fir=QDkHeop20_UfwM%253A%252CuAoWwXtNoGd04M%252C_&usg=__MGVSHqe5inLxe9r2WxHdj2KquCw%3D&sa=X&ved=0ahUKEwiPxImWw9XbAhXjJZoKH YiwA8AQ9QEIKDAA#imgsrc=uo4Yg3TTe0CsnM)

The description of music takes a special place in the text of *The Yellow Sound*. The publication in *The Blue Rider* gives a detailed lighting plot and instructions on the nature of music and pantomime movements. Moreover, in the alignment of components, W. Kandinsky did not strive for unison, like A. Skryabin in *Prometheus*, but rather for a counterpoint of music and color. For instance, when color is maximally intensive, music, on the contrary, abates (c & Chigareva, 1990). The composition title itself shows the importance of the role of a sound. The specificity of *The Yellow Sound* lies in the fact that according to the author's conception, a real and not a metaphoric *inner* music must sound in it. In this composition, sound and visual events unfolding on the stage are inseparably linked.

Musical Interpretation of W. Kandinsky's *The Yellow Sound* by Alfred Schnittke

If A. Schnittke had exactly followed W. Kandinsky's conception, he would have produced an opera-pantomime. However, he confined himself to an instrumental ensemble and a lot of percussion instruments and the organ. Following W. Kandinsky's libretto, A. Schnittke created a double-purpose composition: to produce it on the stage and perform it at the concert with reproducing Kandinsky's pictures.

Its music retains the six pictures of W. Kandinsky's libretto, the characters' verbal text is used (very little) and the symbolic key sounds "a" and "h" are specified. In the original, the verbal text is given in German, and A. Schnittke translated it into Russian for his composition.

By the nature of the musical material, A. Schnittke's composition develops concentrically from a distinct melodic in Part I to its gradual melting, transforming into aleatory and improvisatory in the center and then again to a gradual restoring of melodic patterns towards the end; it is enflamed by a sonoric-type introduction and conclusion (Holopova, 2008).

Schnittke has keenly perceived the specific energy of the composition. To decode its hidden meaning, an extremely modern language was chosen. On creating the musical text, the composer scrupulously studies the instructions given by the artist, and this is reflected in the score. A solo intended by W. Kandinsky for a tenor is replaced by a solo for a soprano by the composer. Speaking about *The Yellow Sound* the composer emphasizes: *What concerns the colorfulness, here it is not only sonic, but also timbral* (Shulgin, 2004). The choice of the performers also testifies to this fact: in addition to a soprano solo and a choir, there are key (the piano, harpsichord, organ), string (the violin, contrabass, electric guitar), wind (the clarinet, trumpet, trombone) instruments and a group of percussion instruments with bells, tam-tam, marimba and a vibrator. The solo part is given a special role by the composer. Without giving a specific text to a singer, he uses several vocal-speech techniques which allow using a high female voice as a special timbral color. The timbre of the voice is approximated to instrumental sounding and the voice becomes an equal member of the instrumental ensemble.

The idea of the composition is defined by a composer as *a traditional conflict between Good and Evil, Light and Darkness. On the stage this is – a Heroine – an Eternal Light. A Male in White, a Yellow figure, who are opposed by a Black Man, and Giants. True, here the main thing for me was still the way itself to embodying this eternal dualism: I mean the relations between plasticity and light-color solutions, and revealing them in the static state and in the*

dynamic forms of sonoristic movement not approbated by me yet. (Shulgin, 2004).

The Yellow Sound is one of the most sonoristic works by A. Schnittke where the idea of interpreting a sound as a color is implemented on the level of contemporary possibilities in music. However even this music is not purely sonoristic, the composition is interwoven by a development of the melodic and rhythmic thematic aspect.

