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# **SOCIAL SCIENCES** PHILOSOPHY AND RELIGION AAAB HISTORY ARCHAEOLOGY, ANTHROPOLOGY, ETHNOLOGY AC POLITICAL SCIENCES AD MANAGEMENT, ADMINISTRATION AND CLERICAL WORK AE AF DOCUMENTATION, LIBRARIANSHIP, WORK WITH INFORMATION LEGAL SCIENCES AG AH **ECONOMICS** Al LINGUISTICS LITERATURE, MASS MEDIA, AUDIO-VISUAL ACTIVITIES AJ SPORT AND LEISURE TIME ACTIVITIES AK ART, ARCHITECTURE, CULTURAL HERITAGE AL PEDAGOGY AND EDUCATION AM AN **PSYCHOLOGY** SOCIOLOGY, DEMOGRAPHY AO MUNICIPAL, REGIONAL AND TRANSPORTATION PLANNING AP AQ SAFETY AND HEALTH PROTECTION, SAFETY IN OPERATING MACHINERY

#### YOUNG FAMILY: POPULARIZATION OF FAMILY VALUES

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Abstract: This paper looks into the specific situation of young family against the background of Russian civil society and social state development. The social policy in the Russian Federation is aimed to support young family, promote responsible parenthood, and protect motherhood and childhood. The paper is dealing with one of the urgent social problems facing the world community, which revolves around various fields of scientific knowledge, i.e. transformation of modern family forms. The authors consistently describe the current social problems encountered by young families, analyze the results of sociological studies of recent years, using the secondary analysis of data and providing the recent statistics, and present the results of their own theoretical, methodological and practical research.

Keywords: young family, self-actualization, young family, self-actualization, family's educational potential, responsible parenthood, social policy, popularization of family values, scheme of informational support for young people.

#### 1 Introduction

The establishment of civil society in Russia, which is a strategic goal of changes occurring in the country's political and social systems, leads to the transformation of social institutions (Moscovici, 1997). One of such institutions is family, which is the key factor of socialization, personality formation and cultivation of the sense of nationhood (Akvazba et al., 2019a).

By 2016, there were about 6 million young families in Russia, which is a considerable portion of the country's population (over 20 million people). As the Concept of State Policy for Young Families states "these are young people and young families that are the leading force in the implementation of virtually all priority national projects in Russia" (The Concept of State Policy in Relation to Young Family, 2008).

Along with the large number of marriages, there is also a large number of divorces, according to the Federal State Statistics Service. The number divorces in 2016 reached 61.7% of registered marriages. According to the Federal State Statistics Service, 72% of marriages are made between young people under 35 years of age, so this category of citizens is most exposed to the risk of divorce (Operational Indicators for the Period from 1945 to 2020).

Young families have a large role to play in the society (Monitoring of Socio-Economic Potential of a Family N1, 2002). Young families, as one of the main social institutions, are the target of sociological research (Znaniecki, 1954). It is the young family that lays the foundation for the future society, but it has neither life experience nor, in most cases, sufficient financial resources (Rodionova et al., 2017). The major problems of young families are usually the same as the problems of socially vulnerable categories (lack of housing, employment problems, psychological, financial and economic difficulties, cheating and conflicts, etc.) (Lisovsky, 2016). According to the statistics, in 2018, the number of marriages in Russia was 1,019,800 and the number of divorces was 853,600; which translates into 7.1 marriages and 6.0 divorces per 1000 people (Akvazba et al., 2018). In the Tyumen region, the number of registered marriages in 2018 was 30,028, and the number of divorces was 24,226; making it 9.2 marriages and 7.4 divorces per 100 people (Tyumen in Numbers. Demographic Situation, 2019).

Social and community work with young families includes the normalization of family ties between spouses, between parents and children, and this is a task to be tackled not only by family and child support centers (Kozyrev, 2000). The effectiveness of efforts to strengthen responsible parenthood, help couples sustain healthy relationships and enduring marriages is improved through the interaction of social institutions with educational and medical organizations and civic movements (After a Wedding,

1995). Family planning centers play an important role in solving this social problem (Polivalina, 2001).

#### 2 Literature Review

Innovative potential and urgent problems of youth have provoked strong interest of many researchers exploring certain aspects of the behavior of young couples in marriage (Kalamaldinov, 2017).

Contemporary researchers pay attention to such issues as the forging and evolvement of relationships in young families (Tajfel, 1978); motives for entering into marriage; criteria for choosing a marriage partner (Allport, 1964); readiness of young people for marriage, etc. The problems of the family are also highlighted in periodicals (Family in Russia, Social Security, Social Work, etc.) (Akvazba et al., 2020).

The households of many young families are now run based on three pre-cultures: psychological illiteracy - poor knowledge of female and male psychology, the basics of emotional relations in the family; sexual ignorance - poor knowledge of the laws of human sexuality; educational illiteracy - poor knowledge of the root differences between child psychology and adult psychology, the inability to raise children consistent with their psychological needs and in the spirit of the current way of life (Akvazba et al., 2019b).

The problems arising in young families lead to conflicts (Kozyrev, 2000). The problem of young family durability becomes more urgent than ever, especially in a situation when youngsters prefer uncommitted relationships and late marriages (Bogdanovich, 1990). The problems of family as one of the social institutions were also of interest to foreign authors in the aspect of social transformation (Wilding & George, 1975) and social mobility (Statham et al., 2008). The family stability, the birth of children in marriage and their nurturing by both spouses are of paramount importance and are the main guiding principles beneath the activities of various public organizations on family affairs (Sorokin, 1927). However, not only objective difficulties and non-readiness of young people for family life may lead to young family disintegration (Govako, 1988), high requirements for the partner's personality in marriage also pose a complex problem that young families may develop. Unpreparedness for family and marriage is adding to the frequent outbreak of conflicts in the family and financial dependence of young family on parents.

#### 3 Materials and Methods

The author's major focus was on the need, first, to reveal the features characteristic of young family, identify its essential needs and major problems; second, to build a social profile (descriptive model) of a young family in the Russian Federation based on the generalized findings of theoretical and methodological studies undertaken by representatives of this scientific field and the conducted sociological survey; third, to study the accumulated practical experience and to develop possible ways to provide more effective aid to young families.

For monitoring the situation of young families in the Tyumen region, a sociological study was conducted. The research object: young families from Tyumen. The research goal: to determine the situation of young families and to reveal the scope of their needs and problems in the modern conditions.

Certain objectives need to be addressed in order to reach this goal:

- collect and analyze information on the economic, social, demographic, and household situation of a young family with the help of a questionnaire survey;
- find out the causes of instability of young families in Tyumen:
- explore the problems suffered by a modern young family;

- build a social profile of a young family;
- identify the ways to help young families overcome difficulties.

The sample population composition was as follows: in the study, young families aged from 18 to 30 years made up the general population. The sample population included 20 young families, i.e. 40 people: 20 males and 20 females. An anonymous questionnaire survey was conducted in April 2019.

In order to get an idea of the experience accrued in organizing activities aimed at cultivation and popularization of family values among young people, and of the forms, methods and tools of work, we have examined the practical experience of the Tyumen Region authorities in implementation of such initiatives.

The main methods of work were the comparative analysis of the available theoretical, methodological and scientific materials revealing the specific situation of the Russian young family; generalization of the experience accumulated by the Tyumen Region authorities in their efforts to promote responsible parenthood; and secondary data analysis.

#### 4 Results and Discussion

Analysis of the scientific and methodological body of knowledge on the family problems has yielded the following results.

Young family as one of the vulnerable layers of the society experiences certain social, psychological, legal, economic, healthcare and financial problems. Thus, for example, as concerns financial problems: material wellbeing at the outset of family life does not guarantee happy marriage, however the married life of young people should rest on a rational basis. Financial problems exist in all young couples, regardless of their wealth. In the beginning, young family spends a lot of money to build a nest (Kozyrev, 2000). This trend continues today.

A survey among young families showed that impact of the income levels on creation of own family through either registered or unregistered marriage is less than the impact of the level of education. Low-income families account for 57.5%, while the share of the needy in the sample reached 70%, which, in turn, demonstrates the mindset, to a certain extent held by young people, to start their own family after reaching a certain level of financial security. The overwhelming majority of families comprising young workers and job seekers are low-income families, with over 40% of such families among students. The proportion of high-income families is almost five times higher among families of students than among families of young workers or job seekers (22.8% and 3.4-5.0% respectively).

Thus, only young people from high-income families may continue their studies. For most young people, creation of their own family entails a need to find their own source of income. Young people faced with the choice between family, work and study give priority to family and work, which obviously reduces their level of education. As a rule, children of wealthy parents can afford to start a family and continue their studies. This conclusion is verified with the analysis of financial security of young people in unregistered marriage, which revealed that the money factor is the main reason why official registration is pushed back. The institution of informal marriage is rather popular among students, and one in two marriages is unregistered.

The desire of young people to live separately from their parents is choked for most of them by the financial factor. The proportion of working and job-seeking young people living separately from their parents decreases as the level of welfare increases. Separately living young people account for 30% of the unemployed, while among employed their share is slightly over 20% (Akvazba et al., 2020). A relatively high proportion of high-income separately living youngsters is apparently linked to the ability of their parents to sustain adequate living standards for them.

A survey conducted at MSU showed that all young spouses without exceptions intend to have children. Only 3% of male and 2% of female students at Lomonosov Moscow State University choose to be childless. Therefore, whether or not to have children is out of the question for young spouses. The only question is 'When?' (Monitoring of socio-economic potential of a family N1, 2002).

In many families, there is a clash between the old and the new marriage norms. Family conflicts may arise for various reasons, and it should be kept in mind that conflicts are not always destructive; on the opposite, they may contribute to the family thriving.

Young people, before starting a family, have an idea of their future marriage, which may later cause the dissonance between expectations and reality and trigger a conflict.

Dominance in a family relationship may provoke the role conflict, as well as a problem of functional responsibilities distribution.

Birth of a child to a family brings new roles, which entails moral and physical strains. Family adaptation becomes a tremendously difficult task for spouses raised in a single parent family or without a family. They have a very vague idea of the role of a father who was absent from their former family, while the role of a mother who was a single parent seems too independent and self-sufficient (Govako, 1988).

Unfortunately, divorce in a young family is rather common. The causes of divorce may be as follows: abuse perpetrated by one spouse against the other (the problem of cruelty and domestic violence in the family; for women who have been subjected to domestic violence, crisis centers are created where they are provided all kinds of assistance); pathological stinginess; neglect of the family and associated responsibilities.

The families in which the spouses grew up may be the trend predicators: parental divorce is predicating the divorce of children raised in this family.

These are the main problems facing young family today and interfering with its core functions, they are multifaceted and require a great deal of attention not only from the Department of Family, Motherhood and Childhood, but also from agencies and institutions that do care about the future of Russia. Today, the Russian Federation has taken enhanced measures to support family, motherhood and childhood, which implementation provides a state guarantee of the family security and stability, and gives hope for solution of the socio-economic problems of young family.

In line with the second objective of our research, we would like to present the socio-psychological profile of a young family in Russia. Today it is as described further. The age of the young family is from 18 to 30 years old (35 according to the regulatory documents that guarantee social allowances and benefits); childless, either with one child or with two or more children, but socially disadvantaged (heavily relying on social allowances and benefits); life priorities, as a rule, are aimed at career advancement, but in most cases they are financially dependent on parents and have no housing of their own; another important feature of the young family is proneness to conflicts.

In line with the third objective, the monitoring results may serve to reveal the current specific situation of young families, particularly in Tyumen region. The attitude to a young family should be based on a reasonable combination of social support and benefits, which are necessary both for protection and for ensuring proper conditions for its working activities, evolvement and self-expression. The state should help the young family, but not replace it, and provide an environment for its creative self-expression; therefore, it should take a more active role with regard to this social institution. There is also a need to develop educational programs to train and prepare young people for family life, to create clubs for raising their awareness of

reproductive health, parenting, etc. The authorities should be more seriously involved in the affairs of the young family and only on this condition, the social problems of young families may be gradually eliminated.

At present, work with the family implies diverse efforts. The main goals and objectives of work with families include: development and implementation of measures to strengthen young family as a reproductive social unit; adaptation of young family; improvement of material, moral and spiritual state of young family; creation and development of a system of sociopsychological support for young family; creation of favorable conditions young family to successfully combine social and household running functions; stimulation of business activities of young people; and organization of family leisure and recreation.

Social and healthcare institutions provide assistance to many categories of population, so they have no possibility to pay sufficient attention to young family. For such purposes, the initiative to establish young family centers and clubs has been rolled out.

Having analyzed the experience of Tyumen Region and other regions in this area, we may draw a conclusion that support for young people in the dimension of family relations is provided both by the state and administrative structures, as well as at the initiative of other organizations and institutions whose initial lines of activity have originally had a different direction. Since one of the widespread forms of work with young people are interest clubs for adolescents, young adults and families, it may be concluded that club activities spark interest in young people and are effective in implementation of the key state youth and family policies.

The club form of work has proven to be an effective means for solving current problems of its participants, and presently there are clubs catering for various interests. One of the common club types is the family club as a public association of one or another legal form that is usually created at the initiative of the community or established by agencies dealing with the youth affairs or other state and public organizations. The key government youth policies are often implemented through a network of clubs.

#### **5 Conclusion**

Young family holds a special place in our society. From the society development perspective, it bears the greatest value. The concept of young family is characterized by the following criteria: the count of marriage (it must be the first officially registered marriage), marriage duration (up to 3 years), spouses' age within a certain range (from 18 to 30). Young family in Russia is a family in the first three years after marriage (if there are children in the family, marriage duration is not limited), provided that one of the spouses has not reached the age of 30 (Akvazba et al., 2020).

By the young family composition, the distinction is made between well-functioning young families and social-risk families that include single-parent families, student families, and families with underage mothers where fathers serve their military duty.

Preparing young people for family life is just as important a problem as preparing them for professional life and helping them adapt to life in the society. Family values need to be cultivated from early age in the parent family and further at school and other educational institutions, youth organizations and in the work environment.

Family as a social institution holds enormous potential for child's socialization. The success of socialization process is hinged on the educational capacity of family that can be built and developed by various methods of work.

Society benefits from prosperous family capable of developing and implementing its own life strategy, thereby not only

ensuring its own survival, but also having a sizable impact on the future of the country.

Today, the society development sets out a new vision of the role played by purposeful preparation for family life in the formation of adolescents' personality, in solving professional, social, economic and personal problems they face, as such preparation for family life is a conduit that enables adaptive and educational functions between the society and a person. Support for young people in their family life is fully and broadly represented in the Russian Federation, and the Young Family program has been implemented in various regions for about 10 years (Akvazba et al., 2019b).

Regional experience indicates that creation of a scheme of informational support for young people based on the program of clubs for young families seems to be an appropriate and effective way to meet the social order from the state.

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**Primary Paper Section:** A

Secondary Paper Section: AM, AO

## MONITORING THE QUALITY OF STUDENTS' TRAINING AS A TOOL FOR MANAGING THE EDUCATIONAL PROCESS AT HIGHER SCHOOL

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Abstract: The relevance of the problem under study is due to the fact that more and more attention is paid to the quality of modern education. The objective of the paper consists in describing the approaches available in science as for organization and performance of testing and assessing the training level of the educational subjects. The leading methods of work are analytical review of scientific and methodological literature detailing questions on organization of the training quality assessment process; analysis and summing up best practices of using the testing and assessment materials and pools of assessment means; systemizing and summing up facts and concepts. The materials of the paper can be used in educational process of higher educational institutions for improving the students' knowledge quality assessment system.

Keywords: monitoring, assessment means, quality of training, students, educational process.

#### 1 Introduction

The upgrade of Russia's education implies solving an entire range of problems, among which a special status is given to assessing learners' knowledge and achievements, checking the results of training in accordance with the requirements of the Federal State Educational Standards (FSES), as well as to enhanced attention to questions of the quality of education. Introduction of new educational standards and orientation of the higher school to the multi-stage system of students' training highlights the fact that approaches to training quality assessment have to be reconsidered.

In the recent decades, the problem of assessing learners' knowledge and achievements has been an object of close attention. The idea of using monitoring actions, its importance for educational process, description of knowledge assessment procedure using the case of general and secondary education get increasing coverage in the contemporary research works.

In particular, the importance of monitoring actions is noted by I. M. Aganov (2014), K. K. Toregheldieva (2014), T.A. Bezusova (2018), R. A. Valeeva (2014) et al. Attempts have been made to describe methods and algorithms of monitoring in the sphere of education (Toregheldieva, 2014; Erik, 2005; Sallis, 2002; Seymour, 1992; Srikanthan & Dalrymple, 2002; Starichenko, 2013; Van Kemenade et al., 2008; Vinokurova et al., 2016), to analyze the international experience of using the results of national monitoring surveys (Valdman, 2015; The ECTS Grading Scale, 2015; International Grade Equivalencies), to automate monitoring (Kataev et al., 2017; Weiss & Kingsbury, 1984; Zhao, 2002), to monitor individual parameters (personal and mental universal learning actions A. N. Yashkova (2013); the quality of speech skills and abilities - D. K. Bartosh, N. S. Trukhanovskaya (2016)).

In spite of researchers' close interest in the problem of efficient organization of assessing and testing knowledge, abilities and skills of the subjects of educational environment, it is the question of monitoring students' knowledge and achievements as a tool for managing the educational process at higher school that remains the most debatable one, as before.

#### 2 Literature Review

The modern ideas of and approaches to the assessment of educational results, scientific facts, and general questions associated with the description of monitoring as a way for managing the quality of training are presented in the works of I. M. Aganov (2014), V. Zaytsev (2002), V. G. Kazanovich, N. A. Selezneva, A. I. Subetto (2001), A. N. Mayorov (2005), E. I. Pryn (2017), K. K. Toregheldieva (2014) et al.

A large number of works deal with assessing the quality of education as related to students' satisfaction level (Athiyaman, 1997; Choon, 2010; Elliott & Shin, 2002; Ham & Hayduk, 2003; Suhre et al., 2007).

The materials of G. A. Vinokurova (2015), I. B. Buyanova, D. V. Zhuina (2012), S. N. Gorshenina, I. A. Neyasova (2018), E. A. Matrosova (2018), N. Sh. Nikitina (2003), M. V. Alaeva (2017) and others describe particular educational results assessment tools.

The analysis of scientific and methodological literature shows that the notion "monitoring" is extensively considered as:

- the process of tracking the condition of an object using the continuous or periodically repeated collection of data that are a total of specific key indices (Zeer, 2013);
- the system of collecting, processing, storing and sharing the information about a system and individual elements thereof which is oriented to information support for managing this system, which allows judging about its condition at any point of time, and which enables one to forecast its development (Mayorov, 2005).

According to the authors' understanding, *monitoring* is a systemic integral process that allows tracking the condition of any characteristics for subsequently including the findings into the process of management and change.

Monitoring has a number of distinctive features. First of all, it is an integral system of actions. Secondly, unlike other close or similar pedagogical and psychological notions, monitoring is characterized by:

- 1. continuity (the data are collected continuously);
- diagnosticity (there are criteria for assessing the quality of results):
- the informative value (tracking criteria include the most problem-laden indices that allow concluding about distortions in the processes being monitored);
- feedback (for making corrections to the process being tracked):
- scientific integrity (justified models are used and parameters are tracked).

Monitoring is multi-functional. It is first of all targeted at:

- identifying and assessing the level of knowledge, abilities and skills;
- boosting the learning material acquisition process.

In the educational environment of higher educational institutions, objects of monitoring can be educational conditions, performance, academic and professional activity of learners, development of students' personalities, professional activity of teachers, etc. These are studied using various assessment means.

By assessment means, the total of materials, measuring tools, forms, and procedures used for assessing the formation level of educational results is understood.

Testing and assessment materials are a type of assessment means; they are specially designed ways for testing the extent of formation of learners' competencies expressed in quantitative

and qualitative indices that allow demonstrating the extent of learners' knowledge, abilities and proficiencies.

Among the tasks of testing and assessment materials, the following are singled out: the possibility of assessing educational achievements, identification of gaps in knowledge, higher transparency and objectivity of testing, "substantiation" of achieving the declared results.

Testing and assessment materials have to conform the requirements of:

- validity (being able to obtain a result in line with the objective);
- reliability (being able to obtain similar results in similar cases):
- consistency (selecting ordered content-related elements united by the certain hierarchy and shared structure of educational results);
- significance (containing significant elements reflecting the planned results);
- objectivity (excluding subjective errors in the assessment; standardized procedure).

Various assignments can act as testing means. For example, these are tests, modeling, cases, portfolios in subjects, reports on practice training, etc. They are used within the continuous, interim or independent monitoring.

Continuous assessment is an important means for improving the students' knowledge level in subjects. It has to cover all students (including ones absent from classes for a valid reason). The main purpose of continuous assessment is to identify the students' knowledge level, to adjust forms and methods of their independent work. During continuous assessment, students' abilities of systemizing the knowledge available and using it in practical situations are also formed. For this assessment, the check of lecture notes, recitation at classes, review works, discussions, and defenses of problem-focused projects are used.

Interim assessment has the following types: exams, credits, assessment of performance in the period between exam sessions, review works provided for by the curriculum and working program, reports on the results of practical works, etc. The preparation for interim assessment is performed within students' independent work, and the defense in person is compulsory.

Independent monitoring of learners' knowledge is conducted for the purpose of assessing the relevant learners' knowledge and the formation extent of competencies in them. Its performance implies participation of the teachers who do not hold classes on the particular subject for the group of students being tested.

#### ${\bf 3} \ Research \ Methodological \ Framework$

The research work was conducted on the base of Mordovian State Pedagogical Institute named after M. E. Evseviev during the period from the 2016-17 academic year to the 2018-19 academic year. The total of 145 students of the faculty of psychology and defectology (training focus area – Psychology) took part in the research.

The objective of the research is to analyze the experience of the use of testing and assessment materials on the base of the faculty of psychology and defectology at the Mordovian State Pedagogical Institute named after M. E. Evseviev.

Its tasks were as follows:

- To analyze monitoring actions held by the department of special and applied psychology over the recent three academic years;
- 2. To present the results of monitoring actions performed;
- To outline a number of problems and promising lines in this area needing further consideration.

The following methods were used in the research process: analyzing and summing up best practices; systemizing and summing up the data available; monitoring tests.

#### 4 Results and Discussion

The analysis of best practices has shown that during various forms of assessment (continuous, interim, and independent ones) teachers of the department of special and applied psychology use the following testing and assessment materials the most frequently:

- Tests for checking knowledge, abilities, skills, and the formation level of competencies in various subjects. The following kinds of tasks are used in developing subjectspecific and other tests:
- the comparison ones ("What is the similarity of ...?", "What are the differences of ...?", "The attributes distinguishing ... from \_\_"):
- ones in establishing cause-and-effect relations ("What change will occur in ...?", "What was the cause of ...?", "What relation is there between ...?", "What does ... depend on?");
- ones in identifying the objective of a process ("What objective is pursued by ...?", "What is the purpose of ...?", "For what is ... performed?");
- ones in identifying characteristic features, signs or qualities ("Specify the particularities of ...", "Give signs that are characteristic for ...");
- ones in classifying objects according to a given attribute ("Specify ..., belonging to ...", "Into what groups is ... subdivided?", "What is referred to ...?");
- ones in identifying the meaning of a phenomenon / process ("What is the influence of ...?");
- the substantiation ones ("How can one explain ... ?", "The higher ... while ... is reduced is explained by ...");
- the summarizing ones ("What conclusion can be made...?", "The essence of ... consists in ...").
- 2. Review work is a form of checking and assessing the acquired knowledge, obtaining the information about the nature of cognitive activity, the level of independence and initiative of learners, about the efficiency of methods, forms, and ways of learning activity. There are review works of continuous and final assessment; the written, graphic, and practical ones; the ones targeted at all students or individual ones.
- 3. Case method (the method of particular situations) is one of the methods for checking knowledge and abilities. Students are given descriptions of real educational, psychological, social, and other situations. They have to explore the situation, look into the essence of the problem, suggest possible solutions, and choose the best one out of them. The cases are based on real-life material or are approximated to real situations.
- 4. Learning and professional problems allow assessing the formation level of competencies. Solving the problems, students give general evaluation of situations, select ways of acting, assess the effects, etc. Wording of problems points to the objective and serves as a criterion that allows one to judge about approaching the objective.
- Panel discussion is an open discussion of a set problem among the participating students. This is an exchange of opinions on the given topic, as well as getting answers from an expert teacher to the questions of interest on the topic being discussed.
- 6. Development and defense of a study project. A study project is a set of exploration, research, graphic and other works performed by students independently with the objective of solving a significant problem practically or theoretically. The said assignment allows assessing both academic knowledge and practical abilities.
- Portfolio is a way of recording, accumulating and assessing students' individual achievements; it is also a report on the process of learning that allows seeing the picture of particular educational results, ensuring that students'

individual progress is tracked, and demonstrating their capacity for applying the gained knowledge and abilities in practice.

 Modeling and analyzing the situations is a practice-oriented task that allows assessing abilities, skills, and formed competencies of students. Modeling is focused on a situation or a fragment of reality.

The listed variants of testing and assessment materials are used as independent assessment means in intramural and extramural work. They perform the controlling function and allow assessing the primary "preparation" level of students, as well as managing the educational process.

Let the results of monitoring actions performed by the department of social and applied psychology over the recent three academic years, from 2016 to 2019, be cited (Table 1). In the said period, the department was busy carrying out the independent monitoring of the quality of students' knowledge. The teachers prepared independent monitoring schedules and testing and assessment materials in subjects for each learning term. As assessment means, tests, review works, cases, problems, portfolio, development and defense of study projects were used. The assignments suggest for independent assessment of students' knowledge are integral and diverse as for their types and content. All assessment means undergo expert appraisal first to find out their relevance for the study subjects, representation of its completeness and practice-oriented character; they are also approved at the meeting of the department and are recommended for using for independent assessment of learners' knowledge in particular subjects. On average, during each academic year, they performed 15-35 monitoring actions of various levels. According to the results of monitoring, the findings were analyzed, analytical reports and systems of correction measures were prepared.

Table 1 shows the results of monitoring actions carried out by the teachers of the department of special and applied psychology with students of different years of study in the Psychology training focus area.

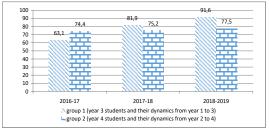
Table 1 Results of monitoring actions for the period from 2016 to 2019 (authors)

Year of	Academic year								
study	Abso	lute perform	ance	Quali	tative perfori	nance			
study	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19			
year 1	88,3 %	84,3 %	94,6 %	63,1 %	62,7 %	86,7 %			
year 2	92,4 %	98 %	95,9 %	74,4 %	81,9 %	72 %			
year 3	93 %	95,2 %	98,1 %	83,9 %	75,2 %	91,6 %			
year 4	94,7 %	95 %	95,2 %	80 %	88,7 %	77,5 %			

Source: authors

The data obtained demonstrate the change in figures of absolute and qualitative academic performance of the students for the period of study. The systemic control on the part of teachers allows promptly tracking the students' level of readiness and making adjustments. For more clarity, let the findings be shown as chart 1.

Figure 1 Dynamics of qualitative performance in a number of groups in 2016-19 (authors)



Source: authors

Figure 1 shows the students' qualitative performance dynamics – the increment of indices during study is registered. Monitoring

allows managing the process of mastering the material, stimulating the learners' preparation and tracking their results. It is rightly a tool for managing the educational process.

#### 5 Conclusion

The suggested and described testing and assessment materials allow assessing the dynamics of learners' individual progress, their level of mastering the learning material, and with the results obtained, improving the system of training students for practical activity, etc. They can be used at various stages of the educational process (the teaching one, the testing one), and they can act as assessment means both in continuous, interim, and independent monitoring.

The analysis of the results of monitoring shows that the use of various testing and assessment means for assessing learners' competencies, as well as the introduction of a system of monitoring actions into the educational process allow not only managing the process of learning, but also improving students' performance. Alongside this, the authors do not rule out the fact that development or selection of high-quality testing and assessment materials remains an important aspect, as before; the materials have to be focused on assessing competencies while considering their parameters. When organizing monitoring actions, alternation of the assessment means applied is of no less importance.

Bearing in mind the results outlined in the paper, a number of problems and promising lines demanding further consideration can be identified:

- testing and assessment materials, assessment means for measuring learners' knowledge and competencies have to be available in more variants;
- some ideas stated in the paper and associated with the practical use of testing and assessment materials, pool of assessment means have to be extended and developed further.

The materials of the paper can be of use for teachers of educational organizations. The research results can be used for information purposes, in planning and organizing the work in learners' knowledge assessment.

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**Primary Paper Section:** A

Secondary Paper Section: AD, AG, AL

## INVOLVED FATHERING AS A DEVELOPMENT FACTOR OF GENDER ATTITUDES AND BODY IMAGE DEVELOPMENT IN BOYS

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Abstract: In the paper, we present the results of studying the importance of involved fathering for the formation of gender attitudes and the body image in primary school boys. The research was conducted in Kemerovo Region in January 2020, covering 47 families having primary school aged boys. The experimental group was composed of 21 children coming from families of involved fathers, with 24 children of uninvolved fathers being the control group. Statistical analysis has shown there are significant differences between the groups according to the parameters of gender attitudes, father's masculinity appraisal, and attitudes to one's body and health.

Keywords: involved fathering, gender attitudes, body image, primary school age.

#### 1 Introduction

The relevance of studying formation of the body image is associated with the growing demand for research works dealing with psychological health of individuals. For considering the system of factors determining the body image, the authors suggest using the bioecological concept of U. Bronfenbrenner (Bronfenbrenner & Morris, 1998).

*Under biological factors* of the body image establishment, age, sex, sexual orientation, as well as body changes occurring during puberty should be listed.

Individual psychological factors also include individual psychological particularities of personality, e.g. the internality level.

The level of interaction of children and microsocial environment (family and peers) is as close to the person as possible. *Mesosystem* is formed by relationships of two or more Microsystems. *Exosystem* pertains to those aspects of social environment or social structures which influence the person. Unlike other levels, *macrosystem*, or the external level, is not related to any particular environment. Proceeding from the ideas of U. Bronfenbrenner (1998), it has to be concluded that interventions supporting and stimulating the course of development are the most efficient at the macrolevel. It follows from this point that the body image of children, adolescents, and adults can be changed, first of all, by adopting programs to work at the state level, at least, because in this case the effects will be maximum and they will get expressed in the long-term prospect (Cheng & Mallinckrodt, 2009).

#### 2 Literature Review

Summarizing the data accumulated by science as for the specific features of development in childhood and adolescence, the authors single out individual, social and psychological microand mesofactors, and social exo- and macrofactors determining the body image in children and teenagers.