In his talk with D. Shulgin about the harmonic structure of *The Yellow Sound* score, the composer maintained that for him important seemed two ways: *one – this is a color-light play resulting not as much from a formal calculation as shining from inside, from some audible imagery fragments of the libretto; the second – building up the plot canvas with definite, well-considered temporal spaces, characters colored by the light of their own tones. Both ways were to merge in the symbols of actions, phenomena, different entanglements of the libretto always perceived intuitively – at least it was conceived in this way. What concerns colorfulness, here it is not only sonic, but timbral to the same extent also.*

In this connection, some sonoristic findings in the *The Yellow Sound* score can be mentioned: the unusual color at the beginning of the introduction – whispering of the choir upon entering; in timbral aspect it blends with the *whispering* sound waves created by tam-tam beats. From mysterious *sine-curve-like* sounds of the choir, the common sounding passes over to trilling of the clarinet and then to a steady rhythmic beat of the cembalo and the piano. Speaking about the sonority of the choir sounding, the composer himself emphasizes that in Part II – *it is a bewitching magic repetition of some sounds and short replicas; and spasmodic exhalations, different splashes, multi-layered pedaling – in Part III and Part V* (Shulgin, 2004).

Among the original sonic-intonation moments the color of the piano can be mentioned: *glissando* on the bass string, which sounds like the zither.

Apart from sonoristic techniques, the composer uses also rhythmic series in Parts I, II, V and VI, in Part III there is a lot of instrumental aleatory. Improvisational nature predominates in the musical canvas of the composition.

Originating from the laws of the musical language typical of the compositional technique of the second half of the 20th century, A. Schnittke's compositions have specific techniques that complicate their performance. These involve: the peculiarities of the structure of vocal and instrumental parts; new technical requirements for the performers; agogic methods; presence of the element of play.

Conclusions

- A. Schnittke retains the six pictures of W. Kandinsky's *The Yellow Sound* and chooses an extremely modern musical language to reveal the artist's conception.
- In the compositions of both authors the esoteric and mysterious aspects as if combine with the cosmic infantilism.
- Both authors exalt the simplest forms, both visual and sonic.
- The sonic-intonation improvisation of sound forms in A. Schnittke's works is subordinated to a strict compositional logic.

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THE METHODOICAL ASPECTS OF DISTANCE LEARNING FOR ART'S EDUCATIONAL PROGRAMMES

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Abstract. *The article discusses the problem of methodical aspects integration in distance learning for Art's educational programmes in Higher Educational Institutions (HEI). The relevance of research reflects the quarantine measures for the non-proliferation of coronavirus infection Covid19 in Art's universities of Kazakhstan in current state of distance learning. The novelty of the research is the implementation of educational policy according to the Kazakhstani state program within the conditions of distance learning. The aim of research is to reveal the methodological aspects for training Art students within distance learning in accordance with the topical problems in education, based on the new technologies and methods of digitalization. Primary methods of research are based on Case studies, which include theoretical review of the practical application of the MOODLE platform into distance learning. The result of the research is disclosure of the experience of the Art's teachers in conducting the study process within the framework of distance learning technologies (DLT). The research illustrates the example of study process of the Department of Scenography of T. K. Zhurgenov Kazakh National Academy of Arts based on the bachelor educational programs: Stage decoration, Multimedia scenography, Film and TV director, Stage costume, Theatrical makeup.*
Keywords: Art, Covid19, Distance Learning, Educational Programmes, Formation of Professional competence (FPC), MOODLE platform.

Introduction

The topicality of research is conditioned by modern challenges of distance learning in all levels of education in terms of restrictions from Covid19 coronavirus infection in global world.

The aim of research is to reveal the methodological aspects for training Art students within distance learning in accordance with the topical problems in education, based on the new technologies and methods of digitalization. The goal of the higher school of Kazakhstan is to meet the new requirements of innovative education, integrated with research activities, interdisciplinarity, close connection of study process with industrial consumers, and demand in the labor market.

Primary methods of research are based on Case studies, which include theoretical review of the practical application of the MOODLE platform into distance learning.

The base of research are bachelor educational programs of Art: Stage decoration, Multimedia scenography, Film and TV director, Stage costume, Theatrical makeup at Department of Scenography of T.K. Zhurgenov Kazakh National Academy of Arts.

The strategy of educational modernization, which will be implemented on the basis of scientific and technological acceleration (President of the Republic of Kazakhstan, 2014).

The global challenges of 2020 have set new tasks for educational institutions of all levels to introduce distance learning. In connection with the large-scale quarantine for the non-proliferation of the coronavirus infection Covid19, the universities of Kazakhstan decided to switch from full-time education to distance education.