Among the individual biological factors, the analysis covers the children's sex and age, body build type, the influence of the puberty onset time and particularities of its progress, features and defects of the appearance, and chronic somatic conditions. The body constitution is an important biological factors the effect of which is checked almost in all studies (Kostanski et al., 2004).

Concerning the impact of somatic and mental conditions on the body image, this problem is extensively studied within clinical psychology (Vasilenko & Blyum, 2017).

Most frequently, when establishment of the body image is in question, the influence of family and peers is mentioned at the micro- and mesofactors level (Goldberg et al., 2012). The authors believe that the feedback received from the parents and siblings, parental modeling, messages and attitudes, and the initial attachment are the key microfactors to determine the children's and adolescents' ideas about themselves and their bodies (Rust et al., 2008; Golombok et al., 2008).

By the adolescent age, peers become those significant others who start having more and more impact on establishment of the body image. Meanwhile, particularities of the appearance are the most frequent reason behind bullying among teenagers (Frisén et al., 2008).

Mesofactors are a combination of several microfactors and their interaction with each other. For example, if a child is under pressure concerning the body both on the part of the child's family members and peers, the probability of his or her developing dissatisfaction with the body and the resulting behavior is much higher (Shroff & Thompson, 2006).

As for social exo- and mesofactors, the authors refer to them, first of all, mass media and the Internet, social networks, images of body in toys and games, coloring books, social and cultural traditions associated with body, belonging to a particular group and learning its stereotypes (Herbozo et al., 2004; Klein & Shiffman, 2005).

Most studies of the formation of body image explore the particularities of forming and assessing the body image in girls and women (Dittmar et al., 2006; Children, Teens, Media and Body, 2015).

Boys have their own problems related to formation of the body image, as paragons demonstrate men having a considerable muscle mass and rather low weight (Dohnt & Tiggemann, 2006).

Research shows adolescents develop their gender identity in both spaces – the real and the virtual ones – demonstrating what is considered socially acceptable and hiding the aspects deemed unacceptable (Jewell & Brown, 2014; Tiggemann & Slater, 2013).

In the recent fifteen years, a counterbalance for the current negative trends has emerged – forming a positive body image studies of which have been launched worldwide (Holmqvist Gattario, 2013; Tylka & Wood-Barcalow, 2015).

The said characteristics are formed at all levels of factors but defense mechanisms and capacities for self-acceptance are associated with specific features of the children's family environment (Rodgers & Chabrol, 2009).

For boys, it is the father who is the major figure determining gender ideas, including the ideas about one's own body (Fagan & Lee, 2012).

With regard to this, the authors suppose the specific features of fathering practices (being involved or uninvolved into their children's life (Pleck & Hofferth, 2008) can determine both gender attitudes and the children's I image, the body image (Pleck, 2010a).

#### ${\bf 3}\ Research\ Methodological\ Framework}$

This research was aimed at studying the importance of involved fathering for forming the attitudes to their gender and body in primary school aged boys. It included 47 families having boys of the primary school age who were subdivided into two groups

according to the attribute of the father's being involved into the children's life. The first group was made up of the boys (21 people) coming from the involved father families. In the second group, there was 24 children of uninvolved fathers. The research was conducted on the basis of educational organizations of Kemerovo in January 2020.

The tasks of the research were the following: 1. to identify the differences in the attitudes to the role of man in the family in children of the involved and the uninvolved fathers; 2. to identify the differences in the attitudes to their gender and body in primary school aged boys of the families of involved and uninvolved fathers.

In the research, the authors used the theoretical, statistical, and empirical methods, including the following techniques: the technique of studying gender attitudes in children (Semistandardized interview of V. E. Kagan) (Bespanskaya-Pavlenko, 2013), questionnaire form with the modified technique of selfappraisal of boy's coincidence with gender model based on the Dembo-Rubinstein self-esteem studying technique (Bespanskaya-Pavlenko, 2013), self-portrait drawing, personal growth diagnosing of P. V. Stepanov, D. V. Grigoriev, I. V. Kuleshova (Stepanov et al., 2003). The authors also used the questionnaire details about the children's age, sex, and family. For finding out the father's involvement into the children's life, the background data (according to the parents' and children's answers) and J. Pleck's parental identity questionnaire (Caregiving and Breadwinning Reflected Appraisal Inventory (CBIRAI)) (Pleck, 2010b) were used.

#### 4 Results and Discussion

The comparison of level-related characteristics of the sampling including 47 primary school aged children with the statistical norms confirms this sampling has no special particularities as compared to other children of the same age. Therefore, the findings obtained from this sampling of children can be analyzed further.

The Fisher test check of the data of two groups at the significance level equal to 0,05 has shown that the variances of both group differ insignificantly. All the parameters studied by the authors follow the normal law of distribution according to the Kolmogorov-Smirnov test.

The comparison of these groups according to Student's t-test has shown that the groups differ in the following parameters: gender attitudes, father's masculinity appraisal, moral attitudes, body image, and mind image (Table 1).

Table 1 Student's t-test for the groups\*

Parameters	M for the CG **	M for the EG ***	t value	p	Standard deviation for the CG	St. dev. for the EG
Gender attitudes	1,87	1,97	0,02	0,05	0,21	0,08
Father's masculinity appraisal	3,89	4,69	2,53	0,02	1,39	0,42
Family attitudes	9,58	15,14	2,31	0,03	9,17	6,56
Body image	9,50	16,43	2,77	0,01	9,12	7,39
Mind image	9,42	15,67	2,62	0,01	8,94	6,72

Source: authors

\* only significant differences are presented

\*\* the control group - children of uninvolved fathers

\*\*\* the experimental group - children of involved fathers

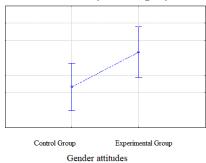
Thus, the children of two group differ according to the parameters describing their attitude to gender characteristics, including the body image.

Further on, the authors compared the groups according to the children's gender attitudes parameter using one-way analysis of variance which has shown that in the first group children (of the involved fathers), more clearcut gender attitudes are observed. Moreover, the children of the first group having clearer attitudes assess themselves according to gender qualities higher than the children of the second group. They also rate their fathers

according to the gender qualities higher, than the second group children do.

The comparison according to the children's gender attitudes parameter is shown in Figure 1.

Figure 1 Differences of gender attitudes in children of the control and experimental groups



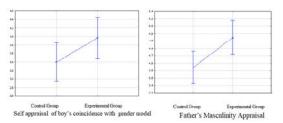
Source: authors

Therefore, more clearcut gender attitudes are observed in the children of the experimental group.

The comparison in the parameters of self-appraisal of boy's coincidence with gender model and father's masculinity appraisal supplements the data; it shows that the children of involved fathers assess themselves according to gender qualities higher than the second group children, while also having clearer attitudes

They rate their fathers according to gender qualities higher, too, than the children of the control group (Fig. 2).

Figure 2 Differences in self-appraisal of boy's coincidence with gender model and in father's masculinity appraisal in the control and experimental groups (the authors' data)

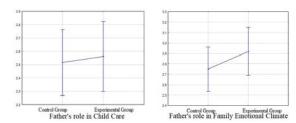


Source: authors

Curiously enough, the experimental group children (those of involved fathers) assess the father's role in upbringing of the children, in creating and maintaining the emotional climate in the family, the father's role in the family culture higher. The children of the first group (of uninvolved fathers) score lower in these parameters.

So, the children of the experimental group rate the father's role in upbringing of the children slightly higher, but as for creating and maintaining the emotional climate in the family, they rate the father's role in it much higher (Fig. 3).

Figure 3 Differences in appraisal of the father's role in child care and emotional climate of the family in children of the control and experimental groups

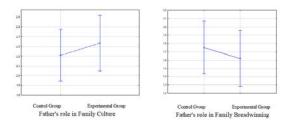


Source: authors

They also assess the father's role in the family culture higher than the control group children do.

That is, the children of the experimental group see versatility of the father's functions in the family and do not limit them by the material sphere only, which is notable when comparing appraisal of the father's role in this sphere by the children of the experimental and the control groups. The children of the experimental group have lower figures in this parameter (Fig. 4). This result is rather curious due to the fact that most frequently, families of the first group have the traditional distribution of roles, with the father being responsible for the material sphere more than the mother.

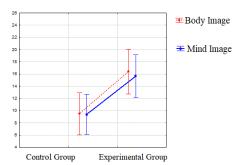
Figure 4 Differences in appraisal of the father's role in the family culture and breadwinning in the control and experimental groups



Source: authors

The children of involved fathers feature higher results in the body image scale (healthy lifestyle) and mind image scale (self-acceptance). Figure 5 clearly demonstrates the results of one-way analysis of variance for these parameters.

Figure 5 Differences in the body image and mind image parameters in the control and experimental groups



Source: authors

Next, correlation analysis was performed individually for each group. As a result, significant correlations of parameters in both groups have been found. However, the quantity and content of the correlations differ. So, in the control group (the children of uninvolved fathers), there is a negative association between self-appraisal of boy's coincidence with gender model and positive attitudes towards education, father's masculinity appraisal and the body image. Meanwhile, self-appraisal of boy's coincidence

with gender model and father's masculinity appraisal are correlated positively. So are family attitudes and the body image, family attitudes and the mind image; there is a positive association of the body image and the mind image, too (table 2.).

Table 2 Correlations in the control group

Co	Correlation coefficient *	
Self-appraisal of boy's coincidence with gender model	Positive attitudes towards education	-0,44
Father's masculinity appraisal	Body image	-0,41
Family attitudes	Body image	0,98
Family attitudes	Mind image	0,99
Body image	Mind image	0,97

Source: authors

For the involved fathers' children, correlations of the following parameters are observed: gender attitudes and self-appraisal of boy's coincidence with gender model (r=0,45), family attitudes and the body image (r=0,83), the body image and the mind image (r=0,88) (Table 3).

Table 3 Correlations in the experimental group (the authors'

Co	Correlation coefficient *	
Gender attitudes	Self-appraisal of boy's coincidence with gender model	0,45
Family attitudes	Body image	0,83
Body image	Mind image	0,88

Source: authors

Notably, the children of uninvolved fathers feature more correlations but they have different signs at the same time, which indicates disagreement of the parameters. In particular, self-appraisal of boy's coincidence with gender model and positive attitudes towards education are correlated negatively (then, it turns out that for children assessing themselves higher in gender, positive attitudes towards education are not characteristic. This is correlated to other studies of masculinity but it also points to difficulties establishing a positive masculine behavior model). The negative association between father's masculinity appraisal and the body image is indicative of the same, too (the higher a boy rates his father in gender, the lower his parameters characterizing the attention to one's body, health, and healthy lifestyle are). That is, the children of uninvolved fathers feature a negative model of masculine behavior.

There is a positive correlation between gender attitudes and the attitude to the world and the human (in the group of the uninvolved fathers' children, gender aspect turns out to be the most urgent one, which could be related to some inconsistencies within the gender model), self-appraisal of boy's coincidence with gender model and father's masculinity appraisal. This is not observed in the children of involved fathers.

As for correlations in the children of involved fathers, they are much fewer but all of them are positive. Gender attitudes and self-appraisal of boy's coincidence with gender model are related directly, which is indicative of the presence of criteria for father's masculinity appraisal.

Similar associations for the two groups are observed, too, differing in the correlation coefficient only. So, in both groups, the family attitudes are correlated to the body image and the mind image, which are interrelated, in their turn. That is, the value of family and acceptance of family values are associated with a positive attitude to one's body, health, and self-acceptance which are interrelated.

#### 5 Conclusion

Thus, in the first group (the children of involved fathers), all parameters describing the value-based attitude to one's gender, body, mental and somatic health at this age are higher, which points to the significant role of involved fathering in forming

<sup>\*</sup> only the significant correlations (at p=0,05) are presented

<sup>\*</sup> only the significant correlations (at p=0.05) are presented

positive value attitudes towards gender, the body, mental and somatic health in the primary school aged children. Further studies of involved fathering and possibilities of creating a favorable environment for forming the value-based attitude towards gender, the body, mental and somatic health in children of other ages will help supplement these findings. These studies will also help create an integral psychological basis for practical work of psychologists dealing with problems of the family and health, developing techniques of working on acceptance of one's corporeality, forming the positive body image, appreciation of the body, comprehending beauty in a broader context as compared to the rigid social and cultural norms, the value-based attitude to the body, and forming a defense filter.

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**Primary Paper Section:** A

Secondary Paper Section: AM, AN

## STATISTICAL EVALUATION OF SOCIAL AND ECONOMIC DIFFERENTIATION IN URBAN SETTLEMENTS AND AREAS OF RUSSIA'S EUROPEAN NORTH

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Abstract: The authors provide arguments for the fundamental and community importance of considering the phenomenon of social and economic differentiation. The particular relevance and practical demand of the statistical evaluation of social and economic differentiation of Russia's European North viewed through the lens of distinctions between urban settlements and areas have been substantiated. The authors provide grounds for the evaluation technique based on the use of the Lorenz curve and the Gini index. The specific features of differentiation between urban settlements and areas in the regions of Russia's European North have been identified: high differentiation in the economic indicators; lower differentiation in indicators characterizing the social life activity of the regions and the population level of life. Using the case of Murmansk region, the following trends have been found: the reduction of distinctions in the majority of social indicators and the growth of differentiation in the economic indicators.

Keywords: development disparity, social and economic differentiation, statistical estimates, Russia, European North.

#### 1 Introduction

The fundamental nature of the space differentiation problem is determined by the permanent clash between the efforts of administration of any country, region, or municipality aimed at curtailing the social and economic disproportion of the territory under management and the objective laws of capitalist formation reproducing and intensifying differentiation in the social and economic space of any territorial object (Blaug, 1997; Piketty & Saez, 2003; Skufina, 2013).

The relevance of developing the scientific topic dedicated to diagnostics of social and economic development differentiation is determined by the necessity of summing up and elaborating the scientific ideas to solve the urgent scientific and practical problems of managing various level territories. The importance of this research is enhanced particularly by the choice of the research object - urban settlements and areas of the European North of Russia. Natural resources and industrial capacities located within Russia's European North matter much for the economy of the country (Leksin & Porfiryev, 2015). Meanwhile, it is these areas that are characterized by systemic problems: migration outflow against the background of escalating migration moods of the population, an insufficient level of the social sphere as compared to the remainder of the country, poor infrastructure development, etc. (Baranov et al., 2020; Samarina et al., 2019; Suopajärvi et al., 2017). This is why for solving the problems of ensuring the balanced development, the specific nature of differentiation of the social and economic space should be evaluated quantitatively as applied to the selected research object - the European North of Russia.

The scientific novelty of such research is determined by finding out new facts, trends, and proportions of the parameters of the particular research object (urban settlements and areas of the European North, for which no similar studies have been conducted so far). The practical importance is determined by diagnosing the situation, including independent monitoring studies of comparative dynamics for the regions, urban settlements, and areas of Russia's European North.

#### 2 Literature Review

Traditionally, the studies of social and economic differentiation in various territorial objects make up one of the most urgent and important focus areas of basic science. As numerous studies, including the authors' ones, show, there is a controversy between the significance of efforts aimed at solving the problem of differentiation of social and economic development of countries and regions and their low effectiveness (Baranov & Skufina, 2005; Skufina, 2013). With regard to this, as some studies point out quite fairly, social and economic differentiation (including the social inequality problem) becomes the subject of not only scientific but also a broad community debate in many countries (Piketty & Saez, 2003; Piketty & Zucman, 2014; Suopajärvi et al., 2017). Moreover, the public discussion of the problem of differentiation in all its manifestation ways has become quite heated in the recent years. This greater attention on the part of the public is a new and special phenomenon that allows supposing intensification of the political context in the problem of social and economic differentiation, its spatial aspect included.

The authors believe that such keenness of the public perception is generated by the problem of uneven social and economic development of territories, equally as the social inequality one, being insolvable within the capitalist model of the world development. Numerous attempts of the summing up analysis of main theoretical concepts indicate that there are currently no models that allow substantiating the conditions for reducing social and economic differentiation as an objective, selfregulating process from the standpoint of economic theory (Piketty & Saez, 2003). It has been found that the essence of economic models of various countries and global conditions of cross-country division of labor inevitably produce social and economic differentiation of the population, areas, states, and regions of the world (Atkinson et al., 2011; Skufina, 2013). Hence social and economic differentiation of the space is a natural phenomenon. Within these lines, the task of administration is to prevent such a level of distinctions that can provoke the development of undesirable, acute social processes.

This context expands the potential possibilities of applying the scientific results of evaluation of social and economic differentiation in the practice of managing territorial objects of the European North of Russia. This is determined by the following facts.

Firstly, the territorial objects are important for the current objectives of management. The selection of Russia's European North is completely in line with the actualization criteria owing to the high importance of this zone for fulfilling the national development interests of Russia. This importance is confirmed from the standpoint of management, too: on the one hand, by decreasing protectionism in relation to the Northern areas of Russia in general, but at the same time, by the rise of the economic activity in the part of exploiting the natural resources of this area (Baranov et al., 2020; Korchak et al., 2019; Skufina & Baranov, 2017). Moreover, currently, a new specialized state policy is being formed for the Russian Arctic. It was first outlined individually in the "Fundamentals of the state policy of the Russian Federation in the Arctic for the period of up to 2020 and further outlook" on 18/09/2008. Later it was made more precise in a large number of regulations and legal documents (Leksin & Porfiryev, 2015).

Further formation of new legislation for the Russian Arctic implies knowing the problems that are characteristic exactly for the Northern areas in detail. It is into differentiation of the social and economic space that these problems translate, which predetermines the necessity of specialized research. It should be noted that no full-scale studies of social and economic differentiation of the regions viewed through urban settlements and areas of Russia's European North have been conducted yet.

Secondly, this is determined by the importance of the research subject which includes evaluation of differentiation within the region – between urban settlements and areas.

It should be noted that in the recent years extremely much attention has been paid to the problem of interregional differentiation of Russia in the level of social and economic development. However, at the same time, distinctions within the regions are considered extremely rarely. Meanwhile, in most cases, these distinctions are even sharper than at the level of interregional juxtapositions (Skufina & Baranov, 2017). Obviously, for developing a sound model of balanced development of the country, region, municipal formation, these distinctions have to be known and taken into account.

Thirdly, crisis processes in Russia's economy are coupled with particular difficulty of ensuring the balanced development of the European North due to high costs of functioning of the economy and the social sphere, mono-dependence of its urban settlements and areas, weak actual and potential diversification of the economy, and so on (Korchak et al., 2019; Baranov & Skufina, 2005; Samarina et al., 2019). With regard to this, the worded strategic prospects of social and economic development of the Russian North and its Arctic constituent were formed in the conditions of a steady growth of the economy. Crisis conditions marking the aggravation of systemic problems these remote territories have and at the same time the enhanced geopolitical importance of the Russian North require adjusting the promising focus areas that can ensure the balanced development of not only the economy, but also the social sphere of its regions, urban settlements, and areas. Hence valid diagnostics of interregional differentiation is a paramount task.

The essence of diagnosing exactly the space differentiation is its direct association with management. This context implies the objective of diagnosing social and economic differentiation of spatial objects consists not in an attempt to describe the distinctions between the territorial objects in the fullest detail possible, but in the correct evaluation of the situation in the form of setting a particular diagnosis (Baranov & Skufina, 2005). Thus, the technology of evaluating differentiation of the social and economic space has to enable the reasonable use of the required simplifications within the limits corresponding to the set objectives and to the measure of danger of errors in regulating the problem of balanced development of the space in the Arctic Zone of the Russian Federation. However, the question of objective quantitative evaluation of social and economic development disparity remains debatable, which hinders achieving the consensus both in the economic theory, in the practice of management, and in the economic policy.

Below, the results of the authors' statistical estimates are given illustrating the evaluation of development disparity. The authors believe this will allow discussing the specific features of statistical evaluation of differentiation in a profound way and clarifying the nature of its manifestation for the regions, urban settlements, and areas of the European North of Russia.

#### 3 Materials and Methods

The objective of the research is statistical evaluation of social and economic intraregional differentiation of Russia's European North viewed through the lens of distinctions between urban settlements and areas.

The research tasks are as follows: 1) substantiating the methodological particularities of statistical evaluation of the social and economic space; 2) presenting the results of evaluation of intraregional differentiation of development on urban settlements and areas of the European North of Russia; 3) finding out the particularities of manifestation of differentiation in the urban settlements and areas considered according to the regions of Russia's European North.

The research object is the urban settlements and areas of the regions of Russia traditionally making up the European North: the Republic of Karelia, the Republic of Komi, Arkhangelsk region, Vologda region, and Murmansk region. Let it be noted that the European North is also called the Northern economic area, one of Russia's 11 economic areas.

Diagnostics of social and economic differentiation of the space is an integrated analysis of comparative characteristics of territorial objects (in this case – regions, urban settlements, and areas of Russia's European North). Alongside the accumulation of scientific knowledge, the practical function of this diagnostics is support of the practice of managing the development of territories, including transformations of the social and economic space measured by proportions of a series of parameters characterizing differentiation (Rodrik, 2010; Baranov et al., 2018; Felipe et al., 2011).

The following principles of selecting the basic indicators used in the evaluation have been substantiated: 1) the principle of comprehensiveness, i.e. the indicators have to describe the main aspects of social and economic development of a territorial object; 2) accessibility, i.e. the initial indicators have to be accessible for other researchers to subsequently repeat the calculations for elaborating the study of social and economic differentiation further, finding out the situation dynamics and making it more precise in the future; 3) consistency, i.e. each of the indicators has to correspond to the principle "the more the better" in terms of social and economic development, or to the principle "the more the worse" (in case an indicator is not up to this principle, it is converted into the opposite form).

The authors have suggested the following list of indices or indicators that characterize the economic activity, social life activity, and level of life of the population of the European North: 1) investments into fixed assets of large and medium organizations per capita; 2) the average retail turnover per capita; 3) the volume of commercial services rendered to the population per capita; 4) the average monthly nominal gross payroll; 5) the number of registered crime per 1000 people of the population; 6) the officially registered unemployed as of the year end; 7) the average total area of residential premises per one citizen as of the year end; 8) the number of doctors per 1000 people of the population as of the year end. Let it be noted that in forming the list, the specific features of the North were taken into account; for example, the system of healthcare is particularly important for Northern areas.

This dictates the necessity of using relatively simple and reliable evaluation methods that allow obtaining unambiguously interpreted and repeatable results. In the series of studies of social and economic development differentiation in various level territories, the author used a set of various approaches and methods - some variants of complex estimates, index methods with the use of the Mahalanobis distance (the measure of distance between vectors of random values generalizing the notion of the Euclidian distance), and the method of principal components (Baranov & Skufina T, 2005; Skufina & Baranov, 2017). Each of these methods has certain limitations and positive sides of use. In this paper, the authors describe below the results of calculations relying on the methodological approach based on the use of fundamental developments in the domain of economic and social inequality. They use methods similar to those applied in studying e.g. the inequality of incomes (the Lorenz curve, the

Let positive aspects of the techniques using this approach be noted: 1) the toolkit has been repeatedly tested out and it has proven itself as a universal means for characterizing the disparity of distribution of the values being analyzed; 2) it allows identifying the distinctions in the indicators not only between all regions of the country, but also between the groups of subjects of the Russian Federation (e.g., the group of depressive regions, the Northern regions group, and so on) as well as intra-group differences; 3) it provides a quantitative characteristic of the measure of distinctions of the regions according to an indicator (or index); 4) it is convenient for studying the process dynamics (the Gini index is dimensionless, therefore, no deflation is required for it).

The main disadvantage of using the analog of the Gini coefficient for characterizing the development disparity is some averaging of the evaluation. That is, in the obtained results, the indicator values are not singled out for abnormally lagging

behind or the most flourishing urban settlements and areas. However, this comprises the strong side of this approach, too: it allows evaluating the differentiation of an object on the whole, when the extreme values affect the result but do not determine it to the full extent (just like, for example, in estimates of differentiation by the range between two extreme values of the objects from the group under study).

For each of the basic indicators of social and economic development of urban settlements and areas (grouped according to regions), it is suggested to plot the Lorenz curve (DC) and the analog of the Gini index (let it be termed the RDI differentiation index). Formally, the above procedure takes the form of:

$$DC_{k}(0) = 0,$$
  
 $DC_{k}(i) = DC_{k}(r/N) = \sum_{r} f_{k}(r)/\Sigma_{k},$  (1)

where k is the indicator number; N is the quantity of regional objects (urban settlements and areas); r=1,...,N is the object number; is the value of the k-th indicator for the r-th object; and  $\sum_k$  is the sum of values of the k-th indicator for the r-th object.

$$RDI_k = 2S, (2)$$

where k is the indicator number; S is the area between the cumulative curve and the absolute equality line; let it be reminded that multiplier 2 appears when S is divided by the area of the triangle under the absolute equality line.

#### 4 Results and Discussion

Table 1 gives the results of calculation of differentiation index – RDI (the analog of the Gini index) calculated according to the 2018 data for urban settlements and areas for each of the regions of the European North. As of the point of writing this paper, the initial statistical data of most indicators for 2019 have not been accessible yet. Let it be noted that RDI (the analog of the Gini index) is a stable indicator allowing for no essential fluctuations, which was shown by the authors' earlier studies of social and economic differentiation of regions (Baranov & Skufina, 2005) and urban settlements (Skufina & Baranov, 2017).

Table 1 Differentiation index (RDI) values for urban settlements and areas, grouped according to regions of the European North of Russia

OI Kussia							
	Regions of the European North of Russia						
Evaluation indicators	The Republic of Karelia	The Republic of Komi	Arkhangelsk region	Vologda region	Murmansk region		
investments into fixed assets of large and medium organizations per capita	0,63	0,42	0,60	0,38	0,51		
the average retail turnover per capita	0,39	0,59	0,54	0,40	0,45		
the volume of commercial services rendered to the population per capita	0, 45	0,50	0,39	0,41	0,43		
the average monthly nominal gross payroll	0,27	0,24	0,17	0,19	0,21		
the number of registered crime per 1000 people of the population	0,31	0,33	0,24	0,30	0,21		
the officially registered unemployed as of the year end	0,30	0,29	0,27	0,20	0,22		
the average total area of residential premises per one citizen as of the year end	0,27	0,30	0,29	0,23	0,21		
the number of doctors per 1000 people of the population as of the year end	0,27	0,31	0,26	0,29	0,27		

Source: authors' calculations

Let it be reminded that if the Gini index is equal to 0 (0%), it speaks about the complete equality, while it shows the absolute inequality when it is 1 (100%). That is, the closer to 1 the calculated for each indicator values obtained by the authors are, the greater differentiation characteristic for a particular indicator is

The analysis of the differentiation index values according to the indicators (Table 1) has allowed identifying:

- the fact of high differentiation in the indicators characterizing the economic activity of urban districts and municipal areas (the indicators "investments into fixed assets of large and medium organizations per capita", "the average retail turnover per capita", and "the volume of commercial services rendered to the population per capita");
- 2. the fact of lower differentiation in the indicators characterizing the social life activity of regions and the population level of life (the indicators "the average monthly nominal gross payroll", "the number of registered crime per 1000 people of the population", "the officially registered unemployed as of the year end", "the average total area of residential premises per one citizen as of the year end", and "the number of doctors per 1000 people of the population as of the year end").

The paper views five regions of the European North, and the RDI is relatively stable for all the regions in question, so the said two facts can be considered as a regularity of the differentiation phenomenon observed in the social and economic space of the European North of Russia.

Discussing the dynamics of development of social and economic differentiation between urban settlements and areas of regions is of certain interest. Let the dynamics be considered using the case of Murmansk region – one having a favorable geographical situation, sharing borders with two developed states (Finland and Norway), rich in natural resources, having ice-free ports, a developed and diversified economy, with a large scientific center of the Russian Academy of Sciences located in its territory.

The analysis of the dynamics of Murmansk region differentiation index based on the above indicators (see Table 2) has allowed stating the following facts.

- 1. The indicators characterizing the region's social life activity and the population level of life in Murmansk region, mostly demonstrate minor differentiation and feature a steady decreasing trend. So, a lower differentiation trend is characteristic of indicators "the average monthly nominal gross payroll" and "the officially registered unemployed as of the year end". "The average total area of residential premises per one citizen as of the year end" and "the number of registered crime per 1000 people of the population" indicators maintain low differentiation steadily. Among social indicators, it is only the indicator "the number of doctors per 1000 people of the population as of the year end" that demonstrates uncertain trends but in general it does not feature high differentiation.
- The indicators characterizing the economic activity of Murmansk region show maximum differentiation and an uncertain growth trend (indicators "investments into fixed assets of large and medium organizations per capita", "the average retail turnover per capita", and "the volume of commercial services rendered to the population per capita").

Table 2 Differentiation index (RDI) for urban settlements and areas of Murmansk region broken down according to the indicators for the period of 2001-2018

Indicators	2001	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Investments into fixed assets of large and medium organizations per capita	0,63	0,50	0,63	0,71	0,68	0,74	0,75	0,68	0,69	0,60	0,54	0,51

The average retail turnover per capita	0,30	0,29	0,60	0,56	0,56	0,54	0,47	0,63	0,58	0,50	0,60	0,45
The volume of commercial services rendered to the population per capita	0,37	0,35	0,35	0,38	0,38	0,36	0,47	0,42	0,40	0,44	0,39	0,43
The average monthly nominal gross payroll	0,32	0,28	0,28	0,29	0,28	0,28	0,26	0,26	0,27	0,26	0,26	0,21
The number of registered crime per 1000 people of the population	0,27	0,33	0,29	0,30	0,28	0,27	0,26	0,26	0,27	0,26	0,26	0,21
The officially registered unemployed as of the year end	0,47	0,46	0,47	0,49	0,46	0,47	0,45	0,31	0,44	0,29	0,30	0,22
The number of doctors per 1000 people of the population as of the year end	0,34	0,35	0,35	0,36	0,35	0,42	0,46	0,37	0,38	0,33	0,36	0,27
The average total area of residential premises per one citizen as of the year end	0,23	0,21	0,22	0,21	0,21	0,21	0,20	0,21	0,22	0,21	0,21	0,21

Source: authors' calculations

Therefore, there are grounds to believe two trends are observed in Murmansk region - a growth of differentiation in the economic indicators and decrease of differentiation in the majority of social indicators.

#### 5 Conclusion

Summing up, let it be noted once again that the phenomenon of social and economic differentiation of regions, urban settlements, and areas is a quite natural one. In this reality, the task of administration is to prevent distinctions according to such constituents of community development which may lead to social tension and conflicts.

From this standpoint, the outlined particularities of social and economic differentiation of regions of the European North viewed through the lens of analyzing the indicators of urban settlements and areas should be considered as mostly positive ones. So, rather low differentiation is observed in the indicators characterizing the social life activity and the population level of life. This gives evidence about achieving the community-focused objectives of regional management aimed at leveling out social disproportions between urban settlements and areas.