Methodology

The type of research methods are Thematic Cases studies based on introduction into the study process of the methodological aspects of distance learning in educational programs of Art. The methods of analysis based on qualitative research in SPSS: descriptive statistics (mean). The methodological basic of research is contain official international, state and educational rules for educational institutions in Republic Kazakhstan as paradigm of the methodical aspects of distance learning for art's educational programmes.

The research process consist four stages: forming, storming, norming, performing. The research tools include documentation review, data collection procedure based on extensive facilities for analysing qualitative data. Some of optional modules have been collected into the forms of explanation, understanding or interpretation of the Formation of Professional competence of

students upon the Art Educational Programmes were invested. For samples of Distance Learning technologies and resources of Scenography' educational programs the description is given.

The data collection procedure is conditioned by the Rules for organizing the educational process in distance educational technologies (DET) were approved in T. Zhurgenov KNAA (Minister of Education and Science of the Republic of Kazakhstan, 2015). The adaptation of distance learning technologies (DET) for the development of educational programs by students in accordance with the academic calendar is implemented on the principles of modernization of consciousness - openness, pragmatism and competitiveness (President of the Republic of Kazakhstan, 2017). In accordance with the principles of the Bologna Declaration, the competence-based approach is integrated with the credit system of training in modular educational programs to individualize the student's direction of study (International Bank for Reconstruction and Development, 2010). Within the framework of the Improving the Quality of Education (Prime Minister of the Republic of Kazakhstan, 2019; 2020) at the Kazakh National Academy of Arts named after T. K. Zhurgenov, a distance learning system was introduced and methodological recommendations were developed for filling out assignments in the MOODLE system (T.K. Zhurgenov Kazakh National Academy of Art's, 2020).

In the context of the distance learning system, the key goals of the State Program are being implemented (T.K. Zhurgenov Kazakh National Academy of Art's, 2020):

- providing a safe and comfortable learning environment;
- introduction of an updated system for assessing the quality of students, teachers and educational organizations based on best practices;
- scientific infrastructure is being modernized and digitalized;
- the effectiveness of scientific developments increases and integration into the world scientific space is ensured.

Results and Discussion

The research is oriented onto finding new results of implementation Case study methods for Distance Learning upon Educational Programmes of Art. In the discussion is disclose the necessity to find optimal effective solutions for forced life situation within a limited time. The specific of application of Case study methods for Art' Educational Programmes based on Formation of Professional competence of students with practical oriented approach of study, is not matching with traditional distance learning study process. Thus, the condensed terms of Covid19 restrictions forced to accept the case solutions:

- 1) research of the proposed situation (case) of Covid19 quarantine all over the world;
- 2) collection and analysis of missing information of digitalization study process upon practically-orientated Art' Educational Programmes;
- 3) discussion of possible solutions to the problem with using several Distance Learning platforms (Moodle, Platonus, Zoom, Skype, Microsoft teams, Google);
- 4) working out the best solution adaptable for practically-orientated Art' Educational Programmes.

Improving the quality of education and providing the future of Kazakhstan with highly qualified personnel who can effectively integrate in the changed conditions of the global market, mastering the best foreign standards and technologies, is possible only if the educational process in distance educational technologies in universities is modernized (Mukhametkaliev, 2011).

The tasks of the innovative development of education in Kazakhstan dictate the need to introduce teaching methods and technologies in universities, which allow introducing the achievements of science and production to improve the quality of education in universities. In an overview and statistical analysis of global trends in various sectors and regions, the World Bank defined knowledge as “the heart and mind of economic development” (International Bank for Reconstruction and Development, 2010).

To implement innovations in education, it is necessary to revise the content of knowledge, the application and mastery of the methodology of this knowledge, as well as practical skills based on the implementation of Digital Educational Technologies (DET) into the theory and practice (Aminov, 2004). It becomes obvious that for effective activity in the modern conditions of the transit period, the personnel training system must modernize the goals of education, content, technologies, approaches, didactic principles, methods and forms of education (Zhanguzhinova, 2020).

A part of the technologies and resources acceptable for the university of Art's recommended by the Ministry of Education and Science of Republic of Kazakhstan for DET will consider below (Minister of Education and Science of the Republic of Kazakhstan, 2015), Which are used in the preparation of students in educational programs of Scenography.