High differentiation in indicators describing the economic activity is a feature characteristic of territorial objects in the conditions of capitalism. So, differentiation in this line cannot be influenced drastically. However, for managing regional development, there is an option of adjusting the situation by looking for new investment projects for their implementation in the towns and areas that are less developed economically.

Studying the behavior of the phenomenon of social and economic differentiation between urban settlements and areas of Murmansk region has allowed identifying two trends – a growth of differentiation in the economic indicators and decrease of differentiation in most social indicators. This confirms the effectiveness of regional development management, too.

Alongside this, the behavior of the "number of doctors per 1000 people of the population" indicator causes concern as it does not demonstrate any clear reduction trend. The areas of regions of the European North are quite vast; they are characterized by remoteness, not sufficiently good transport accessibility of a number of residential settlements, low development of the regional transport service, and shrinkage of the population's income during the present-day crisis (accordingly, cuts to spending on diseases prevention, quality nutrition, etc., which determines higher morbidity). All this gives evidence about risks of lower accessibility of medical aid for the population and a potential hazard of higher morbidity. Thus, further reduction of the number of medical organizations should not be allowed,

especially of those rendering primary medical and sanitary aid in the regions of Russia's European North.

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**Primary Paper Section:** A

Secondary Paper Section: AH, AO

## MUSICAL PRIORITIES OF GENERATION NEXT IN THE "SENSATE CULTURE" ERA: A CASE OF SOCIOLOGICAL ANALYSIS

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Abstract: The relevance of the research is associated with cultural transformations playing out in the system of values of the younger generation. The emphasis of the paper is on the young people's esthetic tastes. The authors consider Russian traditions of music-making for discussing their existence at the present moment. The researchers make an attempt to understand what and who determine the young people's tastes and values in music. For this purpose, they use the sociological survey method, conducting the questionnaire survey "The role of music in the young people's life". In the paper, recommendations are given for overcoming the crisis observed in the sphere of music tastes of the young people. The materials of the paper are of practical value for everyone interested in this range of problems.

Keywords: society, culture, modern times, music-making, young people, values, preferences, classical music.

#### 1 Introduction

The relevance of this research is associated with social and cultural transformations currently engulfing the Russian public. It is the young people's milieu setting the development vectors for the society that has become a special indicator of the said changes.

The contemporary young people demonstrate mistrust for the values of representatives of older age cohorts, which leads to the priority of the corporeal over the spiritual, the "sensate" over the "ideational" (in P. Sorokin's terminology). Music preferences of the young people are a particular expression of this attitude.

The role of music in human life, especially in young people's life, has been described in scores of research work volumes. When reflecting on music in the axiological aspect, the authors emphasize the role of musical creativity in formation of the human values system. Let the words of Stephen Fry, a connoisseur of classical music, as referred to by G. M. Tanieva and V. P. Kozyrkov (2015), be quoted: "For me, classical music... is not stories about kings ... who took under their wing talented, smart, and gifted young composers... For me, this is the question of personal attitude to a certain number of some of the most amazing people to have ever lived on this planet" (p. 32).

Let the statement of V. A. Gavrilin, a prominent Russian composer of the 20th century, be cited: "Art will live as long as children with an insuperable urge for making music, or painting, or sculpting are born. This urge is a child of nature, and it is as undying, as the nature's thirst for life is" (Bonfeld, 2005, p. 15).

Meanwhile, as it has been noted above, the present day makes one think about this urge and its future destiny. Nowadays, classical music is opted for by few people, and it is more frequently listened to in adaptations. It happens so because of the "uneducated ear", the mass audience being oriented to the "music industry". So, one of Theodor W. Adorno's (2008) observations comes to mind as he supposed that a good audience was increasingly rare (in conditions of mass production of music and embourgeoisement of the society) (p. 14).

It is slackening of educational canons up to which the Russian society used to exist just the recent past that has largely contributed to the currently formed system of the young people's priorities in music: at the end of the 20th century, alongside

comprehensive schools, students went to schools of music which educated and cultivated them.

The distant pages of the Russian history also bear witness to the tradition of music being deep rooted in the country. M. I. Glinka grew up in a manor where they were fond of music and knew it well. A. S. Dargomyzhsky's life choice was influenced by his close ones' fascination with art. M. P. Musorgsky's father adored music, and the future composer's first classes of music were led by his mother. A. P. Borodin shares a similar destiny - he combined the skill of composer with working as a chemist and a doctor. Joining the navy after his family lines, N. A. Rimsky-Korsakov dedicated his life to music. The example of P. I. Tchaikovsky is also illustrative: he graduated from the Imperial School of Jurisprudence and went on to enter "the nascent conservatoire". In the work of E. P. Fomenkova (2014), a quote from his letter to his sister is given: "Don't get the idea that I am imagining that I will become a great artist — I simply want to do just that to which I am drawn by my vocation... (p. 17).

These days, under "barbarization of culture" (V. Zaderatskiy), upbringing of an educated audience is an important task. With regard to this, it is essential to understand what music is for the contemporary young people, to what and how the rising generation is listening today.

#### 2 Literature Review

It is T. Adorno's fundamental research "Sociology of music" (2008) that has become a pillar for this paper to rely on. In his work, relations between music as an art and the audience are considered, and the existing types of the audience are analyzed. Penned in the middle of the 20th century, Adorno's text (2008) has not lost its relevance by the present days, too. First of all, this is so because the contemporary society contains the types of audience described in it, and secondly, because Adorno (2008) views music as an art reflecting the spirit of the time.

In the authors' work, they also made use of some studies in psychology, e.g. the paper by A. D. Andreeva "Psychological image of childhood in parents of the contemporary school students" (2019). Her research traces the links between parents' social and cultural stereotypes and their impact on the destiny of the rising generation, including that in relation to the system of values having formed. She addresses the category "image of childhood" forming in the ideas of parents which the authors believe is applicable to their range of problems as well. A. D. Andreeva (2019) notes that according to some parents "...childhood must be exceptionally "nutritious" and useful: intensive development and high-quality education will give the children a good start..."; however, she warns against cases of parental perfectionism (p. 11).

For the authors, the study of reasons of the young generation's passivity undertaken by M. M. Basimov (2019) in his paper "Psychological reasons of the young people's non-participation in the political life" has proved to be resourceful. The researcher states: "At educational institutions, the process of socialization of young students is regulated by a number of state, industry-specific, regional, municipal, and school programs of upbringing and socialization of the learners. However, these programs... are not up to much in forming the young people's competence in politics" (p. 9). It appears that this is the reason why similar passivity marks the young people's comprehending cultural spaces which are new for them.

Many studies highlight the fact that it is the young people who are an indicator revealing the process of transformation of values, as a result of which its "cultural navigation" is rendered more complicated. So, Yu. A. Zubok and V. I. Chuprov (2018) write about the contemporary "Social and cultural space... being characterized by controversial trends...", implying the young

people's alternating breakaway and comeback to the traditional values (p. 137).

In the paper of P. E. Okuneva and A. N. Medvedev (2018), they study the relevance of developing moral and esthetic values in the young people through teaching vocals. The role of music in formation of the system of values in the contemporary young people is also discussed by M. V. Kalinnikova and M. A. Karelin (2015).

The mechanisms of relaying the intergenerational social and cultural experience within the family are considered in the paper by O. A. Nemova, A. A. Chervova, O. A. Sizova, T. Y. Medvedeva, A. V. Khizhnaya, and D. Y. Vagin (2019).

#### 3 Research Methodological Framework

The objective of the research consisted in identifying and keeping the musical traditions that used to exist in the Russian public, in Russian families.

The tasks of the research are:

- To outline the leading genre preferences of the young people;
- To identify the role of music education in questions of the formation of music preferences;
- To find out the main agents of socialization producing an influence on formation of the taste for music and musical choices:
- 4. To explore the presence of family musical traditions as an element of daily life.

The authors of this research relied on P. A. Sorokin's concept stated in his work "Social and cultural dynamics" (2006), ranking the contemporary culture with material values prevailing in it with the "sensate type" according to the qualitative indicators.

As the study of such values features an interdisciplinary nature, an integrated approach is used in the research. Alongside the general scientific research methods (analysis and synthesis, induction and deduction, and others), the quantitative methods of sociology are adopted as a basis. In particular, the authors conducted a questionnaire survey of schoolchildren and students of higher educational and secondary vocational education institutions (SVE) of Nizhny Novgorod. In 2019, on the basis of the research laboratory for problems of the modern family of K. Minin NSPU (led by O. A. Nemova), the sociological survey "The role of music in the young people's life" was organized and held. The study was conducted by the questionnaire survey method (N-300). The sampling was representative in gender, age, and education. The research covered the students of K. Minin NSPU (93%) and the students of M. A. Balakirev music college of Nizhny Novgorod (7%), among them 39% being male and 61% - female, respectively. For the research, selection of the respondents according to their professional attitude to music was of critical significance. Thus, the "professionals" group was represented by the students of M. A. Balakirev music college of Nizhny Novgorod (three faculties: the "vocal art" one, the "choral conducting" one, and the "solo, choral, and folk singing"). The "non-professional" group was represented by the students of K. Minin NSPU (the speciality 38.03.01 "Economics", the "Economy of enterprises and organizations" training profile). The survey toolkit was a questionnaire form consisting of 28 questions, both open- and closed-type ones. The questionnaire survey was aimed at finding out in practice what the young people's attitude to music education is, if it is a priority, what the young generation's attitude to classical music is, what music they prefer and listen

#### 4 Results and Discussion

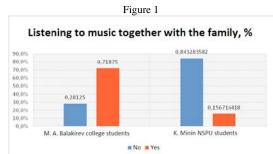
During the research, it has been found that the vast majority of the survey participants have no music education (87,3%), and 57% are not related to music in any way, which causes a new question: what music is listened to nowadays? More than a half of the questioned (65,3%) prefer listening to variety music, and only 17% of them — classical, with 9,3% of the respondents answering that it is extremely rarely that music can be heard at their homes. Among the respondents, there were ones who listened to jazz -2.7%, and a few of rock music listeners -6.3%

So, the young people listen to light and entertainment music, preferring works created for amusement. Being easy for perception, they do the function of "wallpaper music", which is their radical distinction from the classical works producing a favorable effect on the human soul, body, and spirit.

National musical traditions are deep rooted in history. Daily life and festive culture of the Russian people is unthinkable without music and singing. Songs accompanied both the working life and holidays of all strata of the Russian society. Meanwhile, it has been found during the research that the tradition of family music-making together, singing songs in the family circle, is getting lost gradually. The question "Do your family sing socalled "drinking songs" on holidays?" was answered in the positive by just 24,7% of the respondents, with 75,3% giving a negative answer, accordingly. Listening to music with their family together is practiced by 21,7% of the respondents only, while it is not by 78,3%, which also gives evidence about the loss of the Russian people's best musical traditions. The authors consider this fact to be a negative social phenomenon, as music is not only a keeper of the Russian mental spirit and character, but at the same time it is a mechanism of intergenerational cohesion, transmitter of intergenerational values.

The age of scientific and technical advance has seen karaoke singing win a broad popularity. One of the research hypotheses was the statement that the young people continued the tradition of family music-making together by means of using new technical capacities, i.e. karaoke. However, there has been no confirmation for this hypothesis. So few as 21,7% of the respondents sing along karaoke at home, and 78,3%, respectively, do not do this, demonstrating an indifferent attitude to music-making as such, regardless of the availability of technical innovations.

The research has also revealed that the respondents of M. A. Balakirev college, whose professional activity is directly associated with music, are more disposed to maintaining the best musical traditions of the Russian people, which was quite expected, basically. So, the question "Do you listen to music in the family circle?" was answered in the positive by 71,3% of the students of M. A. Balakirev college, while it was just 15,7% of the students of K. Minin NSPU who gave a positive answer (see Fig. 1).



Source: the authors

The question "How are music preferences of the young people formed and who influences them?" was answered as "the parents" by 38% of the respondents. The conclusion is that the contemporary parents underestimate the role of classical music and its benefit for the children. "Friends" do not have much influence -28,7%, and the mass media influence the young people almost in the same proportion -25,3%. The "relatives" indicated by 4,3% of the respondents do not affect their preferences much, similarly to the "classmates" -3,7%.

The questionnaire form included the item "Do your family have any traditions of going to (theatres, concerts, etc.) together?". The findings are as follows: classical music concerts are visited by 17% and not visited by 83%, pop-music concerts and music shows are preferred by 21,3% while 78,7% do not visit them.

Visiting performances of the opera and ballet theater was the option for 18,7%, with 81,3% of the respondents answering "no". Performances of the operetta theater and musicals were selected by 7%, with 93% saying they were indifferent to them.

There was an item in the questionnaire form to clarify the present-day forms of existence of the home music-making tradition: 21% the respondents said they sang to the guitar at home and 7,7% play various instruments at home, 3,3% answered they sang to accompaniment at home, and 0,7 % play musical instruments as an ensemble. Thus, the main objective of home music-making – creating a comfortable psychological climate in the family – had to be adjusted.

One of the items of the questionnaire form was "What is your attitude to classical music?". The research has shown that many listen to classical music from time to time (42,3%). 42,7% said they had "a couple of favorite pieces" among the classical works. However, the survey has shown there are those who do not listen to classical music; they opted for the answer "I do not like it. I do not understand what one finds in it, it is but boring!". 4,7% of the respondents answered "This is not fashionable, therefore, it is not worth attention", but 1,3% said "This is my favorite music!".

The results of the questionnaire survey have allowed finding out the genre music preferences of the contemporary young people (See Table 1).

Table 1 Music genres: breakdown according to their appeal to the respondents

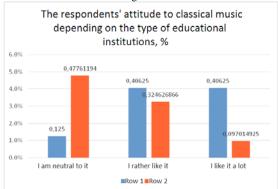
Answer options	I absolutely dislike	I rather dislike	I am neutral to	I rather like	I like a lot
Variety music	7,3	14,7	43	23	12
Russian chanson	20,3	28,0	36,7	11,7	3,3
Classical music	7,0	2,7	44,0	33,3	13,0
Folk music, ethnic music	12,7	24,0	35,0	24,7	3,7
Dance music	2,3	5,3	22,3	46,0	24,0
Pop-music	2,3	8,3	18,0	45,3	26,0
Hip hop, rap	11,0	7,0	23,3	34,7	24,0
Rock, romantic ballads	10,0	18,3	28,0	24,0	19,7
Metal, heavy rock	33,3	18,7	23,0	15,7	9,3
Jazz and blues	9,3	6,3	43,3	28,7	12,3
RnB	13,3	11,7	49,7	20,0	5,3
Author's songs	16,0	14,7	54,3	10,3	4,7
Electronic music	15,7	19,0	35,7	20,7	9,0
Reggae	15,3	17,7	47,7	15,3	4,0
SKA	19,7	17,7	49,0	10,3	3,0

Source: the authors

Summing up the "I rather like" and "I like a lot" answers, what is obtained is that the absolute majority of the respondents prefer pop-music (71,3%) and dance music (70,0%), hip hop, rap, rock (58,7%), romantic ballads (43,7%). Listening to classical music is preferred by 46,3% of the questioned ones. The least popularity with the young people has been won by such music genres as SKA (13,3%), author's songs and Russian chanson (15,0% each), electronic music (19,0%), etc.

Meanwhile, if the totals of the "I rather like" and "I like a lot" answers are compared for the "professionals", i.e. the students of M. A. Balakirev college, and "non-professionals", i.e. the students of K. Minin NSPU, it can be seen that it is certainly the "professionals" who are more positive to the "classical" music (81,3% versus 42,2%) (See Fig. 2).

Figure 2



Source: the authors

In the item "Please select the most preferable for you leisure activities from the list below" (the respondents were asked to choose not more than five answer options), the "professionals" marked visiting concerts of classical music as one of the preferable leisure activities more frequently than the "non-professionals" did (56,3% versus 6,3%). The students of M. A. Balakirev college also have evenings of family music-making much more frequently, as compared to the students of Minin university. In particular, for the item "Is there a tradition of family music-making in your family?" (there were four scale answer options ranging from "Yes, very often" through "Rather often" and "Sometimes" to "Never" for the respondents to choose from), after summing two first variants of the answers, the following findings have been obtained: a positive answer was given by 46,9% of the students of M. A. Balakirev college and by so few as 6,7% of the students of Minin university.

#### 5 Conclusion

The questionnaire survey has confirmed the version about classical music being increasingly rare to hear in the contemporary world. It is not sought after by the young people, either. With the spirit of commerce and modernization inherent in it, the today's "sensate culture" era distances classical music from the people, and the people from the classical music. This may be the reason why spiritual values get lost. The society becomes indifferent and loses the capacity for compassion. The authors would like to remind that children perceive music in a different way than adults do. For music to have a favorable influence on a child, it has to be consonant with the child's emotional condition. At preschool age, children get many musical impressions not so much from music itself, rather than from the older family members' emotional response to music (following the emotional example). Probably, it is not only for children and adolescents, but also for adults that music upbringing has to be upgraded and stepped up in the present-day society. In particular, this involves bringing back to the daily life the evening schools of music, enlightenment subscriptions, music studios and circles, the programs of which will be targeted specifically at the adult population. Then, music preferences of generation next might also become more reminiscent of the love the Russian public used to have for classical music in the former times.

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## SCIENTIFIC AND METHODOLOGICAL CONDITIONS FOR DEVELOPING INFORMATION COMPETENCY IN HIGHER EDUCATIONAL INSTITUTION STUDENTS

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Abstract: The paper highlights the relevance of finding out and fulfilling the scientific and methodological conditions for developing the information competency in higher educational institution students in the era of digital transformation. The authors describe approaches to the understanding of the "digital transformation" phenomenon which is studied at the level of state education policy. Attention is paid to developing the information competency of the future teachers, their individual and professional establishment in the era of digital transformation. The materials of the paper are of practical interest for master-degree students, postgraduate students, teachers of higher educational institutions and teachers of other educational institutions doing research in this domain.

Keywords: digital transformation, information competency of students, scientific and methodological conditions, information competency development concept.

#### 1 Introduction

Currently, new national projects, programs, standards and guidelines are approved and fulfilled in the field of education. The development of national projects and programs such as "Education" (Passport of the national project "Education", 2018), "Science" (Passport of the national project "Science", 2018), "Digital economy of the Russian Federation" (Passport of the national program "Digital economy of the Russian Federation", "Open education" ("Open education"), contemporary digital educational environment in the RF" ("The contemporary digital educational environment in the RF"), the development of the WorldSkills high professional standards concerning competencies (WorldSkills Russia), the creation of the "ICT competency framework for teachers" guidelines by UNESCO ("ICT competency framework for teachers". UNESCO guidelines, 2019) and the professional standard of a teacher (On approval of professional standard "Teacher (pedagogical activity in preschool, general primary, general main, and general secondary education) (educator, teacher)", 2013) influence the change and upgrade of the Federal state educational standards of higher education for training of students - the future teachers. The basis of the contemporary Federal state educational standards of higher education (FSES HE) is made up by the competency-based approach. In the era of digital transformation and orientation to the competency-based approach, it is the development of information competency of higher educational institution students that goes

Digital transformation generates a new level for achievement of opportunities granted by digital educational technologies in education which is aimed at creating an anthropo-oriented digital educational space as an ecosystem of interaction geared to learners' individual educational paths. In taking a quantum leap, it is to developing the information competency in higher educational institution students that an important role is assigned as to one of the universal and meta-subject competencies revealing new aspects of self-fulfillment and self-development, and new abilities of interaction within the digital educational environment of higher educational institutions.

With regard to this, at the contemporary stage of fulfillment of the Federal state educational standards of higher education, it is essential to identify and achieve the scientific and methodological conditions for developing the information competency in higher educational institution students in the era of digital transformation.

This research considers a variant of description of the scientific and methodological conditions for developing the students' – future teachers' – information competency, with the said conditions making up the concept of developing this competency in the era of digital transformation.

#### 2 Literature Review

Many contemporary studies in education deal with digital transformation influencing identification and fulfillment of scientific and methodological conditions for developing the information competency in higher educational institution students.

Various aspects of digital transformation of the society and education are studied by S. D. Karakozov (Karakozov & Uvarov, 2016), A. Yu. Uvarov (2018), G. L. Tulchinskiy (2017), L. Yu. Ovsyanitskaya (2018), N. L. Smakotina (2017), L. S. Shulghina (2015), O. I. Popova (2018), W. Strielkowski, O. Chigisheva (2019) et al. According to their studies, digital transformation covers all spheres of the human life, that of education included, and it is associated with maintaining the anthropo-oriented digital educational space and using digital technologies for fulfillment academic and professional tasks more extensively.

The research by scientists A. I. Agheev, M. A. Averyanov, S. N. Evtushenko, and E. Yu. Kochetova (2017) identify a new level of digital transformation ensuring the creation of a high-tech infrastructure (digital space) and the rise of digital society.

The questions of digitization of education associated with developing and implementing digital information technologies into the academic process are considered by the representatives of I. V. Robert's scientific school (2010). These studies prompted the authors to outlining the problem of their research, namely, to identifying the scientific and methodological conditions for developing the information competency of higher educational institution students.

For this research, the approach of S. D. Karakozov and A. Yu. Uvarov (2016; Uvarov, 2018) to studying the phenomenon of digital transformation of education is of interest; they argue this is a synergetic update of the required educational results in the rapidly developing digital environment. They emphasize that digital transformation of education is inconceivable without achieving a high information competency development level by both learners and the teaching ones.

The contemporary problems of development of personal information competency, in particular, those associated with digital transformation and digitization of education, are detailed in studies of the Russian and foreign scientists (Tabachuk, 2017, 2019a, 2019b; Turusheva, 2009; Luchaninov, Bazhenov & Bazhenova, 2017; Sarzhanova, Alimbekovab, Slambekovab, Albytovab & Salykzhanova, 2016; Pinto Maria et al., 2016).

A number of studies in this field have been conducted by the authors of this paper and their colleagues (Tabachuk, 2016, 2017, 2019a, 2019b; Tabachuk et al., 2018a; Tabachuk et al., 2018b; Polichka et al., 2019); they detail various aspects of the development of information competency in higher educational institution students, the interrelation of its manifestation with individuals' creative initiative, the causes of the Internet activity turning into the Internet addiction, the transformation of views on personal information, digital and smart-competencies, and the

role of information competency in the professional establishment of a teacher.

In the era of digital transformation of education, it is the contemporary concepts of the anthropo-oriented trend, human-dimension education, described by scientific schools of L. A. Stepashko (1999), M. N. Nevzorov, and M. A. Nevzorova (2013) and oriented to building the learners' individual educational paths, searching for and fulfilling the scientific and methodological conditions for developing the students' information competency at this vector, that go to the foreground.

The main provisions of these concepts are taken into consideration by the authors; they argue that the impact of digital transformation on the development of information competency of higher educational institution students has to generate anthropo-oriented "living" in the digital educational environment of higher educational institutions.

#### 3 Research Methodological Framework

The subject matter of the research is the scientific and methodological conditions for developing the information competency in higher educational institution students.

The objective of the research consists in describing the scientific and methodological conditions for developing the information competency in students – the future teachers – which are the driver for creating contemporary concepts of development of the information competency oriented to the fulfillment of anthropological approach in the era of digital transformation and implementing them into the sphere of education.

According to the subject and the objective of the research, the following tasks were performed:

- Finding out and describing the national projects, programs, standards and guidelines for justifying the relevance of the research problem;
- Identifying the essence of the phenomenon of "digital transformation" affecting the building of the process of development of the information competency in higher educational institution students.
- Analyzing the FSES HE competencies aimed at developing the information competency in students – the future teachers, with the analysis to emphasize this necessity.
- Determining the notion of "scientific and methodological conditions" and the necessary conditions ensuring the development of the students' – future teachers' – information competency.

In order to achieve the objective of the research and complete the tasks set, the complex of mutually complementing methods was used: analysis of the FSES HE competencies aimed at developing the future teachers' information competency; summarizing the conceptual provisions of scientific pedagogical schools in the focus area under study; summarizing the pedagogical experience of organizing the process of developing the information competency in higher educational institution students in the form of scientific and methodological conditions. The methods applied were relevant to the set tasks, which has enabled the authors to register the results when analyzing the subject of the research.

#### 4 Results and Discussion

#### 4.1 Digital Transformation of Education Learning

This research relies on considering the essence of notions associated with the development of students' information competency: "digital transformation", "digitization of education", "anthropo-oriented digital educational space", and "the information competency of students".

Digital transformation of education influences the rise of digital society and generates a new variant of information interaction carried out on the subject – subject basis via digital technologies

(digital educational environment). It also brings about creation of conditions for fulfilling the anthropo-oriented approach within a high-tech infrastructure (digital space as an ecosystem of interaction oriented to learners' individual educational paths) and achievement of opportunities granted by digital educational technologies at a new level for automating the processes of working with information performed by subjects (digitization of education).

It should be noted that the outlined contemporary trends of digital transformation affect the process of development of professional competencies in higher educational institution students, the information one included.

The professional standard of a teacher specifies professional competencies and draws the attention to maintaining a high information competency development level both in relation to the general user one, general pedagogical one, and the subject-specific pedagogical information competency (On approval of professional standard "Teacher (pedagogical activity in preschool, general primary, general main, and general secondary education) (educator, teacher)", 2013).

The "ICT competency framework for teachers" guidelines by UNESCO emphasize the importance of developing individuals who possess the skills of using the ICT, who are capable of absorbing large volumes of information and operating them in order to make informed decisions, to efficiently manage their own lives and to fulfill their potentials ("ICT competency framework for teachers". UNESCO guidelines).

The professional standard of a teacher and UNESCO guidelines are the reference points for describing and implementing the scientific and methodological conditions of developing the information competency in students – the future teachers.

The authors focus the attention on the fact that the information competency of higher educational institution students is one of the universal and meta-subject competencies revealing new aspects of self-knowledge and self-improvement in the professional activity, and new abilities of interaction within the anthropo-oriented digital educational space.

# 4.2 Analysis of the FSES HE Competencies Aimed at Developing the Information Competency in Students – the Future Teachers

It should be noted that information competency being one of educational competencies ensuring the students' adaptation in the era of digital transformation plays an important part for the efficient integration of the ICT into the students' academic and professional activity and for the development of new abilities to exist in the anthropo-oriented digital educational space.

Let the relevance of developing the students' information competency be emphasized on the basis of analyzing the Federal state educational standards of higher education of various generations that cover professional training of students in field "Pedagogical education" (Tables 1, 2, 3). In the tables, groups of competencies are going to be singled out that are oriented to professional establishment and self-development of students — the future teachers, as well as to the development of their information competency.

Using the third generation FSES HPE in field of training 050100 Pedagogical education (qualification (degree) "bachelor") (FSES HPE of the third generation in field of training 050100 Pedagogical education (qualification (degree) "bachelor"), 2011) the authors of the research have compiled Table 1.

Table 1 Analysis of the Third Generation FSES HPE Competencies Aimed at Developing the Information Competency of Higher Educational Institution Students

Group of competencies	Competency name	Content of the competency
Overall cultural	OC-8	The readiness for using the main methods, ways and means for obtaining, storing, processing the information: the readiness for operating

Group of competencies	Competency name	Content of the competency
		the computer as an information management tool
	OC-9	The ability to work with information in global computer networks
Overall professional	OPC-3	The knowledge of fundamentals of the professional speech culture
Professional	PC-3	The readiness for using the contemporary techniques and technologies, methods for diagnosing the learners' progress in order to ensure the quality of the learning and upbringing process

Source: the authors of the paper using the third generation FSES HPE in field of training 050100 Pedagogical education (qualification (degree) "bachelor", 2011)

Based on the analysis of the FSES HE (3+) in field of training 44.03.05 "Pedagogical education" (with two training profiles) (bachelor studies level) (FSES HE (3+) in field of training 44.03.05 "Pedagogical education" (with two training profiles) (bachelor studies level), 2016) the authors of the research have identified groups of competencies aimed at developing the information competency in higher educational institution students; the groups are given in Table 2.

Table 2 Analysis of the FSES HE (3+) Competencies Aimed at Developing the Information Competency of Higher Educational Institution Students

Group of competencies	Competency name	Content of the competency
Overall cultural	OC-3	The ability to use the knowledge of natural sciences and mathematics for finding one's bearings in the contemporary information space
	OC-6	The ability to self- organize and self- educate
Professional	PC-2	The ability to use the contemporary learning and diagnosing methods and technologies
	PC-6	The readiness for interacting with participants of the educational process
	PC-10	The ability to design paths of one's professional growth and personal development

Source: the authors of the paper using the FSES HE (3+) in field of training 44.03.05 "Pedagogical education" (with two training profiles) (bachelor studies level), 2016

In compiling Table 3, the FSES HE (3++) (FSES HE (3++) in field of training 44.03.05 "Pedagogical education" (with two training profiles), 2018) was used for identifying the universal and overall professional competencies, and UNESCO guidelines ("ICT competency framework for teachers". UNESCO guidelines, 2019) were used for identifying the compulsory and recommended professional competencies aimed at developing the information competency.

Table 3 Analysis of the FSES HE (3++) Competencies Aimed at Developing the Information Competency of Higher Educational Institution Students

Group of	Competency	Content of the competency	
competencies	name		
Universal	UC-1	The ability to perform search, critical analysis and synthesis of information, use the systemic approach for solving the problems set	
	UC-6	The ability to fulfill one's self-development path based on the lifelong education principles	
Overall professional	OPC-2	The ability to participate in developing the main and additional educational programs, develop individual components thereof (using information and communication technologies inter alia)	
Compulsory professional	PC-1	The ability to create and apply the contemporary educational technologies, including the information ones, as well as digital educational resources	

Group of competencies	Competency name	Content of the competency
	PC-2	The ability to apply the information and communication technology means for solving problems wherever this is expedient
	PC-3	The ability to professionally create and use the information educational environment of an educational institution
Recommended professional	PC-4	The ability to create and use the contemporary ways of assessment in conditions of information and communication technologies (keeping digital record forms, digital class books and students' diaries included)

Source: the authors of the paper using the FSES HE (3++) in field of training 44.03.05 "Pedagogical education" (with two training profiles), 2018

This analysis shows a change of milestones in the development of students' information competency: from "acquiring the knowledge" – via "mastering the knowledge" – to "creating the knowledge " ("ICT competency framework for teachers". UNESCO guidelines).

Thus, focusing the attention on the development of students' information competency as one of the tasks of educational systems in the era of digital transformation, it should be noted that educational standards and pedagogical methods get transformed, new concepts and pedagogical technologies are created promoting the students' – future teachers' – mastering the skills of using ICT for pedagogical purposes and contributing to the development of their information competency. With regard to this, the scientific and methodological conditions providing for this process have to be identified.

#### 4.3 Scientific and Methodological Conditions of Developing the Information Competency in Higher Educational Institution Students

By scientific and methodological conditions, the components of pedagogical system are going to be meant which reflect the total of the internal and external elements ensuring an efficient development of the information competency in higher educational institution students based on the contemporary concepts of the anthropo-oriented trend, structuring the content, searching for new methods, forms and means.

The scientific and methodological conditions for unfolding this process at higher educational institutions are as follows:

- interaction of higher educational institution teachers on the basis of the shared understanding of the pedagogical essence of the "information competency of students" phenomenon;
- creation of an anthropo-oriented digital educational space as ecosystems for interaction oriented to individual educational paths of development of personal information competency;
- inclusion of digital information technologies developing the students' value-based attitude to the selected profession into the educational process of higher educational institutions;
- the use of various forms of speech activity, digital educational resources, information problems for the students to manifest individual meanings, understanding, and translating their own reflexive experience;
- the use of self-construction, self-control and self-assessment methods as applied to one's own information competency development level;
- implementation of new organizational forms of the anthropo-oriented focus: press conference-lecture, the ETRU technology (Experience – Tactics – Reflection – Use) (the author is L. M. Semenova (2013)), panel discussion, the basket method, the diary as a self-knowing method;
- the use of state-of-the-art means of informational support and digitization of the learning process (Robert, 2010; Polichka, 2017, 2018) (digital educational environment of higher educational institutions, computers, local and global networks, as well as study and methodological materials hosted by the educational institution websites in the Internet).

This approach to creating the scientific and methodological conditions for developing the information competency of higher educational institution students can be used in the activity of pedagogical workers of higher education when developing the main professional educational programs and methodological systems of teaching academic subjects as an important means for fulfilling them.

#### **5 Conclusion**

In conclusion it should be noted that the relevance of research in this focus area is justified not only by new projects, programs, standards and guidelines introduced but also by digital transformation of both the society and education.

Based on the analysis of studies in the field of digital transformation of education, approaches to organizing the anthropo-oriented digital educational space at higher educational institutions, the scientific and methodological conditions have been outlined that can become the basis for contemporary concepts of development of the information competency in higher educational institution students.

In order to find out the tasks of educational systems in the era of digital transformation, the authors have conducted the analysis of competencies specified in FSES HE of various generations aimed at developing the information competency of higher educational institution students.

Proceeding from the analysis of pedagogical literature and the study of conceptual provisions of scientific pedagogical schools in the focus area of the research, the notion of "scientific and methodological conditions" has been made more precise.

The scientific and methodological conditions presented in the paper are created and fulfilled by the authors of the research. As for studies of building the concept of developing the information competency in higher educational institution students in the era of digital transformation, these may be continued.

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#### **Primary Paper Section:** A

Secondary Paper Section: AM, IN

## COMPETENCE-BASED PROFESSIONAL DEVELOPMENT OF STUDENTS IN THE SPACE OF PROFESSIONAL EDUCATION INSTITUTION

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Abstract: The state policy in the field of professional training in the modern conditions is based not on harnessing student's personal interests to professional interests, but on instilling the interest in a student to the professional activity demanded and needed by the socium as laid down in the Russian Federation Law On Education. In this paper, the authors track the development of professional education in Russia, the factors that have impact on its development and the competence-based professional development of students in the space of a professional education institution. As a result of the conducted research, the authors have partially identified the criteria for assessing the level of students' competence in the areas of development under scrutiny.

Keywords: competence-based professional development, students' development, values, orientation, professional education institution, student's personality, competence level assessment criteria, competency.

#### 1 Introduction

According to the Strategy for Development of Education in the Russian Federation for a period until 2025 (Order N 996-r dd May 29, 2015) the priority task is to develop an individual of high moral dignity who shares Russian traditional spiritual values, has relevant professional knowledge and skills, has an ability to fulfill their potential in a modern society, and is ready for peaceful creation and protection of the Motherland.

When formulating new approaches to the professional education, a human shall be the focal point, since the global experience shows that the professional education is currently viewed as a social institution called to meet individual needs in the professional context.

The relevance of this research stems from the pressure of the problem of the relationship between educational and professional components in the professional educational space which requires an urgent solution. The main goals and content of the said components are defined through a multi-level educational system which core principle is to make the best use of individual capacities and to provide equal opportunities for development to all learners, and this system, which is oriented towards an individual, becomes the central pillar of and the most active participant of the professional education. The main problem of competence-based development of students in the space of a professional education institution is associated with the socioeconomic conditions of our country, which progression becomes a pressing concern. At the turn of the second and third millenniums, the predominant message was "A man is the most terrible thing for a man". Today, there is a shift in human values towards the values of practicality and materialism, therefore, the sphere of values in society is currently boiled down to selfishness and profit-seeking, which has significantly affected the scale of students' values. Pope John Paul II (Karol Józef Wojtyła) noted that for a human many values turn out to be weaker than material values, but only the spiritual, moral, and patriotic values indicate the personal development of an individual (Wojtyła, 1991); therefore, the core cultural values are especially important in the space of professional education, which predetermined our choice of an experimental base for this research, namely, professional education institutions. This research continues in the dimension of our search for suitable criteria to assess the level of development of general and professional competencies. Since professional education is mainly aimed at the formation of skills required to solve professional tasks, a student as a participant of professional activity is nominally pushed into the background, and the functional purpose of a professional education institution is determined by the direction of professional thinking of students as a community of like-minded people. A graduate of a professional education institution is expected to find a decent job in the labour market as an evolved competitive specialist. Evolvement of a competitive specialist and personal development are the two main directions of professional institution activities. Firstly, a professional education institution should provide competence-based training and, secondly, personal development of a student who will behave in the society according to the established norms.

#### 2 Literature Review

Professional and personal development turns out to be contradictory and extremely difficult on the path of student's evolvement into a self-contained, morally mature and professionally competent person, as the modern social and economic conditions in the country are not stable. The researchers emphasize that contradictions arising between the values existing in everyday life and traditional humanistic values make it possible for a person to accomplish the projected goals, as the individual behavior deviation is built up of goals and motives. Thus arising contradictions are especially important for our research, in the field of pedagogy of social-moral and patriotic competence-based professional development of a student, as they are indicative of the crisis phenomena in the life of the society, and the supporting evidence is provided in the works of researchers studying developmental problems (Bondarevskaya, 2007). It should also be noted that researchers focus on exploring the crisis state when addressing the problems of competence-based professional development of students, as it is an impetus for seeking the solution. Professional education institutions, as noted by researchers (Ivanova, 2017; Guzich & Pribega, 2015), have one important drawback, which is an imperative impact on the student's personality, as the program is built without account of personal needs in the educational space, i.e. the student is required to fully succumb to the teacher's The main challenges of competence-based demands. professional development and evolvement of a competitive college-aged graduate are associated with the information environment of the society, which changes the student. The adoption of information technologies has made it possible to broaden the outlook of students (Dmitrova et al., 2019; Soltovets et al., 2019). However, as demonstrated by publications, students have become more pragmatic, tough, and selfish (Norets, 2002). New scientific researches in the field of information and communication technologies are conducted and get widespread, thus expanding opportunities for the use of various forms and methods of education in a professional education institution.

In the scientific work of A.M. Novikov (2005) it is emphasized that the system of secondary professional education in Russia may function and may be improved only under certain external conditions.

The theory of competence-based professional development of students assumes the development of abilities for effective work, which includes: not only the integrity of the educational process, which should be aimed at instilling both humanistic values and general principles in students, but also the goal of the teacher to develop the students' skills of integrative and holistic perception of reality. For this purpose, a college teacher must have the necessary professional knowledge, which, in turn, will favour sustainable motivation for learning, development of the professional skills and fostering the readiness for active learning and cognitive activities on the part of students in a professional education institution (Vazina, 2002). The problems of competence-based professional development of students reveal the crisis phenomenon related to the process of personal evolvement - the crisis of values, therefore, the theory of values

constitutes the central methodological basis for designing a framework for competence-based professional development of students in the space of a professional education institution. Scientists distinguish between two kinds of values representing differing viewpoints - the material values and the values of consciousness (Drobnitsky, 1978), and describe the situation of split in values, which led to the identity crisis in Russian society (Akhiezer, 2002; Abulkhanova-Slavskaya, 2009). Raising the question of values in isolation from the human is meaningless, so the need arises for scientific exploration of the pedagogical system of competence-based professional development.

#### 3 Research Methodological Framework

The following contradictions served as prerequisites for the research:

- Between the values existing in everyday life and the traditional humanistic values;
- Between the increasing awareness of students and the level of development of their spiritual and moral culture.

The research hypothesis is the assumption that when the criteria for assessing the level of development of general and professional competences are defined, it will allow to ensure the professional competence-based development of students in the space of a professional education institution.

The research purpose is to substantiate the need for criteria to assess the level of development of general and professional competencies.

The research objectives are:

- To elucidate and substantiate the concepts reflecting the specifics of students' competence-based professional development;
- To analyze the current state of professional education in Russia;
- To identify the conditions for organizing competence-based professional development of students.

In order to address the research objectives and validate the hypothesis, a combination of research methods was used as described in scientific sources as well as based on comprehension of practical experience:

- theoretical research methods (analysis, synthesis, induction, deduction, abstraction, generalization, comparison, etc.);
- monographic study of teachers' works.

The method of theoretical analysis and synthesis makes it possible to identify the problem of this research, to compare different points of view on the educational content, to determine which studies should be used as evidence in the exploration of the topic, which scientific facts and provisions and in which fields of science should be considered and taken into account when making conclusions and proposals.

Theoretical analysis of the material collected during the research involves the analysis of the scientific achievements (in philosophy, sociology, pedagogy, psychology).

Theoretical analysis makes it possible to synthesize and identify the main correlations and dependencies between the content and the conditions of learning.

#### 4 Results and Discussion

## 4.1 Conceptual and terminological basis of Competence and Professional Development of Students

Due to the fact that the competency-based approach in education is an urgent concern today, the terms "competency", "competence", "professional competences" are used much more often when discussing issues of a new quality of education.

A great economic dictionary defines competence as "a total of powers possessed by any body or official established by the Constitution, laws, charters and the acts of state administration issued on the basis and in pursuance thereof", and competency as "a possession of competence", i.e. the mentioned powers.

The other meaning of the word "competence" has become widely used in connection with the elaboration of theories of labour organization and management. In his work, Zeer E.F. (2007) interprets this concept as follows: "competence is a substantial generalization of theoretical and empirical knowledge, presented in the form of notions, principles, and sense-making provisions". In its most general form, the concept of "competence" can be interpreted as "an integral and systematized combination of generalized knowledge" (Zeer, 2009).

The essential characteristics of competence, according to the researcher L.D. Davydov (2006), include:

- the "competence" concept is broader than the concepts of "knowledge, skills, and abilities", which it encompasses, and serves as a connecting link between its components;
- the "competence" concept in a broad sense is defined as a deep knowledge of a subject or a learned skill;
- the "competence" concept includes periodic and compulsory updating of knowledge and skills, as well as the ability to obtain reliable information to handle the tasks faced.

Competence-based professional development of students means a combination of professionally significant qualities necessary for becoming efficient in professional activities while achieving optimal results and goals, and it is determined not only by the student's personality, but also by their creative attitude to the professional activities, as well as their desire for self-education, self-governed learning activities and self-reflection.

#### 4.2 Current State of Professional Education in Russia

According to K.Ya. Vazina (2002), the professional education space can be understood as a totality of all subjects of learning, consisting of interrelated components, each contributing to the properties of the whole, and playing a direct or indirect role in the professional education processes, or somehow interested in those, namely, these are general education schools and secondary professional education institutions. As the main thing that should unite the multilevel educational facilities is a synthesis of interests in competence-based professional development of students to be organized on a new scientific and methodological basis: sustainability and continuity of educational process in accordance with the determined criteria for assessing the level of development of general and professional competencies. At the same time, the high quality of students' professional development is achieved through a holistic mastery of professional culture with due regard for the personality traits of a student, as well as cultural and historical traditions and trends of social development. The internal need and motivation for activity, according to K.Y.Vazina (2002), predetermine its usefulness. The learning process in a professional education institution is based on the application of the latest psychological and pedagogical theories of learning, helping students to develop an ability to independently solve problems in different activities in various fields. Meanwhile, in order to organize the competence-based professional development of students, the need appears to apply methods of active and interactive learning, along with the need to take into account the personal characteristics of each student throughout the professional training. It should be borne in mind that it is not enough simply to change the methods used to select educational content, it is necessary to define the model of the educational process, and to determine the criteria for assessing the competence level. E. F. Zeer (2016; Zeer & Popova, 2015) also describes the criteria for selecting professionally important qualities of future specialists in the field of vocational education in light of the modern requirements, and substantiates the requirements for the personal qualities of a modern specialist.

In turn, as concerns the content of education, several new aspects can be highlighted:

- More stringent requirements for educational material;
- Development of assessment tools;
- Selection of criteria and efficiency indicators of the learning process;
- Changed functions of and ways to organize the process for acquisition of knowledge, skills and abilities.

The potential of fundamentally different way to organize the educational process is indicated by A.Yu. Petrov (Petrov et al., 2016) in his works, it is presented in Table 1.

Table 1 Criteria of Innovative and Traditional Experience

Traditional Experience Innovative Experience				
Traditional Experience	Concept			
Student's personal development	Continuous development, self-development of a student, self-regulation of learning activities			
Function				
Teaching	Create conditions for continuous development, self- development of a student, conditions for self- governance and self-reflection			
	Goals			
Transmit knowledge, develop skills and abilities	Nurture a thirst for knowledge, develop abilities to learn and promote comprehension by a student of own learning activities			
	Means			
Subject-specific material	Teacher, student, study group (internal, external mechanism of development and self-development of a person)     Subject-specific material			
Content of education				
Implementation of state standard	Individual trajectory for completing the professional education program			
	Methods			
Teaching methodology	Developing pedagogical technologies			
Ro	oles played by a teacher			
Mentor, informer, appraiser	Collaborator, consultant, partner, intermediary			
	assessment of learning outcomes			
Aimed to check the acquired knowledge, skills and abilities	Aimed to find out the level of professional and personal development of a specialist			
<u> </u>	Result			
Actor	Active, efficient, competitive specialist in the labour market capable to take action in the life and professional situations, committed to continuous self-development			

Source: Petrov et al., 2016, p. 26

## 4.3 Conditions for Organizing Competence-Based Professional Development of Students

The analysis of criteria of innovative and traditional experience helps to proceed with determination of conditions for applying the competence-based approach in education:

- A teacher facilitatescooperation and pays attention to the student's personality;
- Student's activity involves active interaction with a teacher and other participants of the educational process, as a result, a climate of mutual support is created;
- The key priority is not the assessment bymatching the end result against a fixed reference, but the level of student's professional and personal development.

The analysis of the theoretical base has shown that the problem under exploration is multidimensional, the problem of competence-based professional development of students is considered within the axiological approach, and the philosophical approach has been developed through the sociopedagogical studies. The researchers also paid attention to the organizational and pedagogical conditions of the competence-based professional development of student's personality, in particular, to the developmental potential of extra-curricular activities.

The resolution of arising contradictions allows us to conclude on the urgency of the problem of competence-based professional development of students through educational and professional activities (Petrov Yu. N. & Petrov A.Yu, 2012).

The foundation for elaboration of the competence-based professional development of students were: the concept of education and culture, the principles of a systematic approach to the analysis of pedagogical phenomena, theoretical and practical aspects of educational design and modeling (Petrova et al., 2018; Petrova et al., 2019).

The competence-based professional development of students may help to develop the following professional and labor competences:

- Get clear understanding of one's future profession (Medvedeva et al., 2019);
- Plan and implement one's own professional and personal development (Medvedeva et al., 2019);
- Work in group and in team, effectively interact with colleagues, supervisors, and clients (Samerkhanova & Imzharova, 2018);
- Take responsibility for the team and the end result;
- Apply information technologies in professional activity (Gruzdeva & Tukenova, 2019).

Competence-based professional development of students also makes it possible to develop certain cultural competencies:

- Acquire a good knowledge of history, geography, culture, ethno-national identity of the country;
- Develop an ability and willingness to show tolerance for traditions, religion, customs and spiritual values not only of one's own people but also of other nations and races;
- Develop an ability to communicate, both verbally and in writing, in the state language with account of the social and cultural context, and to interact effectively in a multicultural environment (Yakovleva et al., 2018);
- Engage in productive creative work to create a cultural environment.

#### 5 Conclusion

The developed professional and labor and cultural competences made it possible to obtain, within the search domain, the criteria for assessing the level of competence-based professional development of a student in a professional education institution by developmental vectors. Competence-based professional development of students in a professional education institution is based on the principles of continuity, innovative orientation in training a qualified specialist for the society, who undergoes transformations, acts based on the market relations and is competitive in the labor market.

Within the framework of this paper, the concepts reflecting the specifics of competence-based professional development of students have been elucidated and substantiated, making it possible to identify the problem under study as an urgent direction of scientific search in the field of theory and methods of professional education.

Organization of the competence-based professional education and development of students is not effective without reliance on the principle of pedagogical cooperation, therefore, in the professional education institution it is necessary to establish an atmosphere of mutual understanding, support, trust and mutual exactingness of the teacher and students.

Any student has the right to choose for study those subjects that he/she considers essential in accordance with his/her own interests and plans, thus self-regulation of one's own learning activities occurs, and the motivation for learning and self-education appears. That is why the educational space aimed at the competence-based professional development of students should be understood as an objective developing process, as a way to organize educational activities, as a system in various fields of knowledge, science, surrounding world, thinking, based primarily on the self-comprehension in learning activities.

The technology of competence-based professional development of a student should reflect the educational system as a general goal and content orientation, organizational structure and form, outlined in the Federal State Program and Federal State Educational Standards.

Thus, the study of competence-based professional development of students in colleges has already allowed us to determine some criteria for the competence assessment in the relevant areas of students' development and to involve college students of 3<sup>rd</sup> and 4<sup>th</sup> years of study in the research activities.

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#### **Primary Paper Section:** A

Secondary Paper Section: AM, AN

#### SOCIAL VOLUNTEERISM IN THE SYSTEM OF REGIONAL SOCIAL INSTITUTIONS

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Abstract: The relevance of the problem under exploration stems from the growing social risk for population and the elaboration of efficient measures to support the citizens of the Russian Federation with a significant role played by promotion of social volunteerism. The purpose of this paper is to analyze social volunteerism as a form of social support for the socially vulnerable citizens in the country and as one of the most important directions of state social policy. This paper describes distinctive features of social volunteerism development in the Russian regions, defines motivational constructs of volunteers and the extent of their willingness to help, traces a need in volunteers on the part of social institutions and the immediate beneficiaries.

Keywords: volunteer activity, volunteerism, beneficiaries, help, support, social institutions.

#### 1 Introduction

Volunteerism has become widely spread in many countries across the globe long ago. Its contribution to social development is highly appreciated at the international level. That's why the volunteerism resource is increasingly becoming the target of studies carried out Russia in the field of sociology, pedagogics, psychology, law, and now also the tourism. It became evident when the President of Russia proclaimed 2018 as the Year of Volunteer. Undoubtedly, the volunteer movement in our country has been successfully developing for a long while, at least 7 million Russians are involved in various volunteer projects. Thus, at the end of 2017, 22% of Russians had experience in volunteering; in July 2018 this figure rose to 36%. There were 7% of those who call themselves volunteers at the end of 2017, and 11% in July 2018, which shows that the growth rate almost doubled (Mersiyanova, 2019).

The content of social services provided by volunteers is increasingly manifested in their variety and in-depth diversification, which is manifested in the growing complexity of multifunctional dependence, including their complementarity and cooperation, in the context of raising social significance and accessibility to all categories of the population in need of help. The services provided by volunteers are distinguished by a number of advantages, such as the use of a variety of tools and technologies, good organization, personalization and targeted help; an integrated approach; and the diversity of services. In addition to the above mentioned advantages, the cost-effectiveness is also one of the important characteristics of the services, associated with the low cost of such services due to the minimized administrative overhead costs.

Presently, in the Russian regions there is an extensive volunteering practice in social institutions. Volunteers visit children in orphanages and boarding schools, organize leisure activities and material support for the seniors in residential care facilities and nursing homes, provide assistance to people with disabilities in social service centers, etc.

#### 2 Literature Review

The volunteerism as a form of altruistic help has been explored by the Russian and foreign authors for a long time. But a "social volunteerism" term is new for the volunteer movement. Presently in Russia, various community service projects and funds promoting volunteering in the field of social support to various population groups are rapidly growing. However, overall this problem has not received the sufficient coverage, which along with the contradictions found in the social volunteering practices, has given rise to the purpose of this publication, i.e. to study the current state and determine the developmental prospects of social volunteerism.

S.V. Aleschenok (2004), A.I. Ambrazhevich (2009), L.V. Avrorina (2017), A.A. Ivanov (2013), E.Yu. Popova (2016), explore the specific features peculiar to organization of volunteer activities in the system of state social institutions and non-state non-profit organizations.

The methodical manual produced by Yu.S. Belanovsky and I.V. Shirshova (2018) describes the existing technologies for organizing and managing volunteer activities in the social sphere. Special attention should be paid to the work of Yu. Belanovsky "Social Volunteerism. Theory and Practice" (2016), where the author deals with the basics of volunteer management in public institutions, the principles for organization of volunteering work, the methods of work, and the systems of motivation and award. The materials have been prepared based on the experience of the Danilovtsy volunteer movement.

The essence and content of volunteering activities as a social phenomenon, the principles and forms of volunteering, motivation of the participants of volunteering practices became the subject of numerous studies by G.P. Bodrenkova (2013), N.I. Gorlova, T.V. Zaltsman et al. (2018), V.A. Lukyanova (2015), N.Yu. Slabzhanina (2011), L.E. Sikorskaya (2014, 2015), O.I. Kholina (2015).

The work of volunteers in the system of state institutions, including social service organizations, is examined in the papers by A.A. Klepikova (2018) and A.S. Bakulina (2017).

#### 3 Research Methods

The leading approach to the study of this problem is a structural and functional approach, which helps to identify the features peculiar to the general (societal) system of volunteerism in the Russian Federation and social volunteerism as one of the feasible ways to provide quality and diverse supplementary social services to institutions (organizations) serving the individual needs of the beneficiaries of social services from institutions (organizations) that cannot or should not be served by regular (paid) employees of such institutions (organizations). The researchers have employed the following methods to carry out this research: a questionnaire survey, methods of systematic approach, observation, modelling, qualitative analysis and typologization of the collected information.

The purpose of our research was to study and analyze social volunteerism as one of the feasible ways to provide quality and diverse supplementary social services to the institutions offering social services.

The research objectives were as follows:

- With reliance on the interrelated research principles of concretization, typologization and objectification, conduct a survey to explore the conditions for the establishment of social volunteerism as a form of social support to the socially vulnerable citizens within the Russian Federation.
- Based on the analysis results, define the main directions of further development of social volunteerism in the regions.

#### 4 Findings and Discussion

As a part of this research, the authors conducted a survey to explore the conditions for the establishment of social volunteerism as a form of social support to the socially vulnerable citizens within the Russian Federation and one of the most important directions of current social policy of the state,

and to define the needs of institutions in the volunteering assistance of different types and forms.

The subject area of the research was the volunteer work in social institutions

The methodological basis of the research was constituted by the anonymous questionnaire survey conducted in 2018. The survey covered 1650 respondents residing in the Russian Federation (Altai Territory, Vladimir, Voronezh, Ivanovo, Moscow and Astrakhan Regions, Krasnodar Territory, Khanty-Mansi Autonomous Area, etc.), including 750 volunteers, 600 clients of social institutions or beneficiaries, and 300 employees of regional social service centers, departments of social protection, centers for aid to families and children, etc.

The age and sex breakdown of the respondents participating in the sociological survey was as follows: 32% men and 68% women, aged from 20 to 70 years.

The key questions of the questionnaire related to the following thematic blocks: the essence of volunteer work and its distinctive features in the social service sphere; motivation and interest in volunteering; the problems and barriers encountered by volunteers in their work with certain categories of citizens (beneficiaries); upsides and downsides of the process of organizing volunteer efforts, expectations of beneficiaries and social organizations.

Structural and functional analysis of plenty of answers to the questions "How do you understand social volunteerism?" and "What dimensions does it include?" allows us to underline that all provided definitions of "social volunteerism" in general reflect a clear understanding of this special area of volunteer efforts and express it as follows: social volunteerism means the activities directed at improving the quality of life of socially vulnerable categories of citizens (disabled people, children with disabilities and people with health limitations, seniors, orphans and children deprived of parental care, and other categories).

Basically, the analysis of different interpretations of the "social volunteerism" concept helps to define the common essential features of this concept - no external pressure, gratuitous nature and social significance.

The survey revealed that the following activities of volunteers are the most mass, widespread and common today (in the descending order):

- Organization of cultural and mass events, cultural and leisure activities, and sports and recreation activities;
- Awareness raising and preventive activities;
- Social support to the population, social household services;
- Humanitarian aid.

As concerns answers given to the question "What kind of assistance does the population expect from volunteers?", it was quite foreseeable, in our opinion, that most answers were related to the provision of social household services. The second place belongs to the answer "social assistance to seniors, people with disabilities and families with small children". This includes the necessary social, medical, psychological and consulting assistance, and feeling the need of this category of citizens in good nutrition, communication and leisure. The third most popular answer was to collect money for medical care and essential supplies.

The fourth place in the list of expectations of the population belongs to various forms of volunteer activities with minor children and teenagers from families exposed to socially dangerous situation, orphans and children deprived of parental care. These include, first and foremost, mentoring, tutoring (e.g., teaching foreign languages), conduction of creative and applied master classes aimed at developing professional skills of the minors, vocational guidance, accompanying a child to school; organization of children's free time, etc.

Finally, the fifth place in terms of population preferences is taken by the answer "organization and conduction of cultural, leisure and entertainment events".

Summing up, a study on the needs of the population in assistance from volunteers shows that the major needs lie in the field of health, financial situation, medical care, and handling of various social household issues.

The next block of questions in this research helped us to define the needs of institutions in the volunteer assistance of different types and forms. Below we analyze the most frequent requests from institutions:

- Organization of cultural, leisure and sporting events for the social institution clients (entertaining and festive events, creativemaster classes):
- Provision of social household services (clean the apartment, wash windows, cook, go to pharmacy, write a letter to dictation, fill in the documents, etc.);
- Participation in sociocultural rehabilitation and social adaptation of disabled children;
- Participation of volunteers in social support for disabled children:
- Conduction of master classes and events geared towards development of professional skills of the minors and their vocational guidance;
- Help in caring for people who suffer from serious illnesses and people with impaired mobility.

The analysis of answers to the announced question revealed that the most demanded type of assistance from volunteers to the inpatient social care facilities are theorganization of cultural, leisure and sporting events. The social care facilities providing in-home careservices turn to volunteers for the social household services and assistance to the seniors residing in rural area with improvement of the house surrounding grounds, house cleaning, crop harvesting, log piling. The third place in the list of requests from institutions is given to various forms of volunteer work with minors and adolescents from dysfunctional families and with disabled children (mentoring, tutoring, accompaniment, organization of leisure, vocational guidance, etc.).

In addition, an analysis of the needs of beneficiaries and the activities of volunteers in the regions revealed considerable differences:

- Between the expectations of beneficiaries and the actual volunteer practices. These contradictions become especially vivid when comparing the top 3 needs of the population in the help from volunteers (social household services, assistance to socially vulnerable categories of citizens, fundraising) and the most spread types and forms of volunteer activities in the regions (organization of cultural, leisure and sporting events, awareness raising, preventive activities and ranked only 3rd humanitarian assistance, fundraising, provision of social household services and social aid).
- Between the expectations of the beneficiaries and the capacity of volunteers to satisfy those. Major expectations of the population are related to the various forms of assistance implying regular long-term volunteer activities. But the results of a study on the inner needs have demonstrated the orientation of volunteers towards short-term (often episodic) participation in volunteer projects and programs.
- Between the basic needs of the beneficiaries and the competences of volunteers to provide the necessary skilled services. The lack of special training of volunteers, insufficient knowledge of basic principles of interaction with challenging categories of population (seniors, disabled people, orphans, etc.) affect the quality of services provided and the willingness of volunteers to work. Social institutions are not always ready to spend their own resources to train volunteers.

When processing and analyzing the questionnaires, we carefully explored all possible answers to the question "Which activities of no interest to volunteers? Specify 5-10 activities providing a reason why those activities are not popular".

Despite the positive trends in progression of volunteer activities, there are certain problems that need to be addressed: first of all, not all volunteers express readiness to work with different categories of beneficiaries.

There are also problems related to the volunteers themselves, because despite the positive trends in the progression of volunteer activities, not all volunteers express readiness to work with different categories of beneficiaries.

As the research results showed, quite a high percentage (7.8%) of volunteers are not ready to care for people who suffer from serious illnesses and people with impaired mobility.

6.6% of volunteers are unwilling to provide in-home social household services. However, most of the reports contain clarifications that volunteers, for example, refuse to clean neglected housing, to work in unsanitary conditions, to cook, to do repairs (fixing a tap, roofing, etc.) due to the lack of necessary qualifications.

A similar percentage value (6.6%) was obtained for the responses about the unwillingness of volunteers to provide systematic care to seniors and people with disabilities.

A slightly lower percentage (4.8%) of respondents indicated that volunteers have major concerns about work with asocial population categories (persons suffering from alcoholism, drug addiction, persons with criminal record, persons without any place of residence) and with citizens suffering from mental disorders and illnesses (3.6%).

2.4% of volunteers are not ready to participate in long-term projects (mentoring, supervision, foster care) with disabled children and orphans, or to accompany minor "challenging" children and adolescents (3%)

2.4% of all respondents are not ready to provide assistance to medical staff.

And finally, there are volunteers (0.6%) who do not want to be involved in the search for resources (participation in charity events to raise money, clothing, etc.).

The reasons for this become clear after analyzing the answers to the second part of the question "Specify 5-10 activities providing a reason why those activities are not popular", which allowed to objectify the unwillingness or unpreparedness of volunteers to take part in certain activities related to providing assistance to a particular group of recipients.

The obtained picture is as follows:

- Work with vulnerable families, disabled children, orphans is always a very subtle area of personal involvement, which implies high responsibility and requires long and consistent work;
- A heavy psychological burden of work with challenging categories of recipients;
- Low interest and motivation of volunteers to participate in long-term activities on a regular basis;
- Personal safety issues related primarily to work with asocial population categories;
- Lack of necessary skills to communicate with different categories of recipients (difficulties and complexities of interaction with seniors and disabled people);
- No appreciation on the part of recipients;
- Frustration over the impossibility to achieve the pursued goals and expected results, failed hopes to change the quality of life of the clients (recipients).