Technologies and Resources of Scenography' Educational Programs

KazNAA named after T.K. Zhurgenov providing the educational services on the Distance Learning System (DLS) MOODLE - *an educational portal* - a system-organized, interconnected set of information resources and Internet services, containing administrative-academic and educational-methodological

information, which allows organizing the educational process in DET (T.K. Zhurgenov Kazakh National Academy of Art's, 2020).

MOODLE contains *online proctoring* - a system of identity verification and confirmation of the results of passing online exams (T.K. Zhurgenov Kazakh National Academy of Art's, 2020).

Conducting all types of classes (lectures, seminars, tutorials) is carried out through a massive open online course (MOOC) - a training course with massive interactive participation using e-learning technologies and open access via the Internet (T.K. Zhurgenov Kazakh National Academy of Art's, 2020).

- The specifics of the professional training of students in educational programs of Scenography includes multimedia resources - a complex of hardware and software tools that allow the user to work with heterogeneous data (graphics, text, sound and video) (Zhanguzhinova, 2020).
- The overwhelming majority of disciplines of educational programs of Scenography contain digital educational resources (DER) - these are didactic materials on the studied disciplines that provide training in an interactive form: photographs, video clips, static and dynamic models, objects of virtual reality and interactive modeling, sound recordings and other digital educational materials (Glossary..., 2006; Zhanguzhinova, 2020).
- All disciplines of educational programs Scenography contain Digital content - information content of digital educational materials (texts, graphics, multimedia and other informational content) (Zhanguzhinova, 2020).
- The approaches and didactic principles of educational programs of Scenography will consider below.

Approaches and Didactic Principles of Scenography' Educational Programs

The study of the methodological experience of the teachers of the Department of Scenography made it possible to identify approaches in teaching: *creative activity, practicaly-oriented, Art competence-based, modular*, including didactic principles, which will be disclosed below (Mukhametkaliev, 2011; Omirbaev, 2014; Zhanguzhinova, 2020).

The creative activity approach is based on taking into account the leading role of creative activity in the process of Art characteristics formation, its internal structures based on internal factors (Zhanguzhinova, 2020; Coghlan, Brannick. 2005).

The practically-oriented approach indicates the priority of the goal of practical skills development in Art educational process; (International Bank for Reconstruction and Development, 2000; Minister of Education and Science of the Republic of Kazakhstan, 2015; Zhanguzhinova, 2020).

The Art competence-based approach The formation of the study process as a dynamic system is conditioned by interrelated components (subjects of the pedagogical process, educational content, material base (technical means, tools) (Zhanguzhinova, 2020).

The modular approach to training students for educational programs of Scenography is an actual concept of organizing the content of modular educational programs is aimed at mastering certain competencies (Minister of Education and Science of the Republic of Kazakhstan, 2015; Zhanguzhinova, 2020), described in the form of learning outcomes (Glossary..., 2006; International Bank for Reconstruction and Development, 2010; Minister of Education and Science of the Republic of Kazakhstan, 2015; Tuning Educational..., 2000).

The activation of problem teaching methods in educational programs of Scenography will be disclosed below.

Activation of Problematic Teaching Methods in Educational Programs of Scenography

In the context of the organization of the educational process in DET, problem-based learning is a key way of organizing the activities of students to obtain information by solving theoretical and practical problems in the problem situations that arise due to the force. The activation of problem-based learning in DET contributes to the active interaction of students with the problem-presented content of education, during which they become familiar with the objective contradictions of scientific knowledge and ways to solve them.

The use of approaches: activity-based, personality-oriented, competence-based, modular, including didactic principles, helps students learn to think, creatively assimilate knowledge. The following are the principles of teaching in educational programs of Scenography:

1. The *active teaching methods* that contributed to the formation of:
 - pedagogical interaction (students, teachers, employers);
 - value attitudes and interest in the profession, stimulating, communicative, heuristic, cognitive knowledge, skills, attitudes of students;

- manifested in the forms of work: lectures, special course, information, discussion, conversation, course project, master classes, studio work;

2. *The problematic methods* aimed at:

- simulation of a real situation / role interpretation for the design of creative proposals / solutions, know-how, a bank of ideas, brainstorming based on the topics of the Modular educational program;
- formed: author's style, research, conceptual, pedagogical, production-technological, activity-practical, variable, interdisciplinary, project knowledge, skills, attitude of students;
- manifested in the forms of work: individual / group lessons / trainings, self-education, project, portfolio, reproduction, interpretation, application of new information-interactive on-line technologies, Internet resources, module, practical lessons, student independent work, specialized training, educational industrial training, practice;

3. *The demonstration methods* focused on:

- statistical, conceptual generalization, statement of facts and learning outcomes of students based on the Methodology;
- for the formation of: systemic, statistical, rational, predictive knowledge, skills, attitudes of students;
- manifested in the forms of work: presentation, fashion show, performance, defile, exhibiting, demonstration, exam, control task, final / midterm control, verification, questioning, testing, certification, monitoring (Zhanguzhinova, 2018).

The identified methods of organizing the pedagogical process are reflected in Table 1:

Table 1 Scheme of Methods of Shaping Professional Competence of Students Enrolled in Scenography' Educational Programs (Zhanguzhinova, 2018)

Active methods	Problem methods	Demonstration methods
Familiarize with information	Develop motives of students	Form knowledge of students
Reveal the theoretical and practical basis of the Methodic	Disclose the content of MEP	Develop skills of students
Form of Professional competence of specialists	Form practical students' skills	Form a relationship of students

On the basis of the identified methods, below are the forms of organizing the pedagogical process in educational programs of Scenography.

Educational Forms of the Organization of Pedagogical Process for Scenography' Educational Programs

The study of the theoretical and practical foundations of the Methodology of educational programs of Scenography revealed the forms of work in the study:

- *lectures* - based on the exchange of information, discussions and discussion of the problem on the topic of the Modular educational program;
- *course project* within a module - based on the Modular educational program;
- *practical classes* - focused on profile, educational and production training and practice, as well as self-education of students and the use of new information technologies;
- *portfolio* - systematizing and visually demonstrating the results of the student's project and his interpretation of the concept on modeling a real situation;
- *presentation* - demonstrating the practical results of the completed project (models) in the material as part of the performance, exhibiting;
- *control (midterm / final)* - aimed at identifying the results at different stages of training in order to determine the learning outcomes based on the assessment, as well as to identify the levels of professional competence of students.

The study of the methodological experience of the teachers of the Department of Scenography made it possible to determine that the forms of work contribute to the implementation of all types of activities of students in educational programs of Scenography in study process.

The research revealed the methods and forms in the organization of the pedagogical process of the Department of Scenography (Zhanguzhinova, 2018) (see Table 2.).

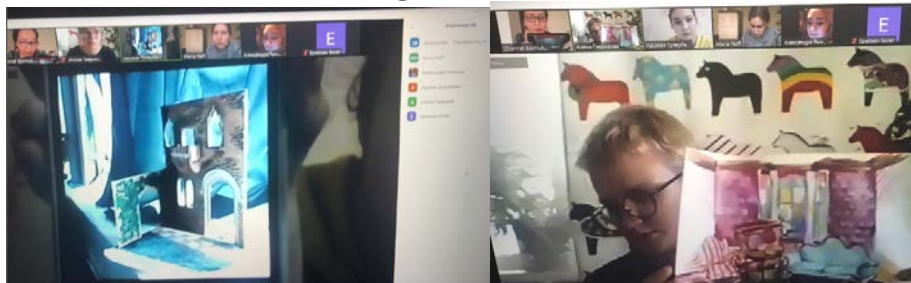
Thus, the Methods and forms of organizing the pedagogical process in educational programs of Scenography have their own specifics in connection with the formation of the professional competence of bachelors of Art, based on the types of activities (Zhanguzhinova, 2018). All technologies, approaches, methods and forms of organizing the pedagogical process are structured in accordance with the Rules for organizing the educational process for distance educational technologies (Legal information..., 2015).