Next reason mentioned is the lack of consistency in the work of volunteers (meaning that volunteers visit institutions for onetime events and are not ready for long-term involvement) and lack of a unified system of requirements for the work of volunteers (many respondents pointed to the need in the use of regulations by such institutions in respect of the activities of volunteers).

The next question was: "What conditions need to be met for volunteers to willingly go to help the social institutions?" Having analyzed the detailed answers of the respondents, we managed to distinguish separate blocks:

- Training of volunteers;
- Creation of safe and comfortable working conditions in social institutions:
- Organizational and methodological support for the activities of volunteers;
- A favorable psychological climate in institutions;
- Openness of institutions for volunteers;
- Simple and clear requirements and rules of work for volunteers:
- Provision to the volunteers of the equipment necessary for their work;
- Convenient task schedule for the volunteers;
- Offering a possibility to receive a free medical check-up;
- Internship opportunities.

It is important to highlight that the analysis of the information collected by us through this research allowed us to achieve the announced purpose and to fulfill the defined objectives. All answers to the questions were anonymous and were subjected to scientific analysis in a generalized form. All survey respondents, without a single exception, participated in the survey on a voluntary basis and were informed that they were participating in a scientific experiment. The opinion of each respondent was very important to us and helped us to consolidate the results and articulate a conclusion.

#### 5 Conclusion

Practical application in the research of sociological scientific methods enabled the authors to fully implement three interrelated principles: concretization, typologization and objectification.

The principle of concretization, in our case, became the first and starting principle for this sociological research. It allowed us to depict the object of research - the volunteers aged from 20 to 35 years - as a carrier of social changes within the modern Russian society, which, from the point of view of sociology, represents a very specific historical epoch. The main purpose of the survey was to identify the needs of institutions in the volunteer assistance of different types and forms, expectations of beneficiaries, and real volunteer practices. The respondents included both socially vulnerable citizens (disabled people, elderly citizens, families with disabled children, etc.) and employees of social institutions.

The second principle that guided us in the course of the survey was typologization. In our case, it was embodied in the fact that the respondents who took part in the survey were quite typical representatives of youth and middle-aged people.

And finally, the third principle - objectification - allowed us to sensibly and objectively estimate the results of sociological research, which will be the basis for further scientific developments of the team of authors of this paper.

On the basis of the conducted analysis, we have defined the main domains of focus when addressing an issue of development of social volunteerism in the regions:

"Regulatory measures":

- Development of departmental federal, regional and local programs intended to support and promote the social volunteerism;
- Formulation and adoption of solutions in the field of social volunteerism with due regard for the opinions of representatives of the volunteer movement, the Association

- of Volunteer Centers of Russia (AVC of Russia), and their inclusion in public and expert councils and taskforces that have been or will be created under federal and regional executive bodies;
- Creation of a standard for the services provided by social volunteers.
- "Infrastructural and organizational measures":
- Involvement of non-profit and volunteer organizations in the implementation of federal and regional state social programs, providing them with informational, organizational, expert and scientific methodological support;
- It is necessary to continue the policy of allocating regional subsidies to non-profit organizations promoting volunteering, and to increase the amount of presidential grants for the "Support of Volunteerism and Volunteers";

#### "Education and outreach measures":

- Promotion of the culture of volunteerism and involvement of citizens in volunteer programs and projects;
- Raising the professionalism of employees of non-profit organizations in the field of creation and development of social volunteer programs through their training and internships;
- Facilitating the development of partnerships among the nonprofit organizations and inter-sectoral interactions by means of experience sharing and replication of best practices in the field of social volunteerism.

#### "Motivational measures":

- Development of additional motivational incentives for volunteers providing regular assistance to social institutions;
- Titles and badges of honor awarded by governments and administrations of the constituent entities of the Russian Federation to individuals and legal entities engaged in systematic voluntary charitable activities;
- Recognition in the mass media of a high value of activities undertaken by the best social volunteers.

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#### **Primary Paper Section:** A

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## SINGLE-PARENT FAMILY IN THE DISCOURSE OF SOCIAL TRANSFORMATIONS IN RUSSIAN SOCIETY

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Abstract: The social and economic restructuring in Russia has led to transformation in views on contemporary demographic policy, which has triggered certain changes in the institutional and moral-ethical norms and traditions of the modern family. The purpose of the empirical study was to examine the impact of family relationships and family status on the process of socialization and formation of a child's personality. The authors describe the revealed basic trends in the development of a modern single-parent family, typical patterns of behavior demonstrated by males and females raised in single-parent families, features specific to the process of socialization in a modern family, risk factors that hinder successful targeted socialization, the major problems faced by a single-parent family, as well as possible ways to mitigate the implications.

Keywords: family institute, single-parent family, value orientations, demographic situation, social policy, model of family relationships, socially responsible parenthood.

#### 1 Introduction

The problems of modern family and marital relationships are not new to the global community.

The social and economic development of modern society cannot be imagined without interactions between individuals and between societal spheres with other socio-economic systems and states (Rodionova et al., 2017; Starovojtova et al., 2020). A huge variety of different spheres of social life in conjunction forms a single system that functions and develops according to the universal laws of social development (Weber, 1993). But these laws apply in a particular historical setting, so the result may not be consistent with expectations.

Moreover, since a human may exert influence on this setting, it is in his power to influence and change it directly and purposefully (Akvazba et al., 2018). When we speak about the socio-economic or political sphere of people's life, these are the systems that a human may change for his own benefit and for the benefit of the society (Goffman, 1963).

The fundamental pillar of any society is its socio-economic system, which has an effect on other spheres of life of modern society (Akvazba et al., 2019). In the context of our study, family is the main source of social and economic prosperity of the country, since it is the most important social institution, a springboard for the formation of spiritual and moral core, psychological support, character building and education. Family for a child is the most important social environment (Bokum, 2006), where a child acquires (internalizes) the model of family relationships, which he/she will use in future to build own family model (Bashkirova, 2007).

Multiple changes of old models and the emergence of new social norms lead to the transformation of one of the most important social institutions (Znaniecki, 1954). The family performing an aggregating function absorbs all changes occurring in social life, and thus is its reflection and driving force.

#### 2 Literature Review

Family issues have always been of interest to researchers and have been examined in various dimensions of social and political relations (Bim-Bad, 2002). Thus, the founder of modern psychoanalysis Z. Freud, whose contribution to the study of the phenomenon of family was very substantial, regards it as a special "sphere of mental reality" (Pedagogical terminological dictionary, 2006).

As noted by A. I. Antonov and V. M. Medkov (2006) in Family Sociology, Adler sees family as a miniature reflection of society

and well-being and stability of family are crucial to the integrity of society as a whole. In the works of some researchers, the social institution of family is regarded as a reflection of culture and thus its miniature representation (Gozman & Aleshina, 1995). Some academic and research papers are exploring family and marital relationships in an effort to gain a profound insight into the problems of a modern family and to find possible solutions. The psychological and pedagogical framework of parent-child relationships in family is described by V. E. Kagan (1992); the typologies of family relationship styles and socialization in the family were scrutinized by I. Lahmeyer and Z. Matejček (1984). The problems of personal socialization in the family and society were also of interest to the foreign scientific community (Parsons & Bales, 1955), the interest to the problem of changing social structure and its transformation continues unabated (Merton, 1938).

A frequently discussed problem of value orientations forming (formedness) in modern society, which is often discussed today, is of great importance (Parsons & Bales, 1955). The system of values not only characterizes an individual in terms of maturity, but also expresses a meaningful attitude to the surrounding reality, which ultimately determines the degree of integration in society and motives behind actions (Vygotsky, 1984). Researchers have found a certain relationship between a person's system of fundamental values and socialization.

Today, development of a system of social services permits to project a targeted influence on families in order to diminish the scope of their problems and help them overcome difficult life situations. To this effect, well-organized social work in family offers a large arsenal of opportunities for correction, support and psychological assistance, thus contributing to strengthening of the institution of single-parent and problem families and improving their social status and material well-being.

Any social transformations, economic reforms and other challenges of modern life undoubtedly destabilize all spheres of social life, but, first of all, they affect the family (Parsons & Bales, 1955). Specialists who explore the problems of single-parent families point out that two-parent families have much more success in tackling the faced problems. Despite obvious urgency of the problem under scrutiny, its coverage is insufficient, which presents us *a goal* to reveal the features specific to the development of the social institution of family through a specially organized state family policy. At the same time, we believe that the main *objective* is to determine the magnitude of influence rendered by country's social and demographic development on the family policy in Russia.

The steady upward trend in the proportion of single-parent families is becoming increasingly alarming today (Frolov, 1999). For deep understanding of this process, its underlying causes should be examined. Special studies looking into the growing number of single-parent families show that the main reason for their emergence is divorce. Due to their growing number and no further remarriages, they are becoming a mechanism that diminishes the importance of marital relationships in general.

According to researchers, the most frequent causes of marriage termination are infidelity, alcoholism, and bad habits (Reznik, 1996). The shift in the value orientations of the modern society from treating divorce as shameful and condemned by society, and sometimes forbidden, towards liberal, almost indifferent attitude and no condemnation by the society and the state has made it more common. Today, it is not yet clear what effect the low moral-ethical responsibility of parents entering into a marriage on the basis of short-term relationships will have.

The share of children born out of wedlock in total births is increasing (Levkovich & Zuskova, 1985). Such families are referred to as mono-parental or unmarried parenthood and their number keeps growing. At the turn of the 20th and 21st

centuries, the birth of a child out of wedlock by a woman was in most cases a very conscious step towards motherhood (Kagan, 1992). But this posed a threat to such a family because of unforeseen circumstances related to the health of a sole breadwinner, high mortality rate among men of active childbearing age, which leads to widowhood and orphanhood. The urgency of the need to study this social category is clearly illustrated by statistics, thus, in 2019 there were 14.3% of single-parent families in Europe, and 17.4% in Russia (Statistics on single-parent families in Russia, 2019).

#### 3 Research Methodological Framework

The object of our research is a single-parent family. The research subject is the upbringing in a single-parent family.

The research purpose was to reveal the particular effects of growing up in a single-parent family, and how single-parent family affects the child's model of family relationships.

Single-parent family is a family comprised of a single mother (single father) with a child (children), a divorced woman (divorced man) with a child (children), a widow (widower) with a child (children). This type of family is primarily characterized by broken connections and impaired system of relationships between family members. Researchers distinguish three types of modern family. Kinship (complex) family comprised of relatives, their spouses and children. This family type is quite rare today. The second family type is a nuclear (mass) family comprised of one married couple It is characterized as a family having few children. This is the most common type of modern family, which exists quite autonomously and independently.

To analyze statistics indicating the growth in the number of single-parent families, we turned to the results of the 2017 census. According to the census data, the share of single-parent families in Russia was 17.4%, of which 12.1% were maintained by a single mother, and 1% by a single father (Operational indicators for the period from 1945 to 2020). By the reasons of occurrence of this or that family, the following major types of single-parent families have been distinguished: extramarital; orphaned; divorced; broken.

A distinction is also made between father-headed and mother-headed households; the latter constitute an absolute majority among single-parent households.

One of the most common reasons for the emergence of singleparent families is low stress resistance and low moral preparedness of parents for the difficulties caused by the addition of a child to the family (Palagina, 2005).

Single parenting produces certain effects: a shift in social functions and social roles and a distortion of the gender model of behaviour.

The study held in spring 2020 on the basis of the Department of Humanitarian Sciences and Technologies of Tyumen Industrial University relied on the questionnaire survey as a basic research method. It was an online questionnaire survey among volunteers of different sexes, ages, and marital statuses. In total, 2,000 residents from different regions across Russia took part in the survey. The survey was held on an underlying assumption that if a child was living until the age of 14 with both biological parents, the family is classified as full. If for some reason, one of the parents was absent before the age of 14, a child is viewed as having grown in a broken family.

The research objectives included, first, identification of the main parenting trends; second, identification of the preferred pattern of behavior within a family; third, identification of motivation for creation of own family and preservation of family relationship; fourth, identification of effects on the educational potential of a single-parent family and, consequently, fulfillment by a single-parent family of the social function and the social order from the community.

In addition to questions for collecting standard personal information, some more specific questions were asked. Some questions promoted open answers. The main lines of questionnaire survey were as follows.

- 1. Has your family represented a positive model of relationship between parents for you?
- 2. How often have you witnessed aggression between parents (your parent and his/her partner)?
- 3. What impact do you think this has had on you?
- 4. At what age do you plan to build your own family?
- 5. What was a family family you grow up with until the age of 14 (according to the classification provided in the survey description)?
- 6. Did you grow up in a family with older siblings?
- 7. What is that you lacked while growing up in a single-parent family (e.g. attention, material support, self-confidence and confidence in the surrounding world)?
- 8. Do you have any fears that you may repeat the fate of your parents?
- 9. May a single-parent family be fully functional?

#### 4 Results and Discussion

The research results indicate that only 21.7% of respondents grew up in single-parent families and for 58.7% of respondents, families in which they were raised represented a positive family model for them.

It should be highlighted that some survey participants who grew up in single-parent families noted that they experienced material and domestic difficulties and educational problems. The psychological climate in a single-parent family is largely determined by the painful feelings induced by the loss of one of the parents.

The majority of single-parent families emerge after departure of a father. That is why sometimes women unconsciously project their frustration with their ex-husband onto a child. In some cases, the mother seeks to make up for the lack of paternal care by giving extra care and tenderness to a child. In all such situations, the family atmosphere has a negative impact on the development of the child's personality. Besides, a child in a single-parent family is deprived of a possibility to obtain a good pattern of gender-appropriate behavior.

The boy does not get a possibility to observe the male behavior of the nearest role model and unwittingly adopts female traits. The mental and sexual development of a girl in a single parent family is also full of contradictions. Often children from single-parent families, compared to their peers from full families, have lower performance at school, are more prone to neurotic disorders and wrongful conduct. However, this does not mean that a single-parent family is always dysfunctional, and 69.6% of respondents agree with that.

It is also conspicuous that 29.5% of respondents said yes to the question "Do you have any fears that you may repeat the fate of your parents?" addressed to those survey participants who grew up in a single-parent family. While, 58.7% of them plan to build their own family when they reach the age of 25, and 13% of respondents have no plans whatsoever to create the unit of society.

The conducted research shows that the problem of personality development in a single-parent family exists and is of high concern.

Below are the answers of the respondents illustrating how aggression between their parents affected them: "I gained an understanding that marriage and family are not so easy, that it is a daily job"; "I can't say how it affected me, but I felt scared in childhood"; "Negatively. On the one hand, I am aggressive myself sometimes. On the other hand, plenty of fears and complexes developed."; "The early realization that neither perfect family not perfect relationship exists"; "It's so unpleasant, I'll try my best to make sure that this does not happen with my

family, or is minimized"; "I realized that for the role of a life partner I should choose someone who treats me respectfully; and not be guided by the principle "heart knows no law, I will love him the way he is", but examine scrupulously all the pluses and minuses". "I gained precious experience how to avoid the same mistakes in the future in my own family"; "The quarrels had a negative impact on my psychological health".

So, a single-parent family, although encountering certain objective difficulties, nevertheless has sufficient potential to raise children in a fully functional way. Therefore, parents who have lost their attachment to each other and live together only because of their children often make this sacrifice in vain. And a child witnesses a negative model of relationship between parents. This, from 15.2% to 4.3% of respondents quite often and regularly observed aggression between parents.

A parent who becomes the head of a single-parent household should soberly realize psychological implications of this situation and prevent its negative effects.

Socio-economic transformations and factors having revolutionary influence not only on the economic setting, but also on social qualitative changes in value orientations of the modern society, could not but affect life strategies of the institution of marriage and modern family trends. They can be traced in the results of research of the main demographic processes, i.e. declining birth rates, population ageing, growing dependency burden, migration, growing proportion of divorces and single-parent families, lower number of children in families and their nuclearization.

#### 5 Conclusion

A single-parent family performs a number of socially important functions, and remains a functional social institution and socialization agent, but it encounters certain objective difficulties and educational potential of the families of this category is not always sufficient.

The basic subject of the family is a parent, and as such, he/she should have a strong sense of self and possess certain knowledge about the psychological and social complications that will occur in a single-parent family...

Family has always been of interest for researchers, thinkers, and philosophers as the main social institution that has a capacity to raise a personality with inherent spiritual and moral qualities. Considering special conditions of a family, where a child is born and raised, generations change and the human race continues, it is always in the center of society's interests and one of the key topics in the modern discourse on the role and development of family relationships, their value and solidness of family traditions

Social value of a family lies in the moral and ethical goals that are pursued by the social system in which it exists. Creation of a healthy family with the right values is one of the main goals of any society. Given today's interpersonal and inter-state intricacies on the way to the world of justice, kindness and understanding, family has to overcome many different problems that sometimes have a destructive effect on it.

In this sense, a single-parent family is the most exposed. According to researchers, more than 12% of all families are single-parent (Biryukova et al., 2019). This is a rather high proportion, which in view of all other factors destructive to the family, is indicative of dysfunctionality in this social sector. The existence of single-parent families is not fatal in itself a priori, but in the presence of aggravating circumstances, solo parenting may have an extremely negative impact on the unfolding family situation.

Researchers characterize this category of people as deprived of a fulfilling spiritual and moral life and, as a rule, experiencing financial hardship. According to scientists, on this soil a family model develops which is later used by a child to build its own family.

Family-marital relations by their nature are meant to lay a solid and healthy spiritual and moral foundation for the next generations, deprived of complexes and inferior (in many cases) living conditions (adults who do not have their own family).

The change in political system followed by economic restructuring could not but have affected the priorities of the modern family. The current Russian social policy is promoting strong family relationships and responsible parenthood.

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**Primary Paper Section:** A

Secondary Paper Section: AM, AO

#### CHALLENGES OF STRATEGIC PLANNING AT A MODERN ENTERPRISE

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Abstract: Relevance of this research is high due to the challenges encountered by modern enterprises in strategic planning. The paper summarizes the outcomes of different planning strategies chosen by the enterprises operating in the region; reveals causes hindering the wide use of progressive elements of strategic planning by the enterprises belonging to certain groups; examines conditions of the preparatory stage for organizing strategic planning in the enterprise; validates organizational prerequisites necessary to build up the resource capital of strategic planning for business management. The paper has a practical value for the heads of businesses and of municipal and state governance bodies, as it contains recommendations on revision of the company philosophy reflecting its core values and guiding principles.

Keywords: strategic planning, operational planning, market research, market orientation, enterprise management, resource capital.

#### 1 Introduction

Today in the challenging economic circumstances, companies in Russia seek effective management and planning frameworks. And independence of the companies in the market economy in setting key targets, long-term goals and roadmaps have amplified importance of the planning function.

It should be noted that strategic planning at the company level in the companies with an administrative-command management system was not implemented since there was no need in such planning when the operating environment is rather stable. Anyway companies made long-term plans, but planning was based on the method of extrapolation and directive indicators. In 1980s, the western ideas of strategic planning were first applied the Soviet economy, but back then it was not adopted at the micro-enterprises (Karpov, 2009; Markova & Kuznetsova, 2019; Shershneva & Oborska, 2004; Nalivaychenko, 2007, 2009; Nalivaychenko & Dorofeeva, 2011; Kirilchuk & Shpak, 2014). Therefore, it is important to empathize that despite changes in the overall market development context, its objectives and principles, regardless of business models, the planning function retains its importance and remains relevant (Abramov V. S. & Abramov S. V., 2019; Berezhnov, 2018; Burov, 2018).

In present days, the reforms in the Russian economy lead to changes in the business philosophy and behavior of business actors, transformations in the business management framework and strategic thinking of chief executives (Kirilchuk & Nalivaychenko, 2016; Fahey L., Randall, 2016; Malyuk, 2019; Nalivaychenko et al., 2018). It is also worth mentioning that there remain a number of unresolved issues in the field of strategic planning that impede its implementation. In the national economy, the above issues evoke strong interest among economic researchers and practitioners and validate the relevance of this study.

#### 2 Literature Review

Regardless of a business model, planning is essential to the business efficiency (Skomoroschenko et al., 2018; Pripadchev & Gorbunov, 2015; Wilson, 1998).

The foreign practice indicates that a company needs a clear plan for the future envisioning the main strategic direction of its development. P. Doyle (1999) noted that "the significance of planning is that it is the only route available to any company which will clearly increase the odds of success" (p. 181). In the dynamic external environment, a need arises to use the concept of strategic planning based on which the adaptive framework can be built to respond to the changing market conditions. However,

in the international community attitudes toward strategic planning have changed several times over the past 30 years, from a widespread praise to critical rejection (Kleiner, 1998; Wilson, 1998). J. G. Wissema (1996), a renowned Dutch economist, asserts that "analytical methods of strategic planning are still widely used today. The only thing that has changed is that these methods are no longer confined to the planning department, they have become a tool of analysis and deep thinking used by the entire company" (p. 177).

Meanwhile, as noted by Russian scientists focusing on introduction of strategic approach in the enterprise management, the issues of strategy development have not yet occupied a prominent place in the company life (Gerasimov et al., 2017) Nalivaychenko, 2019; Rozanova, 2019; Shemeneva & Kharitonova, 2017). Therefore, today the urgent problems are the current attitude of chief executives of Russian companies to strategic planning; the extent to which strategic planning is used in Russian companies; the use of elements of strategic planning in business practice; the causes hindering introduction of strategic planning at the microlevel.

#### 3 Materials and Methods

The research purpose was to reveal the attitude of Russian companies to the function of strategic planning, the practice of using its elements, the possibility to apply the concept of strategic planning.

The research objectives were as follows:

- To conduct a survey among chief executives of different enterprises in order to explore what types of strategies are adopted by the enterprises and the extent to which the elements of strategic planning are used in their business practices.
- 2. To develop recommendations on introduction of strategic planning in a modern enterprise.

Ten questions included in the questionnaire for the top executives of various enterprises from different regions, described below, were intended to examine the following aspects:

- 1. Revealing the attitude of top executives from different regions to the planning function.
- Comparing the weight of strategic planning versus operational planning at enterprises that attach importance to the planning function.
- 3. Revealing the need of large, medium and small enterprises in a strategy.
- 4. Identifying the strategy of diversified enterprises.
- Describing the planning period in enterprises with market orientation.

The raw data was collected through expert survey. For data processing the economic methods were used: analytical, economic-mathematical, logical, forecasting methods.

#### 4 Results and Discussion

The survey held in 2019 by random sampling method covered 37 enterprises in the Republic of Crimea: these are different enterprises from Central (Simferopol, Simferopol District), Eastern (Kerch) and Western (Yevpatoria, Saki) economic regions.

The survey encompassed businesses that differ from each other, including companies that operate in the international market, that have market orientation, companies of different forms of ownership, types and images. For delving deeper into the differences of strategic planning in different enterprises and validating the formulated theoretical premises of this research we have classified the companies by the following attributes:

type of activity; size of the enterprise; market orientation; importance of the planning function.

The main characteristics of the surveyed enterprises are provided in Table 1. The surveyed enterprises are characterized by certain intrinsic features that determine specific nature of strategic planning practices.

The enterprises' share in total sample across economic regions is roughly the same: 38.5% in the Central, 36% in the Eastern, and 26.5% in the Western region.

Table 1 Key Characteristics of the Surveyed Enterprises across Crimean Regions

	Enterprises' share in total sample, %								
Crimean Regions	Operating in International Market	Having a Marketing Strategy	Form of Ownership		Size		Corporate Image		
	Market	Strategy	Collective	Private	Large	Small	High	Medium	Low
	Central								
Simferopol	14.3	100	85.7	13.6	50.0	9.1	50.0	48.9	17.1
Simferopol District	15.8	79.3	45.4	52.4	47.2	60.1	47.2	60.1	25.7
Western									
Yevpatoria	34.3	89.2	59.8	47.0	23.5	23.5	35.3	58.8	15.9
Saki	11.5	85.2	75.7	57.9	10.5	73.7	36.8	57.9	15.3
Eastern									
Kerch	47.8	82.9	69.3	40.0	32.5	45.2	31.7	61.0	17.3

Source: compiled by the author

As follows from the data in Table 1, basically, within the sample there are no significant differences in the surveyed parameters from region to region. But specific features of the sample have been revealed: the form of ownership of most surveyed enterprises is collective, except for the enterprises from Simferopol District (which share is 45.4%); most enterprises are engaged in trade, except for the enterprises from Simferopol, a considerable portion of which have diversified their activities (50.2%); the majority of enterprises are small and medium in size, except for the enterprises from Simferopol; the highest number enterprises operating in the international market is located in Yevpatoria, 34.3%, and in Kerch, 47.8%. Almost all surveyed enterprises have orientation towards the market needs, or in other words have a market-driven management.

The research found that a significant number of enterprises place importance on the system of planning and control, their share across the regions varies in a range from 55% to 65.3%. Thus, 52.2% of enterprises in the Eastern region and 67.3% of enterprises in the Central region of the Republic of Crimea believe that success in unstable conditions is to a large extent assured by a good planning system. But in contrast to the identified trend, the value of the planning and control function is recognized by only 27.3% of enterprises in Saki town (where small enterprises account for 75.7%).

The research brought us to a conclusion that the planning function is important for the enterprises in Central and Eastern regions of the Republic of Crimea. The results of the survey among top executives of these enterprises showed that as concerns the weight of strategic planning as compared to operational planning, there is a clear picture and certain differences both between enterprises across different regions and across different groups within the sample, which is natural. Russian enterprises generally give more weight to operational planning, while the share of enterprises that see strategic planning as more important is as follows: in the Central region (25.4% in the city of Simferopol and 28.6% in Simferopol District) it is almost twice as high as in the Western and Eastern regions.

It should be noted that the correlation between importance of the planning function for enterprises and the weight of strategic planning has been revealed. The larger the share of those enterprises that attach importance to the planning function, the larger the share of those enterprises for which strategic planning has more weight than operational planning. Thus, in Simferopol 65.3% of the surveyed enterprises attach great importance to planning while the weight of strategic planning is recognized by 25.4%, among the surveyed enterprises in Kerch the shares were

55.2% and 18.6%, respectively, and among the enterprises in Yevpatoria - 50.9% and 14.8%, respectively.

It was also established that the share of enterprises that recognize the weight of strategic planning is higher among large enterprises as compared to small enterprises. Thus, among large enterprises of Simferopol District, their share in the sample was 48%, and among small enterprises - 18.7%. Analysis of the survey results found that companies that attach great importance to the planning function, recognize the high weight of strategic planning and more eagerly use its elements (mission, strategic goals).

Interesting is the tendency that the prevailing majority of all enterprises (which share varies across regions from 58.7% to 88.7%) define strategy as a driver of success and recognize the need to develop it, though still give preference to operational activities. Moreover, as evidenced by results of the survey of chief executives of different enterprises from the indicated economic regions, large enterprises have a stronger appreciation of the need to develop a strategy and to introduce strategic planning. However, it should be noted that such appreciation is more common for enterprises in the Eastern and Western regions. Yet, paradoxically, among the large enterprises from Simferopol (55%) the share of those that attach great importance to planning and the need for strategy development is much lower (47.1%) than among small enterprises (80.7%). The picture is similar for the enterprises in Simferopol District: only 45% of large enterprises highlight the importance of strategy development, while this number among small enterprises is

In response to the suggestion to choose the most appropriate strategy for the enterprise, the answers of the surveyed executives were distributed as follows (Table 2).

Table 2 Analysis of Strategy Types Chosen According to Survey Results

	Crimean Regions, in %						
Strategy type	Simferopol	Simferopol District	Yevpatoria	Saki	Kerch		
<ol> <li>Strategy of rapid growth</li> </ol>	36.7	64.5	65.7	49.4	61.0		
<ol><li>Strategy of modest growth</li></ol>	36.7	12.8	8.8	46.4	10.5		
<ol> <li>Strategy of liquidation</li> </ol>	=	4.5	=	4,2	-		
4. Integral strategy	26.6	18.2	25.5	-	28.5		
Total	100	100	100	100	100		

Source: compiled by the authors

Thus, most respondents (36.7% - 65.7%) picked from basic strategies offered in the survey the strategy of rapid growth as the most suitable strategy, which is the riskiest. This speaks to the intention of enterprises to expand their activities. It should be noted that the share of enterprises that chose a strategy of modest growth is lower and varies across regions from 8.8 to 46.4%.

Obviously, to some extent the growth is expected to be achieved by moving into foreign markets. This supposition is supported by the finding that in future 50% of the surveyed enterprises from Simferopol, 25% from Simferopol district, 40% from Yevpatoria, 30% from Saki and 60% from Kerch town, plan to operate in foreign markets. Interestingly, only 4.2% of the surveyed enterprises based in Simferopol District and 4.5% of enterprises based in Saki town chose the liquidation strategy. It should be noted that most of these enterprises are small and currently face a rather difficult financial situation.

Since the strategic planning is based on the analysis of external and internal environment of the enterprise, the survey included questions related to this element of strategic planning. Thus, the survey revealed that the majority of companies (95.7% in Simferopol, 89.3% in Simferopol District, 98.1% in Yevpatoria, 88.2% in Saki, 95% in Kerch) perform analysis of their internal environments. Executives become aware of the company's strengths and weaknesses based on the analysis results. As concerns examination of external environment, these enterprises

pay close attention to such external factor as competitors. The survey identified the enterprises from Simferopol, Yevpatoria and Kerch, which monitor the activity of their competitors. Their share is, respectively, 50; 60 and 40%. It should be noted that those enterprises, which find no interest in competitors and believe it is not necessary to study their activities, are few (4.2% to 4.5% across the regions).

As the research results revealed, over the past 10-15 years the operation plans have been developed by enterprises for a very short time span. Thus, annual plans are developed by most surveyed enterprises (94.5% - 97.2%), while the share of enterprises whose planning time span is 6 months varies across regions from 91.4% to 92.2%. At the same time, the share of enterprises with biennial plans or plans for a longer period is rather low and varies across regions in a range from 50.3% to 51.6%.

It has been established that the planning timeframe largely depends on the size of an enterprise and its market orientation. Thus, among large enterprises, the share of enterprises that develop plans for one, two or more years varies across regions from 85% to 90%. Among medium-sized enterprises, this share varies from 54.4% to 86.3%, while among small enterprises the range is from 25.2% to 75.5%. Thus, most of the surveyed enterprises are managed based on a short planning period.

It is also interesting that at the surveyed enterprises with strong market orientation plans are developed for a longer period. The share of such enterprises with a planning period of one year or longer exceeds the average result across all surveyed enterprises. This indicates that enterprises with orientation towards the modern market intend to sustain their operations for a long while, and for this purpose they need a forward-looking strategy.

Analysis of the survey results also made it possible to identify causes that hinder the use of strategic planning by enterprises. According to the respondents, the major cause is instability of the external environment (Table 3).

Table 3 Analysis of Caused Hindering the Use of Strategic Planning in Enterprises, based on the survey results

Responses	Simferopol	Simferopol District	Yevpatoria	Saki	Kerch
Impossible due     to highly unstable     external     environment	81.4	44.5	57.1	67.9	50.9
Inexpediency in current circumstances	17.1	51.4	33.5	31.1	36.8
3. Lack of competent specialists	31.4	34.1	27.6	15.2	22.2
4. Lack of methodological and informational support	17.1	1	21.8	25.8	37.3

Source: compiled by authors

The impossibility to use strategic planning at the enterprise in the unstable environment is predicated by changes in the legislative framework and by economic factors. For the majority of enterprises, the second cause is low confidence of managers in the expediency of strategic planning (the share of such enterprises across regions varies from 44.5% to 81.4%). This cause is obviously related to the problem with sufficiency of material, financial, informational and intellectual resources, as well as to certain psychological barriers among executives of enterprises to innovations.

Indeed, the strategic planning process is very intricate and includes strategic analysis and choice, development of strategic program and assessment of strategies. Each of these stages requires the resources mentioned above. Therefore, it is indeed an overwhelming task for some enterprises (especially small ones) to build a strategic planning framework due to the insufficient capacity. For this reason, the cause ranked third by the respondents is the lack of competent specialists and lack of

methodological support (while in the Central region this cause was chosen more often (31.4%) than in other regions).

In connection therewith, the majority of respondents, being aware of all the benefits of strategic planning and its essential role for the future, noted the usefulness of training to enhance the skills of their staff in the field of strategic management. Such training is in the intentions of 95.9% of the surveyed enterprises in Simferopol, 89.3% in Simferopol District, 98.2% in Yevpatoria, 100% in Saki, 98% in Kerch.

The lack of methodological and informational support also prevents respondents from organizing and implementing a full-blown strategic planning process.

The comparison of the results of this research in this region with the results of similar researches over the past 20 years revealed that the essence of the problems of strategic planning in enterprises has not changed, although a positive trend has been observed over the past five years.

#### **5 Conclusion**

The objectives pursued in the research, which we intended to verify with the help of the survey among enterprises, have been addressed as follows:

- The results obtained in the survey revealed that today in the current business conditions the enterprises use the planning function.
- Present times require the shift in thinking of enterprise executives towards realizing strategic utility of a systemic situational approach to business planning and management, since strategic planning is currently represented only by individual elements of strategy development, and enterprises focus their efforts on immediate problems, i.e., on operational planning;
- Large enterprises utilize strategic planning more than medium and small enterprises;
- Diversified enterprises more often follow the growth strategy;
- The enterprises with a strong orientation towards markets outside the region need a preparatory stage to build up the resource capital essential for strategic planning, which may be achieved based on the organizational principles laid down below.

For intellectual capital building:

- Improve the qualifications of staff in the field of strategic management;
- Master the methods of data analysis, diagnostics of business environment and other analytical tools of a system of strategic management;
- Encourage staff through development of their creative thinking to achieve long-term goals of the company and acquire the skills of strategic analysis and development of a strategy.

For material capital building:

- Provide modern computer equipment to the business units;
- Provide modern telecommunication facilities to the company's functional units, counteragents and customers.

For informational capital building:

- Monitor external and internal environment of the enterprise;
- Systematize risk management databases;
- Create electronic documents for analyzing information about the factors of external and internal environment;
- Introduce digital database platforms and adopt methods for processing statistical data on external and internal environment.

For the modern enterprises geared up for a long-term success in the market, strategical planning is absolutely essential, and as demonstrated by results of this research, the companies of any size should aim for establishing a sustainable and long-term system of strategic planning.

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#### **Primary Paper Section:** A

Secondary Paper Section: AE, AH

## MODERN TRENDS OF VIRTUAL LEARNING ENVIRONMENT: MASSIVE OPEN ONLINE COURSE

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Abstract: This paper examines the problems associated with a virtual learning environment that facilitates the development of both personal and professional qualities of a person. Virtual environment is considered as a communicative space conducive to the advancement of information technology and enhancement of electronic communication skills and as an alternative ground for fulfilling pedagogical potential of massive open online courses. The authors in a structured manner describe the major modern trends in the global education space, in the field of education digitization, growth of distance education services and look into the associated prospects and risks with a focus on the personality development of a professional.

Keywords: massive open online course, virtual learning environment, information and communication technologies in education, scheme of informational support for youth, digital education.

#### 1 Introduction

Modern researchers of reforms in the field of education emphasize that due to the impact of globalization, expectations of the majority of global population are levelling out (Akvazba et al., 2018). In the world of rapidly developing technologies, a traditional approach in the field of didactics is gradually overshadowed; profound changes occur in the teaching approaches at all levels of education in response to the major call of the digital age for continuity of education and lifelong learning.

One of the phenomena radically transforming the modern society is the Internet (Akvazba et al., 2019). As an object of scientific research, the Internet has grabbed attention of modern researchers, because, on the one hand, it is an indispensable and essential attribute of our society today, and on the other hand, it is a constantly changing communication medium, especially popular with the youth (Uvarov, 2008). This is clearly attested to by the following: Internet usage continues to grow day by day; Internet becomes a medium for the fulfillment of desires, a new communication space. Modern researchers point to the fact that virtual communication is beginning to prevail over real face-to-face communication (Khutorskoy, 2008). It is the immense growth of the Internet space that opened up possibilities of distance education in a new format.

A model of virtual education includes the learning environment, which means a system of distance and intramural education. Distance learning, i.e. delivery of education to students at a distance with educational materials developed and structured by educational institution, is a topic that creates relentless interest among popular and business press. In particular, MOOCs (Massive Open Online Courses), which are open online courses that allow unlimited participation, and SPOCs (Small Private Online Courses) are said to have revolutionized universities and the corporate education landscape (Kaplan & Haenlein, 2016). The use of distance technologies has expanded the boundaries of face-to-face education with remote materials and professional consultations made widely available. The main goal of virtual education is to guide a person toward their destiny and life purpose.

Teachers and heads of educational organizations should continuously be looking for ways to self-improve by embracing advanced technologies in their activities in order to make educational content relevant and effective in the years to come, and in order to fit into the contemporary global education system of a brand new design (Akvazba et al., 2017).

Pursuant to Resolution N 1642 dated 26.12.2017 On Approval of the Russian Federation State Program "Development of Education" (2017) a goal was set, by 2018, to create conditions in the Russian Federation conducive to fostering the quality of and to enhancing the opportunities for continuous education accessible for all categories of population through development in Russia of a digital learning space, and, by the end of 2025, to raise the number of educational organizations offering online courses to 11 million. This is the document that at the legislative level in the Russian Federation has spurred the growth in a number of online courses on disciplines (modules) included in the educational program, which was a response to the requirement to encourage and boost self-organized cognition, cognitive curiosity, and ability to independently plan, perform and monitor the outcomes of the learning process.

#### 2 Literature Review

The second millennium brought to the humankind an electronic computer technology that has pervaded every aspect of our lives (Akvazba et al., 2018; Strielkowski & Chigisheva, 2019). Its advancement led to the advent of information technology that may be described as a process employing a set of means and methods for processing and transmitting primary information to obtain information of a new quality on the state of a certain object, process or phenomenon (Paschenko, 2013). Substantive is also the fact that information technology has a capacity to sustain students' interest by original presentation of material, thereby invigorating their educational activity and holding their interest. The information technology concept is often put on a par with such a concept as computer technology: these terms are often used interchangeably as synonyms (Petukhova, 2013).

A.V. Khutorovsky (2008) believed that learning environment is vital to personal development. V.A. Yasvin asserted that learning environment is a vehicle for rendering influence on and a prerequisite to the personality development according to a predefined pattern (Paschenko, 2013). Information and communication technologies should enable effective interaction between a teacher and a student, including the learning process management (Uvarov, 2008; Soltovets et al., 2019). Virtual learning environment helps to connect many participants of the educational process, use verbal and non-verbal means of information, helps to choose a language of communication, and convey feelings and emotions, which in turn is an effective communication technology.

Virtual spaces of educational institutions and Internet resources are combined to form an open virtual learning environment - an information space for interaction between participants of the educational process enabled by information and communication technologies that include various computer tools used to manage the content of the learning environment and communication between its participants. Virtual learning environment is an intricate self-adjustable (behavior correction) and self-improving establishment of effective interconnection) communication system that serves to maintain connection between participants. A peculiar feature of this system is that it is constantly changing to maintain stability of the participants' behavior as they accrue the experience of interaction. Looking forward, education will evolve and a transition will occur from a closed education model to the open one.

Today, students get access to a virtual learning environment, which becomes an essential element of education (Mamedova, 2016), an extensive database that allows them to improve their abilities through self-directed learning by benefiting from popular webinars, video lessons and guides available in different languages of the world.

The emergence of Massive Open Online Courses (MOOC) delivered in the Internet environment paves a way towards a free

and mass access to the quality training courses without geopolitical confinement, regardless of the learner' status or health limitations.

Following the emergence of open educational resources and the Open Education Movement, the term MOOC first appeared in 2008. Since then, MOOC has become a kind of label for many newly launched online courses offered by universities, private educators and businesses (Yuan et al., 2008).

Massive Open Online Course (MOOC) is a web-based course with interactive participation and open access, one of the most effective implementation forms of distance education technologies (Guschina & Mikheeva, 2017). Over a very short time, massive online courses have rapidly spawned (Solodov et al., 2018). Today the following models have been distinguished (Lebedeva, 2005; Levin, 2001): a so-called cMOOC represents the embodied idea of Connectivism, i.e. involves finding a solution through collaboration between students and teachers, their joint work for refining and updating the presented information, thus being a sort of a learning network (the training purpose in such courses, as a rule, is defined by a student) (Gavrilov, 2014); xMOOC has a clear rigid structure and, as a rule, is meant to stimulate independent learning (a student masters the course following a trajectory predetermined by a teacher), has a clear design and a precise timetable, certain checkpoints to be reached at a specific time (the training purpose is defined by a teacher) (Karasik et al., 2013); task-based MOOC is a course comprised of the tasks that may be approached in various ways and which solutions may take different forms, tasks can be done by trainees on their own or collaboratively with other students. A student is offered either to choose a method for solving a task or to enjoy an absolute freedom of action that may flourish into the entire project (Sakoyan, 2013). This is an integrated MOOC model.

According to Ebner M., Lackner E., Kopp M. (2014), MOOC is a trendy phenomenon in electronic education.

Much attention is paid to understating the teacher's role in implementation of MOOC, or rather in its creation and development; in particular, J. Ross, S. Sinclair, J. Knox, S. Bayne, H. Macleod (2014) have analyzed the role of a teacher in MOOC, which, in their opinion, differs significantly from the functions performed by a teacher in the traditional learning process. Depending on the type of MOOC, a teacher may act as a trainer, a content supervisor, training moderator or facilitator.

A number of works are devoted to the practical aspects of MOOC development (Solodov, 2016), such as: selection of the most appropriate and relevant type of course; consideration of key didactic, technical and administrative factors; structure of the basic components; pedagogical and methodological constructs of online courses commensurate with the requirements placed on them in the 21st century and based on the principles of critical thinking and cooperation, continuous self-education and teamwork (Guardia et al., 2013).

There are a series of publications analyzing the experience of learning through MOOC (Ebben & Murphy, 2014).

#### 3 Research Methodological Framework

The main purpose of our study was to identify the level of interest shown by students to e-learning resources and the degree of their satisfaction with the quality of provided educational services.

The objectives of our study were, first, to determine whether teachers used distance forms of work and Internet technologies in teaching before introduction of a nation-wide distance learning due to the Covid 2019 pandemic; second, to find out whether learners were aware of the existence of a virtual learning environment such as MOOC, and to reveal their attitude towards MOOC; third, to determine the range of problems faced by trainees in distance learning and their preferences; and fourth,

to unravel whether modern students see MOOC as an alternative to the traditional education.

In the scientific literature, an opinion exists that there is no distinct difference between e-learning and traditional learning. However, most specialists believe that a digital environment offers a new improved version of education, instils a culture and at the same time is impacted by the culture of learning.

In order to reveal the nature of social changes that have occurred with the expansion of the virtual learning environment, to scale up pedagogical communication on the Internet, to study the intrinsic features of interpersonal communication in the global learning network, we have analyzed information on the use of various services in training sessions over the period from 06.04.2020 to 20.04.2020 at the Tyumen Industrial University (Institute of Service and Branch Management).

The research object was young people aged from 18 to 25 years, who are university students and users of social media, and the subject was the attitude of students to the distance learning environment in general, and to MOOC, in particular.

We conducted a survey among the students of Tyumen Industrial University of 1st to 4th years of Bachelor's course and 1st to 2nd years of Master's course of intramural education in online format. Intramural students voluntarily took part in the survey. In total, 1407 forms were completed. These were the students of the Institute of Service and Branch Management (TIU).

The online survey included several questions: 1) Do you like to study remotely? 2) Have your teachers previously introduced distance learning environments and Internet technologies in the teaching process? 3) Which virtual learning environments and virtual services are your teachers using in education? 4) Which virtual learning environments and virtual services do you find most convenient? 5) What is MOOC? 6) Have you selected MOOCs offered for free on the educational platforms during the COVID 2019 pandemic? Please specify which MOOCs you have selected. If your answer is no. Please indicate a reason. 7) Please provide your opinion of the pedagogical content of MOOC you have taken: what is it that you specifically like or dislike? 8) What difficulties have you encountered in distance learning and MOOC? 9) Do you want a distance learning format to persist? 10) Do you see MOOC as an alternative to the traditional forms of education?

#### 4 Results and Discussion

With the help of a questionnaire survey, we found that TIU teachers were vigorously using Internet technologies and virtual educational environments even before the pandemic and the mandatory distance learning.

Teachers actively use electronic messengers (Viber, WhatsApp), vk.com, e-mail, youtube.com, skype, and open Internet resources for education (MOOC, TIU's Open Education Platform) for teaching students in a remote mode, but educon is the basic system.

Analysis of the survey results revealed that the majority of respondents were aware of the existence of such educational resources as MOOC (83%). The rest 18% do not have a clear idea of this particular educational resource, but have experience in distance learning. Today in TIU, the proportion of students mastering disciplines with the help of electronic learning resources amounts to 100%. Clearly, this result is explained by the use of such resources as the university's educational environment (educon), the university's open education platform, and only a small percentage is taken by Coursera (4%) and the National Open Education Platform (7%), which are used as additional resources.

As shown by the practice of implementing the developed modules and undertaking MOOCs, students' speech activities and underlying language skills are not the major difficulties arising in distance learning. The first difficulty faced by the

students was the resource itself. According to the students, their computer skills are not good enough, and this impedes their work with electronic systems.

Virtual learning environments of educational institutions have a considerable potential for restructuring the existing traditional system of education.

A person continuously undergoes professional development throughout the entire life by resorting to various forms and methods of academically organized professional learning, including mechanisms for personal and professional development.

In the students' opinion, massive open online courses have certain benefits as compared to the traditional education: accessibility (territorial, financial, social, by intellectual levels); openness (registration for courses is usually open and you can join them regardless of whether the course has started or not); mass character (the number of students who may simultaneously take the course is unlimited); structured and consistent presentation of material (pedagogical design caters to the structured course content and its adjustment for learning).

The drawbacks of MOOC include: lack of or insufficient interaction with a teacher (semantic barriers); different entry levels of training of course participants (trainees may have different levels of knowledge that they had prior to the beginning of training either in the field of study or related fields, which may make it impossible for some people to complete the course, and make the process of learning uninteresting or too easy for others); inability of a course participant to be self-reliant in studies (self-control and motivation are crucial for learning).

Most of the respondents believe that MOOC should combine alternativeness and integration: this type of education should exist along with the traditional education, be complementary to it and represent an alternative to ensure that environment is competitive.

One of possible applications of massive open online courses can be within the adapted educational programs for students with health limitations.

#### 5 Conclusion

It is characteristic of the modern social and humanitarian scientific thought to explain the existing social phenomena and occurrences. A set of multimedia equipment is able not only to motivate for the process of learning and invigorate the mental activity of students, it also greatly facilitates the absorption of educational material, while developing creativity and making communication with the society easier.

Use of information and communication technologies in the higher vocational education is important also in terms of acquisition of presentation skills and development of electronic communication and remote interaction skills.

Delivery of high quality education to university graduates, future specialists, is the ultimate goal of higher education. The society's transition from industrial to post-industrial stage goes along with the economic revolution, which dictates the need to revise the content and the criteria of the concept of a highly qualified employee. At the same time, the government is grappling with the problem of training such a specialist of a completely new level, who would be capable to successfully address the issues in the country's digital economy in the everchanging environment.

As one of the main social institutions of the world order, education has a direct impact on the lives of people, the level of society development, socio-economic well-being of the country, as well as social stability and mobility.

Virtual learning environment and global information space may be viewed as holding a potential for contributing to one of the main indications of social state and civil society, i.e. equal access to education for all, with the massive open online course today representing one of the most effective and feasible tools to fulfil the need for an alternative educational environment.

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## RESEARCH ON PROFESSIONAL MISCONCEPTIONS OF FUTURE EDUCATIONAL PSYCHOLOGISTS

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Abstract: This paper examines professional misconceptions of future educational psychologists that emerge during their studies at university. The research was carried out in the Mordovian Pedagogical Institute with participation of students whose field of study is Psychological and Pedagogical Education. Analysis of the obtained data helped to determine the common professional misconceptions typical for future educational psychologists, to describe the groups of students differentiated by their ability for pedagogical decentration and their misconceptions about the Child and the Adult positions. The obtained data validated a need in the targeted efforts directed at prevention and correction of professional misconceptions among future educational psychologists during their university studies.

Keywords: professional self-consciousness, professional misconception, ability for decentration, student, interaction, prevention of misconceptions.

#### 1 Introduction

The rapid informational development of the society leads to changes in the requirements for an educational psychologist profession which in many respects is related to the transformation of educational processes at all stages of education. However, changes in the professional self-consciousness of future educational psychologists during their university studies do not always occur quickly, which is due to the existence of inadequate perceptions and stereotypes that hinder the effective implementation of their professional duties in the present-day world.

One of the important objectives of the higher education is to develop a graduate's subjectivity. Within such approach to own education, a future psychology teacher may consciously choose and acquire the activity components that align with their individual goals of professional self-fulfillment. But certain objective and subjective conditions of the university education may create constraints for the development and implementation by a student of their strategy and tactics of professional evolvement. Such factors increase the risk of emergence of various misconceptions in professional self-consciousness. That's why a need arises to examine the specific features relating to the emergence, prevention and correction of misconceptions in the developing framework of professional self-consciousness of a future psychology teacher in order to minimize the professional pedagogical errors and to ensure the use of effective pedagogical solutions in real situations.

However, the research data in this domain are fragmentary which considerably hinders the prevention of acquisition of professional misconceptions during university studies leading to a negative impact on the students' readiness to perform job duties of a psychology teacher in order to reach the education goals. Thus, the growing contradiction between an objective need to identify and address the professional misconceptions of future educational psychologists and the fragmentary information about causes and factors leading to the entrenchment of misconceptions during studies at university increases the relevance of our research.

#### 2 Literature Review

The professional activities of a psychology teacher relate to tackling professional tasks of varying complexity in the ever changing educational space. That's why the process of students' preparation for the job functions of psychology teachers and specialists of social service organizations in the conditions of a pedagogical university has its specific features which are explored in the studies by Anikeeva O. A. et al. (2019), Vardanyan Y. V. et al. (2018), Vinokurova G. A. et al. (2018), Shukshina T. I. (2018), Yashkova A. N., Kalimullin A. M. (2015).

The analysis of psychological and pedagogical literature on the topic under research revealed that presently the following aspects have found reflection in the psychological and pedagogical works: pedagogical myths (Maznichenko, 2019), pedagogical errors (Jozefavichus, 2014), pedagogical illusions (Bederdinova, 2014), pedagogical stereotypes (Slastenin, 2000), pedagogical difficulties (Polyakova, 1983). All the above categories have strong links by a number of common parameters with the professional pedagogical misconceptions.

Professional pedagogical misconceptions are viewed by M. A. Maznichenko (2019) as a component of teacher's professional thinking characterized by stiffness, inadequate perception of reality, inconsistency with the established pedagogical standards, one-sidedness of ideas and sociocultural limitedness. As pointed out by the author, a misconception may lead to various pedagogical errors, myths and illusions.

In our research, we examine professional misconceptions in the context of evolvement of professional self-consciousness of a future psychology teacher. Professional self-consciousness in our understanding reflects the subjective, objective and substantive (result-related) components of the professional competence (Cherneeva, 2000). Within each of the above components various professional misconceptions may arise and undergo transformations, since formation and development of a student as a living individual is an ongoing process.

This research is aimed to explore professional misconceptions of future educational psychologists emerging in the substantive component of professional self-consciousness. Its content is determined by a combination of psychological and pedagogical knowledge and skills in organizing interactions with children with account of their individual psychological features.

Professional misconceptions occurring within this component may also be expressed in the ways of interaction and determination of strategy and tactics of assistance in the leading activity types, as well as in the ways of communication, demonstration of pedagogical centration, etc.

Some scholars whose ideas were reflected in the foreign researches explore various aspects of dynamics and quality of the teacher-student relationship (Britt, 2013; Cornelius-White, 2007; Spilt et al., 2012; Ly et al., 2012; Guzich & Pribega, 2015) that are the precursors of professional misconceptions.

Interaction between the subjects of education is an important component of pedagogical communication which implies a high probability of professional pedagogical errors that may be caused by professional misconceptions of objective or subjective nature

A hallmark of communication, according to E. I. Rogov (2003), is that our attention is transferred from the communication partner to ourselves and the mirror reflections of each other kind of duplicate. That's why the communication engages the following positions of an individual: "Self" as I really am; "Self" as I see myself; "Self" as my communication partner sees me (Rogov, 2003). The same positions may be found in the interlocutor. Communicative errors may occur with respect to

each of these positions if the understanding of this duality is missing or distorted.

G. A. Tsukerman (2006) sees the interaction between a child and an adult when building a zone of proximal development as a place for "generation and formation of such interactions which are conducive to "encountering" (understanding, aligning, transforming) different experiences, different ways to comprehend this experience, different types of mediation, dividing the substance of experience from the emotions arising when living through it". However, with such a diversity of "encounters" an adult is inevitably exposed to various difficulties, errors and misconceptions in perception of a child as a living individual. This is validated in the study by S. V. Zaitsev (1995) who notes that "the adult's direction of the child development process turns into an illusion" (p. 40), since the process of mental development of a child may go according to the child's own coherent development program.

An extensive experience of V. A. Yasvin (2013) in conduction of group trainings for high school students and their teachers "shows the psychological unpreparedness of the latter for positive acceptance of students and real partnership with them. The "parental", often subject-object position of teachers in their relationship with students prevails, which is manifested in either hyper-care or the determination to fully subdue students to the teacher's will". It can be assumed that the teachers involved in this type of activity are guided by certain stereotypes or misconceptions when building the tactics of interaction.

In his research, L. M. Putyato (2001) comes to the conclusion that in communication between a teacher and a student, real understanding of the latter is rarely achieved; it is inhibited by the teacher's stereotypical perception of students through the lens of educational activities, with the perception of a student as a subject of this activity "separated" from the perception of the same student as a personality. Thus, it can be stated that the revealed stereotypes upon which the teachers rely are largely attributable to their professional misconceptions.

According to T. Jozefavichus (2014), timely identification and correction of professional misconceptions facilitates the cognitive engagement of a student through solution of psychological and pedagogical tasks of a problematic nature and induces the student to "consciously create rules" in atypical pedagogical situations. The author notes that if this is not done at the stage of professional pedagogical training, the pedagogical knowledge of students cannot serve as a reference framework for practical pedagogical actions.

At the same time, the survey revealed that the absence of a holistic study of the professional misconceptions of future educational psychologists, which complicates preventive work and amplifies interest to the topic under consideration.

#### 3 Research Methodological Framework

The research purpose was to reveal and describe professional misconceptions of future educational psychologists relating to the substantive component of their professional self-consciousness.

The research objectives were as follows:

- reveal the current professional misconceptions relating to the personality of a preschooler among students whose field of study is Psychology in Education and Social Sphere;
- reveal the personal attitude of future educational psychologists to children;
- explore the expressed misconceptions relating to the interactions within a teacher-student diad.

The research covered 38 third-year students of the Department of Psychology and Defectology at Mordovian State Pedagogical Institute named after M. E. Evseviev whose field of study is Psychological and Pedagogical Education. The respondents were aged 19-20. The respondents included 35 girls and 3 boys. The

time span of this research stage was from September to October 2019

For achieving the first objective, we used a method "Children in the Tutor's Eyes" (Petrovsky et al., 1993), which was modified by us in the part of child's personal qualities offered for evaluation.

The list of children's qualities was compiled, and on its basis the generalized images "A child in whom I see a personality", "A child who irritates me", "A child who is the same as others", "A child who is different from others" were created.

Students were asked to complete the table, evaluating each quality with scores ranging from -3 (if this quality is not expressed at all) to +3 (if this quality is expressed in a child at the highest degree).

In order to reveal the personal attitude of future educational psychologists to children in our study, we used the methodology of S. V. Zaitsev (1995), which aim is to assess the ability for pedagogical decentration, the structure of teachers' attitude to children

The descriptions by students of pictures of three types from the Child and the Adult positions were recorded, and it was also traced whether in their descriptions they make a conscious differentiation between these positions and why. Each student also described the distinctive psychological features of an adult and a child.

For achieving the third objective of the research, we used the materials developed by J. L. Kolominsky (Rean & Kolominsky 2000). Students were offered a list of pedagogical atypical situations, and asked to express their attitude to each situation (agree - disagree).

Quantitative processing of results included giving points for each agreement with the expressed misconception. The resultant scores were used to divide students into three categories characterizing different level of expression of professional misconceptions: under 3– low; under 6 – medium and under 13 – high.

#### 4 Results and Discussion

The method "Children in the Tutor's Eyes" (Petrovsky et al., 1993) helped to yield the following results. Using Pearson's correlation method, we revealed a correlation between the images offered for ranking. It was found that for some students (38%) the correlation between the images "A child in whom I see a personality" and "A child who is the same as others" is 0.7. This fact indicates that students are mostly oriented towards an "average" child, some impersonal standard. However, it is generally known that there is no average child, each child is beautiful in his/her individuality. So, already at the formative stage of professional self-consciousness students have misconceptions with regard to personal characteristics of preschoolers.

The correlation (0.67) has been revealed between the images "A child who irritates me" and "A child who is different from others". In other words, the intolerance of future educational psychologists is projected on children who do not correspond to their ideas of an "average" child. Answers of students (43%) revealed that children showing any personal distinctness in their behavior require increased attention to themselves, distract the teacher's from the group of children, and sometimes their behavior leads to pedagogical impotence.

The obtained results indicate the existence of professional misconceptions in this sample of future educational psychologists regarding understanding and acceptance of the child's personality.

The results obtained using S. V. Zaitsev's method (1995) helped to distinguish 5 groups of students differentiated by their ability

for pedagogical decentration and their misconceptions about the Child and the Adult positions.

- The centered identification group characterized by projection of an "adult" behavior model on a child and expectation of an identical response;
- The centered detachment group also determines the child's characteristics from the position of adulthood and denies the child's ability to perform analysis when describing events;
- 3. The pseudocentered group characterized by an adequate real description of pictures from the "Child" position identical to the description from the "Adult" position. In this group, descriptions of two types have been observed, in which students attributed specific traits of a child to the "adult" descriptions due to the peculiarities of their own character, which preserved the features of a child;
- 4. The potentially centered group is characterized by inadequate description of pictures from the "Child" position. It should be noted, however, that students who demonstrated this model of behavior were not consistently sticking to it in all tasks of the experiment, but often showed pseudo-decentration. This testifies to the fact that these students preserved in their character some childish traits, due to which they involuntarily get close to the real descriptions of children of older preschool age when interpreting the pictures from the Child or "I am myself as a Child" position;
- 5. Students of the real-centered group give an adequate, but not always complete assessment of descriptions specific to a child, while noting the substantial differences in the descriptions by a child and an adult. Their comparative analysis of age-specific features typical for an adult and a child included more dimensions and was not reduced to "more/ less" characteristics. For example, if a student mentioned that a child has less knowledge as compared to an adult, it was immediately noted that the child's imagination is more loose and not chained by stereotypes.

Analysis of the data collected using the method of S. V. Zaitsev shows that the first three groups of students who took part in the research displayed certain misconceptions relating to understanding and evaluation of the Child position.

Observation of students' activities during their internships revealed that in communication with a child they mainly focused on the content of conversation, while almost neglecting the aspects of interactive and perceptual engagement with the child. As pointed out by S. V. Zaitsev (1995), "preschoolers often focus not on what an adult says, but on how it is said or what the nonverbal message is". Thus, the students' lack of knowledge about the mechanism of acceptance and understanding of the other gives rise to misconceptions about the child's level of development and wrong tactics of interaction with the child.

The analysis of data acquired using the method of J. L. Kolominsky (Rean & Kolominsky 2000) showed that in the studied sample 40% of students have a medium level of expression of professional misconceptions, 12% of future educational psychologists showed results corresponding to a high level and 48% of respondents - to a low level.

The most common misconceptions relate to the following statements: if an error is made, it should be concealed so that students' opinion of the teacher does not get worse; teachers may not show their professional incompetence in any matter.

Thus, the experimental data obtained in the research indicate the professional misconceptions arising in the substantive component of the professional self-consciousness of future educational psychologists.

#### 5 Conclusion

In our research, we proceeded from an assumption that professional misconceptions should be examined in the development context of professional consciousness of future educational psychologists. On the basis of this assumption, we conducted an experimental study of professional misconceptions

of future educational psychologists relating to their psychological and pedagogical knowledge and skills in organizing interactions with children with account of their individual psychological features.

The study identified the current misconceptions of future educational psychologists relating to the personality of a preschooler. Also, the groups of students were differentiated by their ability for pedagogical decentration and their misconceptions about the Child and the Adult positions, the levels of their misconceptions relating to interactions within a teacher-student diad were examined.

The results of the research showed that a fairly large group of students have professional misconceptions that hinder the effective interaction in the educational process. This fact highlights the need in the targeted efforts directed at prevention and correction of professional misconceptions among future educational psychologists during their university studies.