Table 2 Methods and Forms of the Organization of Pedagogical Process in Scenography' Educational Programs (Zhanguzhinova, 2018)

Traditional methods	Methods of Formation of Professional competence	Forms of work
<i>Verbal</i> – form theoretical knowledge of students	<i>Active</i> – are the basis of cognitive activity of specialists	<i>Lectures</i> – based on verbal methods
<i>Project</i> – form project knowledge of students		<i>Course project</i> – is the basis of design and active methods
<i>Cognitive</i> – form the motivation of students	<i>Problem</i> – develop the professional skills of specialists	<i>Practical classes</i> – are based on cognitive, problematic, organizational-management, practical methods
<i>Organizational and managerial</i> – are the basis of practical activities of students		
<i>Practical</i> – form the skills of students		
<i>Demonstration</i> – form the attitude of students	<i>Demonstration</i> – form of the Professional competence of specialists	<i>Portfolio, presentation, control (boundary / final)</i> – are the basis of demonstration methods

The photo report on conducting DET classes for educational programs Art (Scenography) along five educational trajectories - Stage decoration, Multimedia scenography, Film and TV production designer, Stage costume, Theatrical makeup presented below on Figure 1.

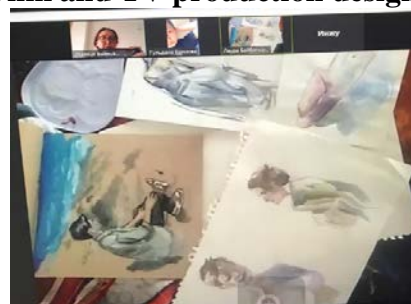
Stage decoration



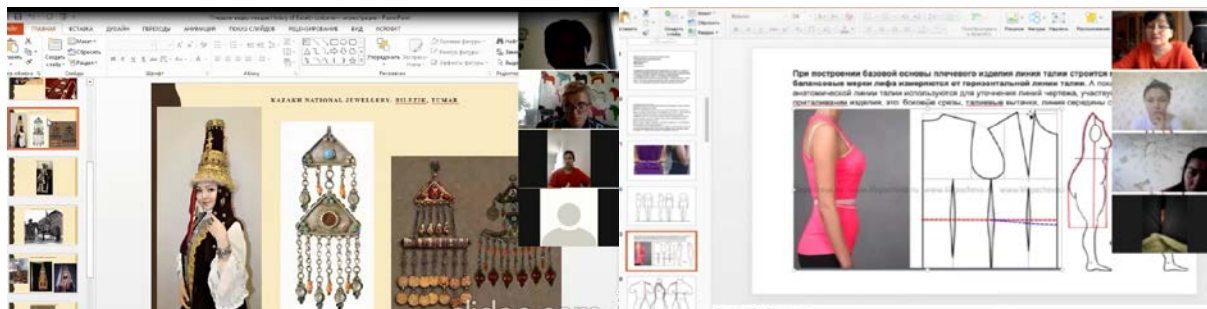
Multimedia scenography



Film and TV production designer



Stage costume



Theatrical makeup

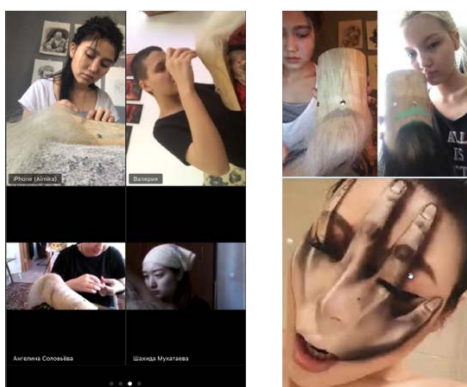


Figure 1 *The Conducting DET Classes for Educational Programs of Art*

Conclusion

The integration of methodological aspects into distance educational technologies on the example of the Department of Scenography of the Kazakh National Academy of Arts named after T.K. Zhurgenov on the preparation of bachelors of Art in educational programs Scenography on five educational trajectories - Stage design, Multimedia scenography, Film and TV production designer, Stage costume, Theatrical make-up is shaped by Case studies' stages:

1. The formation stage, based on wide analysis define the goals, and orientates and structuring means of achieving them.
2. At the storming stage, hypotheses are put forward and a confrontation arises, reveal the existing contradictions, help to reveal the balance, due to the deep research of problem.
3. At the standardization stage the immediately collected information, structuring organizational principles of work, arranges interaction between students and teachers, for the result of convenient interaction.

4. The performing stage based on a well-designed, visually informative and qualitative presentation with clearly formulated objectives for the Art educational programs helps to formulate the conclusions and recommendations.

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