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# INFORMATION COMPETENCY OF STUDENTS AS A UNIVERSAL META-SUBJECT ECOLOGICAL COMPETENCY FOR INTERACTING IN THE VIRTUAL EDUCATIONAL ENVIRONMENT OF UNIVERSITIES

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Abstract: The paper emphasizes the relevance of the process of development of the student information competency within the advancing virtual educational environment of higher educational institutions. Approaches to defining the phenomena of "information competency", "ecological competency", "digital image", and "virtual educational environment" in the era of the digital paradigm of education being established are described. Attention is paid to setting up the virtual educational environment of higher educational institutions based on modern resources, online projects, and platforms. The leading research methods are analysis and summing up of methodological approaches to studying the said phenomena. The materials of practical value for Master and PhD students, university teachers, education researchers.

Keywords: information competency of students, meta-subject nature, ecological competency, digital hygiene, digital image, virtual educational environment.

#### 1 Introduction

In the era of the digital paradigm of education getting established, a new option of educational information interaction on the subject-to-subject basis via digital technologies emerges – the virtual educational environment as an ecosystem.

Within the contemporary context, the virtual educational environment as a phenomenon is filled with new meanings which guide the students to entering the world of culture through "absorbing" universal and professional competencies contributing to their social mobility and stability in the labor market. It is the information competency that is one of such universal, meta-subject, key ecological competencies.

Based on analyzing the studies of both Russian and foreign scientists in the focus areas of digital transformation, digital paradigm of education, the virtual educational environment, and the information competency (Kondakov, 2019; Karakozov & Uvarov, 2016; Polichka et al., 2019; Noskova, 2011, 2014; Weindorf-Sysoeva, 2012), the authors are convinced of the fact that the information competency of students has to excel the current nomenclature of competencies - in order to be proactive towards the situation. The development of the student information competency as a university process allows "teaching them to study" in the virtual educational environment. This includes being ready for change, for working with large integrated data streams, following the principles of digital hygiene as information security rules. It is also about maintaining the profound and unmistakable "digital image", trends of self-education, and self-improvement of their own information competency levels.

Within this context, for this research, it is important to understand that there arise new values and attitudes to the process of development of the student information competency at higher educational institutions. They emerge under the effect of the digital paradigm of education being established and the university virtual educational environment being set up.

Studies by a number of Russian and foreign scientists (Khutorskoy, 2003; Tabachuk, 2016, 2019; Ermakov, 2008; Zakhlebniy & Dzyatkovskaya, 2020; Kondakov, 2019; Noskova, 2011, 2014; Weindorf-Sysoeva, 2012; Mosquera, 2017; Kerimbayev et al., 2019) are of interest in this context. In them, the in-depth meanings of such phenomena as "information competency", "ecological competency", "digital hygiene", "digital image", and "virtual educational environment" are considered. This gives evidence about the process of

development of the student information competency being relevant within the advancing virtual educational environment of higher educational institutions.

#### 2 Literature Review

Many contemporary studies deal with rethinking the phenomenon of "information competency of students" within the context of the digital paradigm of education being established.

The digital paradigm of education implies the anthropocentric approach being fulfilled in a high-tech infrastructure (the virtual educational environment as an ecosystem of interaction orienting to a person's individual educational paths). It also involves a new level of fulfilling the possibilities granted by digital educational technologies for automating the processes of working with information performed by subjects (digitization of education).

Within implementation of the digital paradigm of education, the virtual educational environment is developed.

As of today, the university student information competency turns into one of the universal and meta-subject ecological competencies of interaction in the virtual educational environment of higher educational institutions.

The universal and meta-subject nature as a characteristic of the information competency is emphasized in the works of A. V. Khutorskoy (2003), A. E. Polichka, O. A. Malykhina, I. V. Karpova, and N. P. Tabachuk (2020). By meta-subjectness, these authors mean thinking through the crucial notions of educational subjects; the educational activity of re-discovering knowledge with various study materials; the learners' reflexive activity; training in the summarized methods of working with any subject material – notions, diagrams, models; association with life situations. Such aspects of understanding the student information competency as a meta-subject one move it up to a new level in interacting within the university virtual educational environment as an ecosystem.

The information competency as the ecological competency is associated with students' aspiration to interact in the virtual educational environment in the ecologically favorable and safe conditions.

Studies related to the ecological competency as a phenomenon of the modern reality are detailed by D. S. Ermakov (2008), A. N. Zakhlebniy, and E. N. Dzyatkovskaya (2020). They note that the ecological competency is a need of security, mastering the ecologically safe techniques and methods of life activity.

The information competency as the ecological competency manifests itself within interaction in the university virtual educational environment based on the principles of digital hygiene.

Digital hygiene as rules of information security is considered in works of A. M. Kondakov (2019) and T. V. Sukhorukova (2020). When detailing the phenomenon of "digital hygiene", these authors emphasize the following principles: communication security, the security of devices, and the security of information.

Digital hygiene influences the formation and maintenance of one's profound and unmistakable "digital image".

A. M. Kondakov (2019) notes that "digital image" or "digital identity" is an entire set of data left by a person in the Internet, the person's digital projection (footprint) in the Web. He emphasizes that it is forming an individual's digital identity that has to be taught today.

It is based on the principles of digital hygiene with a focus on developing the student information competency and forming the profound and unmistakable "digital image" that the system of interaction in the virtual educational environment of higher educational institutions has to be built.

Modern approaches to studying the virtual educational environment are described in works of many scientists (Losev et al., 2019; Lubkov, 2006; Kataev M. Yu. & Kataev S. G., 2014; Noskova, 2011, 2014; Weindorf-Sysoeva, 2012; Mosquera, 2017; Kerimbayev et al., 2019; Soltovets et al., 2019). They are associated with identifying its didactic potential, strategic and tactical role in the process of learning, with modeling the virtual educational environment, and with finding out its parameters that ensure the efficiency of communication between participants of the educational process.

In studies of the listed authors, one can note the unity of views on the priority of developing the students' information competency within the university virtual educational environment.

#### 3 Research Methodological Framework

The object of the research is the process of development of the information competency in the new conditions.

The subject of the research is the student information competency as the universal meta-subject ecological competency of interaction in the virtual educational environment of higher educational institutions.

The objective of the research consists in giving a more precise understanding of the phenomena of "information competency", "ecological competency", "digital hygiene", "digital image", and "virtual educational environment" in the era of the digital paradigm of education being established and in identifying their interdependence.

According to the research subject and objective, the following tasks were accomplished.

- Describing and analyzing the methodological approaches to studying the said phenomena.
- Substantiating the universality and meta-subjectness of the student information competency as the ecological competency of interaction in the virtual educational environment of higher educational institutions.
- Identifying the strategic and tactical role of the virtual educational environment in developing the information competency of students.
- Singling out the principles of digital hygiene to be followed for ensuring the information security in the university virtual educational environment while maintaining the students' profound and unmistakable "digital image".
- Highlighting modern resources, online projects, and platforms for setting up interaction in the virtual educational environment of higher educational institutions while orienting to development of the information competency of students.

#### 4 Results and Discussion

4.1 Approaches to Studying the Phenomena of "Information Competency", "Ecological Competency", "Digital Hygiene", "Digital Image", and "Virtual Educational Environment"

This research relies on considering the essence of the phenomena of "ecological competency", "digital hygiene", "digital image", and "virtual educational environment" that are associated with developing the student information competency.

In the authors' understanding, the information competency of students is the universal meta-subject ecological competency of interaction in the virtual educational environment of higher educational institutions. Within this context, D. S. Ermakov's approach (2008) to comprehending the ecological competency phenomenon is of interest. According to him, this is the need of self-actualization and fulfillment of one's internal potential of the ecological consciousness.

When describing the ecological competency, D. S. Ermakov (2008) emphasizes the point that it can be developed provided that associations and dependencies within ecosystems are explained, and students master ecologically safe techniques and methods of life activity, ensuring communication security, the security of devices, and the security of information. According to the authors, it is the university virtual educational environment that is such an ecosystem maintaining the security functions. Within this environment, the process of developing the information competency as the ecological competency unfolds.

E. F. Losev, R. A. Ganieva, and N. R. Poluyan (2019) note that the basis of the virtual environment built upon the systemic approach grounds is made up by educational resources. It is the modern resources, online projects, and platforms that include students into the activity of forming the profound and unmistakable "digital image". In their earlier studies, the authors have analyzed the approaches to understanding the phenomenon of students' "digital image" as an author's approach to self-fulfillment in the real and virtual world (Tabachuk et al., 2020).

Leonardo Herrera Mosquera (2017) observes that students sense the inclusion into the digital era, as higher educational institutions implement the virtual educational environment.

Nurassyl Kerimbayev, Nurdaulet Nurym, Aliya Akramova, and Saule Abdykarimova (2019) discuss the influence of such an environment on the interactive communication of students and teachers

R. A. Lubkov (2006) views the virtual educational environment as a united information and educational space where the principles of pedagogical system of the new educational environment act. The author emphasizes the open nature of this environment.

M. Yu. Kataev and S. G. Kataev (2014) highlight personalization (remoteness and the possibility of individual training) as the main parameter of the virtual educational environment.

In her research, T. N. Noskova (2014) brings a focus on the fact that the virtual educational environment is a new "tier" of the educational environment, a kind of "superstructure". In it, the course of the process changes, and its new qualitative aspects are manifested: the need of shifting the center of educational interaction from the teacher to the learner; the need of "seeing" the learners via this environment by the "traces" of their information and communication actions registered in it; the readiness for forming the advanced ICT-competencies.

M. E. Weindorf-Sysoeva (2012) stresses that one's lacking the virtual educational environment competency limits one's professional capacities.

When characterizing the virtual educational environment, both T. N. Noskova (2011) and M. E. Weindorf-Sysoeva (2012) focus the attention on the need of developing the information competency of students and forming their profound and unmistakable "digital image" or "footprint".

In the authors' understanding, the virtual educational environment of higher educational institutions is the ecosystem featuring the following:

- educational information interaction on the subject-to-subject basis while orienting to students' individual educational paths;
- relying on the "digital hygiene" principles;
- students' entering the world of culture through "absorbing" universal and meta-subject competencies contributing to their social mobility and stability in the labor market. It is

the information competency that is one of such universal, meta-subject, and key competencies.

# 4.2 Universal and Meta-Subject Nature of Student Information Competency as the Ecological Competency for Interacting in the Virtual Educational Environment of Universities

The universal nature of the information competency of students is determined by the range of its components: the team work culture, the culture of presenting the results of project activity using digital technologies, the culture of managing one's activity, the culture of working with information, and the culture of presenting the information in a digital format, which characterizes the information competency as a meta-subject one, too.

Meta-subjectness as a feature of the information competency of students details its aspects as follows. First, this is the students' ability to self-assess their own information competency development level, to make decisions, and perform conscious choice in their cognitive and learning activity. It also involves finding a common solution which will meet everyone's interests within interaction in the university virtual educational environment and knowing universal methods of working with information and the Internet-based sources. Some other aspects are the communication activity management in the virtual educational environment based on the "digital hygiene" principles, knowledge of universal methods of self-presenting in the virtual educational environment in a positive manner, and the conscious readiness for cultural rise in the world of "the digital".

It is the development level of basic abilities – thinking, understanding, communicating, reflecting, and acting – that has to be considered as the meta-subject result in the process of development of the student information competency.

The information competency of students as the meta-subject result is formed in the virtual educational environment with particular regularities, principles, objectives, and means.

# 4.3 Building the Interaction System in the Virtual Educational Environment of Universities Relying on Digital Hygiene Principles for Maintaining the Profound and Unmistakable "Digital Image" of Students

V. I. Blinov, M. V. Dulinov, E. Yu. Esenina, and I. S. Sergheev (2019) in their scientific work "Draft didactic concept of digital professional education and training" highlighted the factors, regularities, objectives, principles, and means of the digital paradigm of education.

Let these provisions be extended to the system of interaction in the virtual educational environment of higher educational institutions aimed at developing the information competency of students. Then, the factors generating a need of building the system of interaction in this virtual educational environment are the following: digital generation, new digital technologies, and digital economy.

As for regularities of building the system of interaction in the virtual educational environment, these are: a higher role of independent work in learning, a greater part of active and interactive forms and methods of training, a higher extent of structuring of the learning activity, and eye-mindedness prevailing as a type of thinking.

The principles of personalization, flexibility and adaptivity, successfulness in training, the principles of training in cooperation and interaction (the interactivity one), orientation to practice, and polymodality (multimediality) are the major principles of interaction in the university virtual educational environment that ensures developing the information competency of students.

The digital hygiene principles to be followed for ensuring information security in the virtual educational environment of higher educational institutions while also maintaining the students' profound and unmistakable "digital image" are: understanding the value of the safe lifestyle, interiorizing the rules of individual and collective safe behavior in the virtual educational environment, using information proceeding from norms of ethics and law. They also include building a positive attitude to discovering the world of "the digital" during the learning and cognitive activity and preventing the Internet-addictive behavior in students. The authors of the paper detailed these contexts in their earlier studies (Tabachuk et al., 2018, 2020)

The objectives (expected results) are as follows. First, the students' readiness for continuous change is developed, and so are their internal borderline between the virtual and the real world as well as their ability to differentiate these worlds and the responsibility types appropriate for them. Next, the culture of network-based communication, the digital segment of the ecological culture is formed which can be conventionally termed "digital hygiene skills", and the ability to analyze information critically is developed. In these aspects, the strategic and tactical role of the virtual educational environment of higher educational institutions is detailed.

The main means for building the system of interaction in the virtual educational environment that ensure achieving the set objectives are the personalized educational process, digital pedagogical technologies, modern resources, online projects, and platforms.

## 4.4 Modern Resources, Online Projects, and Platforms for Setting up Interaction in the Virtual Educational Environment of Universities

In the authors' earlier studies, they noted some online projects and platforms for developing the information competency in students and forming one's positive "digital image" in conditions of digital transformation within which subject-to-subject interaction is possible in an interactive form based on mental activity (Tabachuk et al., 2020).

As of today, this range of resources can be supplemented with the following systems for organizing interaction in the university virtual educational environment:

- Moodle as an open system for developing the culture of managing one's activity, the culture of working with information:
- Bandicam and LearningApps.org as resources for developing the culture of presenting the project activity results using digital technologies;
- Whiteboardfox is an interactive board for developing the team work culture;
- Quizizz as a platform for holding educational flash-based games for developing the team work culture;
- StoryJumper as a system for creating interactive books for developing the culture of presenting information in a digital format;
- Zoom and TrueConf as resources for organizing video conferencing and forming the students' profound and unmistakable "digital image".

On balance, the use of the said systems and resources in the virtual educational environment of higher educational institutions contributes to developing the information competency in students as the universal meta-subject ecological competency.

#### 5 Conclusion

In conclusion, let it be noted that the relevance of research in this focus area is substantiated by establishment of the digital paradigm of education, by the virtual educational environment of higher educational institutions advancing, and by a new compulsory educational meta-subject result and attribute of a human of the 21st century – the information competency – being outlined in the sphere of education.

Based on analyzing the methodological approaches to studying the phenomena of "information competency", "ecological competency", "digital hygiene", "digital image", and "virtual educational environment", it has been found that the problem space associated with the understanding of these phenomena is a new and little explored one.

According to the research results having been studied by the authors, a group of Russian and foreign scientists focus their attention on the fact that student information competency has to excel the current nomenclature of competencies and to be proactive towards the situation.

As understood by the authors, the information competency of students is the universal meta-subject ecological competency of interaction in the virtual educational environment.

The universal and meta-subject nature of the student information competency has been substantiated through the range of its components.

The strategic and tactical role of the virtual educational environment in developing the student information competency has been identified through the lens of factors, regularities, objectives, principles, and means of digital hygiene.

The paper outlines modern resources, online projects, and platforms for setting up interaction in the virtual educational environment of higher educational institutions with a focus on the development of students' information competency.

The materials presented in the paper can be of practical value for master degree students, PhD students, university teachers, and teachers of other educational institutions organizing the implementation of the digital paradigm of education.

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#### **Primary Paper Section:** A

Secondary Paper Section: AM, AN

## TRAINING A SPECIALIST IN THE FIELD OF UPBRINGING FOR DESIGNING AN INDIVIDUAL ROUTE

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Abstract: The article considers the problem of training a specialist in the field of upbringing for designing an individual route. The authors determine the possibilities of additional professional education program for qualification enhancement as a means of preparing for this kind of activity. Using the possibilities of this program as a means of training specialists in the field of upbringing allows to immerse into professional environment through designing of the individual route for students belonging to different categories. The article presents the results of the program introduction "Technologies for personalized education: designing and maintaining an individual route" developed by the authors and the outcomes of the pedagogical experiment based on it.

Keywords: design, individual route, qualification enhancement, personification, support, professional standard, readiness of the specialist, educational technologies.

#### 1 Introduction

In the current sociocultural situation, significant success in life is achieved by people who are able to plan and realize their personal and professional development, own career growth, the process of their physical, moral, emotional and spiritual self-improvement. All these peculiarities actualize the need for training teachers in the aspect of developing individual educational and upbringing routes, creating appropriate conditions in the open educational space and motivating students to implement them.

The problem of upbringing personification as a whole and the question of development and implementation of technology connected with the individual upbringing paths are considered at two levels: a targeted achievement of personal upbringing results and formation of the productive mechanism for person's upbringing. The issue of preparing a teacher for designing individual student routes is reflected in the requirements of the professional standard "Specialist in the field of upbringing".

In the context of the labor function "Organization of social and pedagogical support of students in the process of socialization", the need for knowledge of pedagogical support technology by the students when designing an individual route and in self-determination situations is indicated. In the framework of labor function "Organizational and methodological support of upbringing activities", a special attention is paid to the knowledge of the forms and methods of organizational and methodological support for students in designing an individual route in collective activity and self-education; in relation to the labor function "Planning upbringing activities with a group of students", the skills that motivate students to design an individual route as part of a joint activity program and provide pedagogical support for students to implement individual routes in collective activity are considered as necessary.

Based on this, the priority task of training a qualified specialist in the field of upbringing is to promote the mastery of design competence, which will ensure the formation of readiness to carry out the design of an individual route, create conditions for the implementation of a personified approach to students in the future professional activities, develop skills in creating success situations for each child, work effectively on the development of their interests, abilities, create conditions for successful socialization and formation of positive qualities and personality traits

#### 2 Literature Review

Addressing the problem of teacher training is not a new aspect in the psychological and pedagogical literature. Researchers are actively studying the methodical and methodological issues of readiness formation by the project activity specialists in the field of upbringing, practical aspects of designing various types of individual routes.

The issues of practice-oriented training of teachers are updated in modern studies (Kuznetsova et al., 2016; Parshina et al., 2019; Vinokurova et al., 2018a; Zetkina et al., 2018); methodical and methodological aspects of the process of future teachers' training in modern conditions are widely researched (Pozhidaeva, 2018; Vinokurova et al., 2018b; Tatiyanina et al., 2018; Shukshina et al., 2018); conditions and technologies for effective training of specialists in the field of education and other fields, organization peculiarities of the educational process are often determined (Kutnyak et al., 2019; Vinokurova et al., 2018c; Spirenkova & Oskina, 2018; Kudashkina et al., 2018; Belyaeva et al., 2018).

Some works focus on the conditions for developing optimal individual routes for students of various educational levels (Tutoring for Gifted High School Students, 2020; Innovative Technologies for Upbringing..., 2012; Okolelov, 2015; Kolechenko, 2006; Kulebyakina, et al., 2018); technological aspects of designing individual routes for students of different categories are being developed (Antonova et al., 2019; Belova et al., 2018; Vasilkina et al., 2018); the issues of using various techniques and tools in the design and implementation of individual student routes are also addressed (Vinokurova et al., 2018d; Mikhalkina et al., 2018; Lipatova et al., 2017; Vasenina et al., 2018). The literature study confirms the relevance and significance of the problem dealing with teacher training for designing an individual route.

#### 3 Research Methodological Framework

The aim of the article is to determine the potential of additional professional education program for qualification enhancement as a means of training specialists in the field of upbringing for designing an individual route.

It was achieved by solving a number of task that aimed at:

- generalizing the theoretical foundations of training specialists in the field of upbringing for designing an individual route;
- developing and implementing additional professional education program into educational practice;
- determining the effectiveness of this new program as a means for preparing a specialist in the field of upbringing to design an individual route.

The experiment was conducted during 2019-2020. The experimental base of the research was Mordovian State Pedagogical Institute named after M.E. Evseviev. 120 teachers participated in it, carrying out upbringing functions at all levels of the educational system and falling within the scope of the professional standard "Specialist in the field of upbringing".

The study was carried out using theoretical (analysis of psychological and pedagogical literature, synthesis, generalization, systematization of the material on the problem of training a specialist in the field of upbringing for designing an individual student's route, forecasting, comparison, design) and empirical (pedagogical experiment) research methods.

#### 4 Results and Discussion

To solve the first task, the analysis of the information sources close to the research theme was conducted. We found that readiness of a future specialist in the field of upbringing for project activities should be understood as a dynamic, integrative personal characteristic resulting from the professional training and personal growth of a specialist in the field of upbringing, providing him/her with the ability to correctly predict the process of upbringing, based on the accumulated professional knowledge, skills, experience and the corresponding level of personal development. As a result of the analysis, the requirements for the personality of a specialist in the field of upbringing who is capable of high-quality implementation of project activities have been identified; the structure and criteria of readiness for the implementation of this type of activity, pedagogical conditions of practice-oriented training of a future specialist in the field of upbringing and project activities have also been considered.

To solve the second research task, a pedagogical experiment was organized. 120 pedagogical workers became its participants; some of them were the specialists in the field of upbringing, working in educational organizations of the Republic of Mordovia. Such specialists in accordance with the professional standard "Specialist in the field of upbringing" include social educators, tutors, teachers-organisers, counselors, senior counselors, educators and senior educators (except for preschool educational organizations), etc. At the ascertaining stage of the experiment (April-May 2019), control and experimental groups were formed and compared in terms of basic characteristics. The preparedness level of specialists in the field of upbringing was checked on the basis of performing case studies, tests, and competency-based tasks.

The difficulties in completing the tasks related to the criterion of "necessary knowledge" defined by the professional standard "Specialist in the field of upbringing" regarding the issues related to the design and support of the individual route implementation were experienced by 34.3% of potential students of qualification enhancement program in the control group and 36% in the experimental group. 79% of people in the control group and 81.7% in the experimental group were not able to demonstrate the skills indicated in the above mentioned professional standard as necessary.

Based on the study, it was found that 36% of the respondents in the experimental group and 34.3% in the control group had a low level of readiness to design and maintain an individual route; 45.7% in the experimental group and 44.7% in the control group had the average level; 18.3% of people in the experimental group and 21% in the control group showed a sufficient level; 0% of people in both groups demonstrated a high level. Based on the data obtained, purposeful work was planned and organized to increase the level of readiness for design and maintenance of the individual route.

In accordance with the Federal Project "Success of Every Child", as part of the national project "Education", the team of authors developed and implemented additional professional education program for qualification enhancement "Personalized Education Technologies: Designing and Maintaining an Individual Route". The total complexity of the program is 108 hours. From September 2019 to February 2020, the formative stage of the experiment was carried out through the implementation of this program, its participants were the ones from the experimental group.

The main aim of the additional professional education program for qualification enhancement "Technologies for personalized education: designing and maintaining an individual route" was to improve competencies in the design, implementation and pedagogical support of individual routes for children, to assist students in the conscious choice of socialization, upbringing and self-education strategies, and to distribute and evaluate available child's resources for the implementation of educational and life goals.

Mastering of this program ensures the improvement of the following teachers' competencies:

- willingness to use the methods and technologies of upbringing and training, taking into account personal, age and individual characteristics, students' special educational needs:
- readiness for the development and implementation of educational methods, technologies and methodologies for the analysis of the results obtained within their use in educational organizations during pedagogical support of individual routes.

Additional professional education program for qualification enhancement is aimed at solving the following problems:

- familiarization with the theoretical and methodological foundations helping to organize the process of education, design and implementation of individual routes;
- mastering the technology of designing and implementing an individual route;
- obtaining the technology of pedagogical support for the implementation of individual student's routes.

The content component of the programs is built on a modular basis. Additional professional education program includes 2 modules, each of them involves the development of theoretical material, formation of skills, ways of working and practical experience.

The first module, "Theoretical foundations of designing and implementing individual routes in the context of a personalized approach to upbringing" is focused on the problem of individualization of the educational process in line with the Federal State Educational Standards of General Education and the professional standard "Specialist in the field of upbringing", theoretical foundations of design and pedagogical support of individual routes helping to assist students in determining personal development strategies at different levels of education and efficient use of resources in the productive achievement of educational and life goals.

The second module "Pedagogical support for the implementation of individual routes in personalized educational activities" helps to deepen the knowledge of specialists in the field of upbringing on design and implementation of the individual route, taking into account age, psychophysiological and social characteristics of students as well as development characteristics. This module is focused on the formation of skills in the field of mastering the technology of pedagogical support for the implementation of individual routes, including those with special needs: students who have shown outstanding abilities; students with disabilities, students at risk.

Mastering of the program involves independent reaching of the following educational tasks by the students:

- familiarity with the legal framework for designing individual routes;
- development of requirements for the teacher within implementation of a personalized approach to education;
- diagnostics of the student's level of socialization and upbringing with the aim of further design of the individual route based on the obtained results;
- development of recommendations for parents on the implementation of the individual route by a child;
- studying the interaction between the subjects of educational relations for designing of the individual route;
- consideration of the functional responsibilities by various specialists in the field of upbringing while designing individual routes;
- designing a technological map of the upbringing class activities (cases, events) using individual routes;
- acquaintance with the activities of different educational organizations with the aim of designing complex individual routes:

 development of recommendations for individual and group correctional and developmental classes with children having special educational needs within the framework of educational routs' implementation.

Completion of the additional professional education program for qualification enhancement is presented by the final certification, which implies the defense of the individual student's route by the student on the choice of the listener (child at risk, hard-to-educate student, student with special educational needs).

As a result, by the end of the additional professional education program for qualification enhancement "Technologies for personalized education: designing and maintaining an individual route", the students will acquire the knowledge of:

- regulatory documents governing the design and implementation of individual routes;
- patterns of age development, stages and crises in development and socialization of the individual;
- indicators of individual characteristics of personal development trajectories, possible deviations;
- ways and methods of pedagogical diagnostics of individual characteristics by educational relations' subjects;
- psychophysiological characteristics of children with special educational needs.

The program is focused on the formation of the following skills:

- to carry out diagnostics of educational relations` subjects in designing individual routes;
- to use educational events for design and implementation of the individual route to satisfy the educational request;
- to use, test and implement individual routes to include all students into the educational process.

Participation in the additional professional education program will allow to master the following ways of activity:

- design of the individual route taking into account age, psychophysiological parameters and specifics of the student's personal development;
- provision of pedagogical support for the implementation of individual routes.

Readiness assessment of the specialist in the field of upbringing for design, implementation and pedagogical support of individual routes of children was carried out in the process of establishing compliance between the criteria showing the formation of the improved competencies with the planned results.

During the control phase of the experiment (February-March 2020), participants in the control and experimental groups were asked to perform competency-based tasks, solve case problems, do tests and questionnaires. 73% of the students in the experimental group demonstrated a sufficient and 17% - high levels of readiness formation for designing and maintaining an individual route. It was expressed in the knowledge of the principles and design stages of the educational environment, individual routes, forms and methods of diagnosing the level of education and socialization, the ability to provide assistance in the pedagogical design of the educational environment and students' individual routes; knowledge of the system of pedagogical design technologies used for shaping educational environment and individual student routes, forms and methods for monitoring the results of personified education. Whereas in the control group the low level is 35%, the average is 44%, the sufficient one is only 21%, and the high level is 0%.

#### 5 Conclusion

In conclusion, it is worth noting that practice-oriented training of a specialist in the field of upbringing at the university should be focused on the formation of professional competencies that allow designing, implementation and pedagogical support of individual routes, assisting students in making an informed choice of educational strategy, allocating and evaluating available resources for the implementation of educational and life goals.

Readiness of a specialist in the field of upbringing for designing an individual route is an integrative professional and personal education, characterized by the presence of the arrangement to carry out professional activities taking into account personal, age and individual characteristics of students, a complex of knowledge about personification of the educational process, the ability to design and implement individual routes, and provide pedagogical support for their implementation.

One of the means for preparing a specialist in the field of upbringing for designing individual student's route, contributing to the formation of practice-oriented professional activities of students and stimulating their pedagogical creativity, is an additional professional education program. This form of professional training, closely related to the development of the main professional educational program, helps to create conditions that go beyond the requirements of the Federal State Educational Standards of Higher Pedagogical Education and improve design competencies of specialists in the field of upbringing.

Careful selection of educational content and pedagogically expedient compositional design of the additional professional education program for qualification enhancement ensure the highest possible level of preparedness of specialists in the field of upbringing for designing individual routes, creating conditions for improving professional competencies and contributing to the formation of stable positive motivation for the professional activity of a teacher.

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#### **Primary Paper Section:** A

Secondary Paper Section: AM, AN

#### INTEGRATION OF FINANCIAL LITERACY INTO MODERN EDUCATION SYSTEM

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Abstract: The research shows that reforming the Russian system of education predetermines the necessity of forming competencies in the sphere of financial literacy in various age and target groups. In the paper, the financial literacy formation level of the population has been monitored in the form of testing the participants of the educational program for schoolchildren and further professional program of skills enhancement for teachers of rural schools carried out in the Republic of Mordovia. Basic competency framework of financial literacy for various age groups has been developed. Possible focus areas of integration of financial literacy modules into school subjects are described. Recommendations are suggested for forming further development path of financial education in the country.

Keywords: financial literacy, integration of education, financial competency, educational programs.

#### 1 Introduction

For the recent fifteen years, within the educational policy carried out in Russia, its system of education has been upgraded (Mangher, 2014; Chigisheva, 2015; Matyunina, 2015). This upgrade process is characterized by the search for a new paradigm of education, creation of the modern system for assessing its quality, improvement of the state educational standards, and forming the requirements for the training level of educational institution graduates. Russia's modern strategy in the sphere of development of education is represented in the State program "The development of education for the years 2018-2020" (approved by Resolution of the RF Government No.1642 dated December 26, 2017) where improvement of the results of Russian school students (in the domain of financial literacy included) further to assessing their educational achievements within the Program for International Student Assessment (PISA) is determined as the priority objective, alongside others.

At the current upgrade stage of Russian education, developing financial education and improving financial literacy of the population become one of the priority lines of the state policy. This is quite justified, because higher financial literacy will enable the population to respond in a relevant way to threats and challenges emerging in the contemporary economy increasingly and to skillfully act in conditions of the economic uncertainty in the future. Moreover, improvement of financial literacy acts as a crucial factor of the sustainable economic growth. In the world of today, financial literacy becomes a skill one needs for ensuring both one's personal and the public financial welfare (Rutkovskaya, 2017). The above renders the problem of integrating the financial literacy component into the modern education system important.

#### 2 Literature Review

It has to be noted there is no uniform approach to detailing the content of the category "financial literacy" currently. The definitions available in the modern literature emphasize various aspects of financial literacy: actual and conscious knowledge of financial issues, the ability of apply the knowledge (Anderson et al. 2017; Blue et al., 2014; Leumann, 2017), individual financial experience, and even reasonable financial behavior (Tsvetova, 2016; Faulkner, 2017). Moreover, such categories as "financial abilities" and "financial potential" (Great Britain), "financial competence" and "financial responsibility" (Germany), "financial education" (Organization for Economic Cooperation and Development (OECD)) are used for assessing financial literacy of the population in foreign countries.

In the modern literature, there is a widespread approach according to which the term "financial literacy" is interpreted as the "knowledge about financial institutions and products offered by them, as well as the ability to use them as the need arises while realizing the consequences of one's actions" (Van Campenhout, 2015; De Moor & Verschetze, 2017).

According to M. E. Paatova and M. Sh. Daurova (2014), the category under consideration includes the "cognitive, the activity-based, and the values and motivation components". The cognitive constituent of financial literacy incorporates the total of knowledge in personal finance management which allows correctly evaluating various financial situations and making the appropriate financial decisions, as well as developing one's financial competence by means of self-education. The activity-based component is the research, analytical, organizational, and other knowledge, abilities and skills of organizing personal financial activity and identifying the ways for improving the latter. The values and motivation component includes personal motives and value-related attitudes, responsibility for financial decisions being made, aspiration to enhance one's financial literacy, and trust in finance and credit institutions.

According to the authors, financial literacy is a total of three components: 1) financial knowledge which is the general understanding of questions concerning financial situations, financial products and services; 2) abilities which allow applying the gained knowledge in various situations; 3) skills of sensible financial behavior, realization of consequences of making financial decisions.

Currently, many countries of the world develop integrated programs of financial education for various target groups: school students (Poltavskaya et al., 2014; Urban et al., 2018; Chaprak & Kuznetsov, 2017; Ozkale & Ozdemir Erdogan, 2017a, 2017b; Lazebnikova, 2017; Grohmann, 2018; Movchan, 2019), students (Karaa & Kuğu, 2016; Çam & Barut, 2015; Kaur et al., 2015; Semenova & Filichkina, 2017), young specialists (Sawatzki, 2017; Sawatzki & Sullivan, 2017; Lusardi et al., 2010; Gutnu & Cihangir, 2015), the retired ones (Lusardi & Mitchell, 2014), investors (Jariwala, 2015).

It should be noted that Russian scientists – pedagogues deal with questions of financial literacy in various domains: mathematics (Almazova & Truntaeva, 2018; Sedova, 2017; Reshetnikova & Goncharova, 2017), IT (Vendina & Maliataki, 2015; Osipova, 2016), physics (Zabelina & Kazakov, 2018), social studies (Krivonos & Kolomiychuk, 2016, Asonova et al., 2017).

#### 3 Materials and Methods

The objective of the research is to develop the algorithm of integrating the financial literacy component into the modern education system. Achievement of the said objective implies completing the following tasks: to substantiate the algorithm of integrating financial literacy into the system of education; to study the best practices of Russian higher educational institutions in fulfillment of financial literacy programs; to word recommendations on forming further path of development of financial education.

The basis for the research was made up by the "Personal finance school" subproject within the project "Promotion of improvement of the financial literacy level of the population and development of financial education in the Russian Federation" and further professional program of skills enhancement for teachers of rural schools of the Republic of Mordovia "Fundamentals of financial literacy, methods of teaching it within the system of middle and secondary education and financial outreach of the rural population". These projects were carried out in 2015-2019 on the base of N. P. Ogarev Mordovia State University, National Research University.

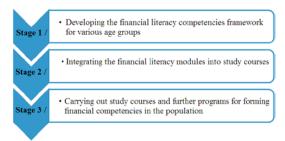
The methodological basis of the research was the integrative approach providing for implementation of the financial literacy components into various school subjects.

#### 4 Results and Discussion

## 4.1 The Algorithm of Integrating the Financial Literacy Component into the Modern Education System

An important task of the modern educational policy is integration of the competency "financial literacy" into the system of education. The authors believe this process can be represented as a definite algorithm involving three successive stages (Figure 1).

Figure 1 The algorithm of integrating the financial literacy component into the modern education system



Source: developed by the authors

The first stage implies developing the competency framework in financial literacy for various age groups including three main components: knowledge, abilities, skills (see Table 1). The structure of financial competency frameworks for various target groups differs in the set of competencies, which allows keeping the uniform approach to coordination of the frameworks as for various target groups. Meanwhile, the worded competencies of financial literacy are used as a uniform reference point for both adults and the young people, and they are included into both frameworks with respective differences, which implies the consistency of competency frameworks for various age groups.

Table 1 Competency framework of financial literacy for various

age groups Module

age groups						
Module	Competency	Knowledge	Abilities	Skills		
Young people						
Money and payment products	The ability to use various payment methods	Cash and cashless money	Distinguishin g between types of money and payment products	Having the skills of cash and cashless settlement		
2. Personal financial plan	The ability to draw up one's personal financial plan	Personal revenues and expenses structure	Keeping records of revenues and expenses	Drawing up one's personal financial plan on a regular basis		
3. Types of loans	The ability to select the best loan option	Types of loans for individuals, real interest rate, interest accrual methods	Knowing how to calculate interests on loans	Estimating the necessity of getting a loan and possibility of repaying it		
4. Savings and investments	The ability to use financial instruments	Types of banking deposits and financial instruments	Knowing how to compare profits margin on banking deposits and particular financial instruments for improving one's welfare	Opting for sensible schemes of saving and / or investing cash funds		
5. Taxes and ways of payment thereof	The ability to calculate taxes payable	Types of taxes and payment deadlines	Knowing how to identify taxable objects for	Having the skills of calculating taxes payable		

Module	Competency	Knowledge	Abilities	Skills
		Types of	Various taxes Knowing	
	The ability	retirement	how to plan	
6. Retirement	to choose	benefits.	the future	
benefits /	methods and	terms and	pension	Planning
pension	means for increasing	conditions	using various	pension
provision	one's future	for	methods of	savings
	pension	receiving	pension	
		them	savings	
	The ability to opt for	Insurance	Distinguishin	Forming
<ol><li>Financial</li></ol>	sensible	products;	g between	the
protection and	schemes of	signs of	insurance	"financial
fraud	financial	financial	protection	cushion"
	protection	fraud	instruments	
		dult population		
				Drawing up
	The ability	The		budget
4 70 11	to draw up	advantages	Planning	routinely
1. Family	family	of financial	revenues and	and
budget and	budget	planning	expenses both in the	keeping to
financial planning	taking into account the	and keeping	short and	it taking into
praining	human life	the family	long terms	account the
	cycle	budget	long terms	human life
	Cycle			cycle
	The ability		Knowing	Having the
	to identify	Types of	how to opt	skills of the
	the most	banking	for the most	use of
2. Banking	acceptable	products	acceptable	products
products and	option of the	and	variant of	and
services	use of	services,	using	services,
	banking	including	banking	including
	products and	those using IT	products and	those
	services	11	services	applying I
<del></del>	<del></del>		Knowing	
	The ability		how to make	
	to opt for	Features	independent	ъ :
3. Stock market	sensible	and	decisions on	Forming a
and financial	schemes of	advantages	investing	diversified
instruments	investing	of particular	one's	investment
	family	financial	savings, with	portfolio
	savings	instruments	possible risks borne	
	•		in mind	
				Having the
				skills of
	The ability		Knowing	estimating
	to choose		how to opt	insurance
	insurance	Т	for the most	risks and
<ol><li>Insurance</li></ol>	products for	Types of insurance	acceptable	calculating
	the purposes	msurance	insurance	insurance
	of risks		product	premiums
	management		variant	and
				insurance
	The ability			payouts
				Having the
5 Taxes and	to identify	Taxable		
5. Taxes and social security		objects,	Applying tax	skills of
5. Taxes and social security of citizens	to identify the taxable	objects, types of tax	Applying tax benefits	
social security	to identify the taxable basis and	objects,		skills of filling out tax
social security	to identify the taxable basis and calculate	objects, types of tax		skills of filling out tax
social security	to identify the taxable basis and calculate taxes	objects, types of tax		skills of filling out tax
social security of citizens	to identify the taxable basis and calculate taxes	objects, types of tax	Knowing how to	skills of filling out tax
social security of citizens  6. Retirement	to identify the taxable basis and calculate taxes	objects, types of tax deductions	Knowing how to consciously	skills of filling out tax declaration
social security of citizens  6. Retirement benefits and	to identify the taxable basis and calculate taxes payable  The ability to plan	objects, types of tax deductions Methods of	Knowing how to consciously choose a	skills of filling out tax declaration Forming at individual
social security of citizens  6. Retirement benefits and non-state	to identify the taxable basis and calculate taxes payable  The ability to plan retirement	objects, types of tax deductions Methods of retirement	Knowing how to consciously choose a non-state	skills of filling out tax declaration Forming as individual retirement
social security of citizens  6. Retirement benefits and	to identify the taxable basis and calculate taxes payable  The ability to plan	objects, types of tax deductions Methods of	Knowing how to consciously choose a non-state pension	skills of filling out tax declaration Forming as individual
social security of citizens  6. Retirement benefits and non-state	to identify the taxable basis and calculate taxes payable  The ability to plan retirement	objects, types of tax deductions Methods of retirement	Knowing how to consciously choose a non-state pension provision	skills of filling out tax declaration Forming ar individual retirement
social security of citizens  6. Retirement benefits and non-state	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings	objects, types of tax deductions  Methods of retirement savings	Knowing how to consciously choose a non-state pension	skills of filling out tax declaration Forming as individual retirement
social security of citizens  6. Retirement benefits and non-state	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings	objects, types of tax deductions  Methods of retirement savings	Knowing how to consciously choose a non-state pension provision	skills of filling out tax declaration Forming ar individual retirement
social security of citizens  6. Retirement benefits and non-state	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings	objects, types of tax deductions  Methods of retirement savings  Risks in business	Knowing how to consciously choose a non-state pension provision program	skills of filling out tax declaration Forming as individual retirement
social security of citizens  6. Retirement benefits and non-state pension funds	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and	objects, types of tax deductions  Methods of retirement savings  Risks in business activity,	Knowing how to consciously choose a non-state pension provision program	skills of filling out tax declaration Forming as individual retirement plan
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6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents,	Knowing how to consciously choose a non-state pension provision program  Knowing how to plan business activity	skills of filling out tax declaration  Forming a individual retirement plan  Management and responsible financial
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of	Knowing how to consciously choose a non-state pension provision program  Knowing how to plan business activity allowing for improvement of one's	skills of filling out tax declaration  Forming as individual retirement plan  Management and responsible
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for	Knowing how to consciously choose a non-state pension provision program  Knowing how to plan business activity allowing for improvement	skills of filling out tax declaration  Forming a individual retirement plan  Management and responsible financial
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6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare	Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneurs and small business Types of financial risks, ways of preventing	Knowing how to consciously choose a non-state pension provision program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to estimate	skills of filling out tax declaration  Forming as individual retirement plan  Management and responsible financial behavior  Making independer
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6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare  The ability to correlate profit margins and	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneurs and small business  Types of financial risks, ways of preventing financial losses, "financial	Knowing how to consciously choose a non-state pension program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to plan business activity allowing for improvement of one's welfare	skills of filling out tax declaration  Forming as individual retirement plan  Management and responsible financial behavior  Making independent financial decisions with risks
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare  The ability to correlate profit margins and	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneurs and small business Types of financial risks, ways of preventing financial losses, "financial security	Knowing how to consciously choose a non-state pension program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to estimate potential financial risks and detect	skills of filling out tax declaration  Forming an individual retirement plan  Management and responsible financial behavior  Making independent financial decisions with risks taken into
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial risks and fraud	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare  The ability to correlate profit margins and risk	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneurs and small business  Types of financial risks, ways of preventing financial losses, "financial security rules"	Knowing how to consciously choose a non-state pension provision program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to estimate potential financial risks and detect financial	skills of filling out tax declaration  Forming an individual retirement plan  Management and responsible financial behavior  Making independer t financial decisions with risks taken into account
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare  The ability to correlate profit margins and risk  The ability	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneurs and small business  Types of financial risks, ways of preventing financial losses, "financial security rules"  Rules of	Knowing how to consciously choose a non-state pension provision program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to estimate potential financial risks and detect financial	skills of filling out tax declaration  Forming an individual retirement plan  Management and responsible financial behavior  Making independent tinancial decisions with risks taken into account
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial risks and fraud  9. Protection of rights for	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare  The ability to correlate profit margins and risk  The ability to protect	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneu rs and small business Types of financial risks, ways of preventing financial losses, "financial security rules" rules of protection	Knowing how to consciously choose a non-state pension program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to estimate potential financial financial fraud  Knowing how to draw	skills of filling out tax declaration tax declaration. Forming an individual retirement plan  Management and responsible financial behavior  Making independent financial decisions with risks taken into account. Having the skills of
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial risks and fraud  9. Protection of rights for consumers of	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare  The ability to correlate profit margins and risk  The ability	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneu rs and small business  Types of financial risks, ways of preventing financial losses, "financial security rules"  Rules of protection of the rights	Knowing how to consciously choose a non-state pension program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to estimate potential financial risks and detect financial fraud  Knowing how to draw up a lawsuit /	skills of filling out tax declaration  Forming an individual retirement plan  Management and responsible financial behavior  Making independer t financial decisions with risks taken into account  Having the skills of practical
6. Retirement benefits and non-state pension funds  7. Entrepreneursh ip and launching the own business  8. Financial risks and fraud  9. Protection of rights for	to identify the taxable basis and calculate taxes payable  The ability to plan retirement savings  The ability to launch and independentl y run one's own business as a way for improving one's financial welfare  The ability to correlate profit margins and risk  The ability to protect one's rights	objects, types of tax deductions  Methods of retirement savings  Risks in business activity, financial report documents, basics of taxation for individual entrepreneu rs and small business Types of financial risks, ways of preventing financial losses, "financial security rules" rules of protection	Knowing how to consciously choose a non-state pension program  Knowing how to plan business activity allowing for improvement of one's welfare  Knowing how to estimate potential financial financial fraud  Knowing how to draw	Forming are individual retirement plan  Management and responsible financial behavior  Making independent financial decisions with risks taken into account  Having the skills of

Module	Competency	Knowledge	Abilities	Skills
	services			solving
				particular
				situations
				in the
				sphere of
				protection
				of the
				rights of
				financial
				services
				consumer

Source: developed by the authors

The second stage is characterized by implementing various modules into the study courses. Table 2 gives some examples of integrating the financial literacy modules into school subjects.

Table 2 Examples of integrating the financial literacy modules into school subjects

Module	Examples of assignments	Subjects
	The history of origin of money	<del></del>
	Geometrical shapes of banknotes	
	Numerical equality matching problems	The World Around
	for exchanging banknotes of various	Us
	face values	History
M	Calculation of value of the national	Mathematics
Money and	currency in relation to a foreign one	
payment	according to the set rate	
products	Currency units of various countries of	
	the world	Geography
	Cryptocurrency and distributed ledger	IT
	technologies	Social studies
	E-money and mechanisms of their	
	protection	
	Calculation of the cost of acquiring a	
	pet	The XX and A area.
D 1	Drawing up a personal or family	The World Around
Personal	budget	Us
financial plan	Calculation of the optimum cost	Mathematics
	variant for a holiday at various resort	Social studies
	homes	
m c1	Calculation of interests on loan	Mathematics
Types of loans	Borrower's credit history	Social studies
	The history of origin of banks	
	Comparison of returns on investment	TT' .
	of various securities	History Mathematics
	Calculation of accreted value for	Mathematics
Savings and	money deposits	
investments	Calculation of simple and compound	
	interests	0!-1 4!
	Banking deposits insurance system	Social studies
	Assesing the financial behavior of	Literature
	literary characters	
Taxes and	Calculation of tax amount payable to	
ways of	the budget	Mathematics
payment	Calculation of personal income tax	Social studies
thereof	deductions	
	Finding the relation between	
Retirement	demographic figures and the retirement	Geography
benefits	benefits level of the population in	Social studies
	various countries of the world	
	Calculation of insurance indemnity	Mathematics
Financial	under an insurance contract	Social studies
protection and	Calculation of the annual insurance	
fraud	premium in life insurance	
	Information security	IT

Source: developed by the authors

### 4.2 The Experience of N. P. Ogarev Mordovia State University in Performance of Financial Literacy Programs

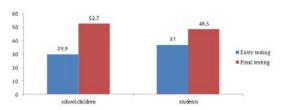
The competency framework of financial literacy developed for various age groups underlies the way financial literacy enhancement courses of the "Personal finance school" subproject were formed, and it has also been represented in financial literacy events held within the subproject "Training rural teachers in financial literacy and methods of conducting outreach work with rural population" carried out at N. P. Ogarev Mordovia State National Research University.

Within the performance of the "Personal finance school" subproject, teachers of the faculty of economics have developed study programs for schoolchildren ("Fundamentals of financial literacy for young people") and for students ("My personal finance"). In the said programs, over 558 learners have been trained, with 155 schoolchildren of grades 9-10 and 403 students among them.

For the purposes of monitoring the learners' financial literacy, test assignments have been developed including questions on

personal finance, taxes, banking activity, securities, insurance, etc. The results of the entry and final testing are given in Figure 2.

Figure 2. The financial literacy index of young people within the "Personal finance school" subproject, % (authors' calculations)



Source: developed by the authors

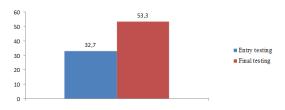
The final testing has shown that from the domains selected by the authors, the most studied topics for the schoolchildren were: family budget, certain banking products and services, some types of securities, terms and conditions of receiving citizen's individual personal account number in the compulsory pension insurance system. As for the students, the most familiar topics for them turned out to be personal financial planning, banking products and services, securities.

To solve the problem of improving financial literacy, the professional potential of pedagogical workers of comprehensive institutions has to be employed, too. It is essential to conduct special training of personnel who are able to convey knowledge and impart practical abilities in financial literacy within school subjects, for integrating the financial literacy component into the educational process.

In 2018-2019, the university ran further professional program of skills enhancement for teachers of rural schools of the Republic of Mordovia "Fundamentals of financial literacy, methods of teaching it within the system of middle and secondary education and financial outreach of the rural population". The program was carried out within the joint project of Russia's Ministry of Finance and the World Bank "Promotion of improvement of the financial literacy level of the population and development of financial education in the Russian Federation", and the subproject "Training rural teachers in financial literacy and methods of conducting outreach work with rural population" upon the initiative of Southern Federal University (Rostov-on-Don) and the Institute of IFC (Moscow). In this program, 50 rural teachers have been trained who teach various subjects: physics and mathematics - 6 people (12%), history and social studies -8 people (16%), the Russian language and literature -5people (10%), primary school teachers - 10 people (20%), foreign language - 7 people (14%), and other subjects - 14 people (28%). The average age of the audience was 42 years.

For identifying the financial literacy level of the participants of the said further educational program, entry and final tests were conducted. Their results are shown in Figure 3.

Figure 3. Financial literacy index of rural teachers, % (authors' calculations)



Source: developed by the authors

In the entry testing, the prevailing part of the participants have shown a satisfactory level of financial literacy. While comparing the answers to all questions of the entry test, it has to be noted that the percentage of learners scoring 36 to 47 points was 78%, and the smallest number of correct answers ranges within 54 to 69 points – 2%. In the entry testing, the questions concerning circulation of money, particularities of financing the entrepreneurial activity of agricultural producers, taxation and financial support of agricultural producers, and the activity of agricultural consumer credit cooperatives turned out to be the most difficult tasks.

The participants have shown higher results in the final testing. The highest effectiveness of acquisition of the financial literacy enhancement program has been demonstrated by teachers of history and social studies, physics and mathematics, and the primary school ones.

#### **5 Conclusion**

In conditions of the upgrade of the Russian system of education and development of new educational standards, the questions of integrating financial literacy into the educational system gain special relevance. This is associated with the fact that financial literacy is not merely an essential combination of knowledge, life skills, and responsibility that are necessary for making balanced decisions in the personal finance sphere. It its also an important factor of the long-term sustainable economic development, improvement of the quality and level of life of the population, and the assurance of individual financial security.

The conducted research has allowed wording the following promising lines of development of financial education in Russia:

- improving, implementing, and propagating the developed educational programs in fundamentals of financial literacy;
- including basic financial literacy subjects as a constituent into the Federal state educational standard;
- implementing the financial literacy component into the advanced training system for teachers;
- large-scale training of financial literacy teachers;
- spreading information and feature materials about financial products and services;
- having further educational programs for enhancing financial literacy developed and implemented by higher educational institutions in cooperation with finance and credit institutions;
- creating a digital financial encyclopedia;
- organizing summer financial schools for schoolchildren.

Thus, successful integration of financial literacy into the modern education system depends on a number of factors: study programs in fundamentals of financial literacy have to be available, taking into account the interests of various age groups; an efficient teacher training system is essential; motivation mechanisms at the state level have to be created for business and population to take active part in financial education programs.

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**Primary Paper Section:** A

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#### PEDAGOGICAL TECHNOLOGY FOR EARLY CHOICE OF FUTURE PROFESSION

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Abstract: The problem of preparing a junior schoolchild for future professional choice rarely falls within the scope of interest of educational institutions and teachers, and is insufficiently covered in the scientific and methodological discourse. The relevance of the paper lies in substantiation of the idea that the primary school age is an important link in the general chain of student's preparation for the choice of profession. The purpose of the paper is to present the developed pedagogical technology, which is based on the methods of problem-based learning to ensure systemic propaedeutics for early career guidance. Practical recommendations are offered on the use of the pedagogical technology at primary school, and its step-by-step algorithm is described.

Keywords: junior schoolchild, propaedeutics, choice, professional self-determination, career guidance, self-reflection, pedagogical technology, problem-based learning.

#### 1 Introduction

"Who am I?", "What is the meaning of my life?", "What am I?", "What is my purpose?", these questions are central to self-determination and self-identification of an individual. The life of a modern man is dynamic, follows daily routine, runs according to the established algorithms, and questions of career choice are dictated in a post-industrial society by fierce competition on the labor market.

Most psychological and pedagogical scientific publications on career guidance mostly cover the age of senior school students and school graduates. However, the processes of self-perception and search for identity occurs as early as the stage of early childhood (an analysis of philosophical and pedagogical discourse shows an implicit convention that implies initial life experience under the childhood). The transition to the digital economy and education, the amount of information faced by junior school students, the feeling of "accelerated flow of time", the current methods of project-based and problem-based education give the right to state that it is somewhat late to offer career guidance at senior school age. The author's position regarding career guidance may be expressed as: the earlier the better.

A modern school abiding by the federal state educational standards is designed to develop a certain range of competencies, except one: to teach a child how to build a life of optimal comfort in the modern society, which poses one important problem to be solved - one should find its own self and its own place in this world.

Due to the above, the development and substantiation of pedagogical technology in the system of propaedeutical preparation of primary school students for the choice of a future profession is urgent and relevant.

#### 2 Literature Review

In general, sufficient attention is given to the problem of a future career choice in psychology and pedagogy. However, this research is focused on the problem of pedagogical support for the career choice at an early age. The issues of future career choice propaedeutics for junior schoolchildren are tackled in their works by Kh.C. Vokhidova (2016), O.Yu. Elkina (2012), V.P. Kondrashova (2004), V.I. Kormakova (2009), A.Kh. Kurbasheva (2015), N.S. Pryazhnikova (2014), T.I. Shalavina (2009), S.N. Chistyakova, N.F Rodichev (2013) and others.

Theoretical comprehension of the concept "pedagogical technology" is provided in the works of such Russian scientists as V.P. Bespalko (1989), M.V. Klarina (1999), G.K. Selevko (1998) and others.

The method of problem-based learning is one of the rapidly evolving means of obtaining knowledge in the education system; the international publications address general issues associated with the problem-based learning in school, tertiary (professional) and higher education (Hmelo-Silver et al., 2006; Ikonnikova et al., 2015; Savery, 2006; Dole et al., 2017), and explore how to prepare a facilitator teacher to implement the problem-based learning (Hmelo-Silver et al., 2006). And, as noted by S. Dole, L. Bloom, K. K. Doss (2017), one of the conditions for the pedagogical effectiveness of the problem-based learning is its early use already at the first (primary) level of school education.

The problem of career choice is closely related to the career guidance concepts and is at the center of teachers and psychologists' attention. The personality-centered approaches in the modern educational space to the definition of "career guidance" concept reveal new components within its meaning that relate to the concept of professional self-determination of an individual. According to G. V. Rezapkina (2017), in this context career guidance gains a psychological, pedagogical and social meaning, is initiated by the state and prepares a young person for professional self-determination (p. 208); based on V. I. Blinov's idea (Blinov & Sergeev, 2015), this is a system of actions implemented within educational and teaching activities aimed at professional self-determination (p. 6). The interpretation of a definition reconciling two analyzed concepts was offered by Professor S. N. Chistyakova (Chistyakova & Rodichev, 2013), from her point of view, career guidance is a system of interactions between an individual and the society, which purpose, on the one hand, is to satisfy the needs of an individual in professional self-determination and, on the other hand, to reproduce the social and professional structure (pp. 19-20). Thus, professional self-determination as a process and career choice as a result are the effects of career guidance.

#### 3 Research Methodological Framework

The research purpose consists in the development of pedagogical technology for propaedeutical preparation of a junior schoolchild for the future career choice.

The research objectives are:

- Present theoretical foundations of pedagogical technology for early career choice propaedeutics.
- Justify the relevance of problem-based learning methods within the modern approaches to organization of the career guidance efforts.
- 3. Make recommendations on the use of pedagogical technology.

For addressing the research objectives, the following *methods* were used:

For achieving the purpose and solving the defined problems, the following *methods* were used:

- Theoretical analysis of the pedagogical and psychological literature on career guidance and choice of profession;
- Comparative method for comparing and correlating conceptual researches of different scientists on the topic under research:
- Method of problem modeling and designing;
- Descriptive method.

#### 4 Results and Discussion

The modern world of professions is wide and diverse, it is an open-end mobile system, with amplification of science-intensive technologies, discoveries in the field of space development, etc. new professions emerge, which are a complete mystery for both parents and children, while other professions lose their importance, and are taken over by robots. That is why a strategy consisting only in raising awareness is not sufficient; a

pedagogical technology is needed tailored to the age peculiarities of junior schoolchildren, their leading activities, and it should be a game, on the one hand, and learning, on the other hand. For this purpose, the educational methodology solution developed by the author, "Journey into the World of Professions": A book for group reading and discussion in the family and in the classroom (Antonova, 2018), is presented, which has a pronounced problem-oriented character. It should be noted that, first, the pedagogical technology based on the methods of problem-based learning has been conceived and developed, and only then the book plotline, stories and creative tasks were developed oriented towards the career choice. This educational and methodical solution is designed to systematize and expand the knowledge of primary school students about the modern world of work and professions; to exert pedagogical impact on the development and correction of their socially significant qualities; to demonstrate the personal qualities that a representative of a certain profession should possess; to produce a list of the professions that are most interesting for junior students. There is a sufficient number of stories that allow a teacher to organize consistent work during classroom hours throughout the school year (if classes are held twice a month) [18, p.8].

Before proceeding directly to the description of the *technology of problem-oriented propaedeutics for career choice*, we would like to discuss the essence and specificity of the "pedagogical technology" concept. We agree with the opinion expressed by V.I. Chuprasova (2000) that the key distinctive features of the pedagogical technology are its distinct scientific validity and systemic nature (p. 4).

## 4.1 Theoretical Foundations of the Pedagogical Technology for Early Career Choice Propaedeutics

Below we present the main foundations of the pedagogical technology for the problem-oriented early career choice propaedeutics:

1. The development of value orientations for the career choice in the early school age should be pedagogically managed and systematic

In the life of an adult, the career choice is associated with prestige, decent pay, career advancement, etc. Objectively, such aspects do no exist in primary school. In this connection, the actualization of the value and meaning self-determination of junior schoolchildren in the context of professional self-determination involves the introduction of specially designed problem-based situations in the educational process. Such problem-based situations may concern, for example, the awareness of the difficulties related to the career choice, information gaps in any professional field necessary for successful self-determination, contradictory motives behind the forthcoming choice, etc.

2. Junior schoolchildren should have an idea of necessary professional competences in the world of careers, and be able to make their choice.

The informational content that the junior students deal with in order to choose their future profession should correspond to the mental world typical for their age and contain an activity component. A teacher shall develop the ability to choose. Here, different options of choice in each problem situation should be considered, comprehended and analyzed, because it is important that a child in the early school age is able to choose and go through alternative options of own self-determination in imagination, learn to think and design their future (Pryazhnikov, 2014, p. 41).

3. Future career choice by a junior student should be viewed in the context of their learning activity.

Psychologists believe that the most important age-specific development of a growing person occurs through the leading activity, which in the junior school is *the learning activity*. D.B. Elkonin (1997), when analyzing structure of the learning

activity of a junior student, identified the following components within it: 1) motivation; 2) learning objective; 3) learning activities; 4) control; and 5) assessment.

We agree with psychologist O. O. Gonina (2016) that the role of the learning activity in the propaedeutics for early career choice does not receive sufficient attention, its toolkit is wider, and the cognitive activity occurs through the content and methods of learning (p. 27). In other words, a junior student goes through 'didacticization' of the picture of the world and the way of life: he/she perceives the whole world and himself/herself through the lens of the learning activity.

## **4.2** Actualization of Problem-Based Learning Methods in the Early Career Guidance

According to the idea of M.I. Mahmutov (1998), one of the developers of the problem-based learning theory, if a teacher knows how to create problem-based situations and organize students' activities, provide guidance necessary to find a solution, it means that the teacher uses a practice-oriented approach, and students on their own find answers to their questions and underpin those with scientific conclusions (p. 197).

Problem-based learning technologies are usually opposed to explanatory-illustrative learning. In this connection, the latter is increasingly criticized in psychological and pedagogical circles (Kholodkova & Manakova, 2014, p. 166).

At the same time, the analysis shows that almost all available educational methodology resources about the world of professions addressed to primary schools have been used with the strong predominance of the explanatory and illustrative approach. In the same vein, the work on labour education of junior schoolchildren, using illustrative models, is being carried out, and all this is complemented by teaching schoolchildren to perform simple labour activities independently.

#### 4.3 Recommendations on the Use of Pedagogical Technology

The developed pedagogical technology is based on problemoriented propaedeutics for career choice and implies the following algorithm of work.

Definition of a problem / a problem-based situation. Due to the age-related peculiarities of cognitive thinking in early school age, the problem situation should be defined as a specific example. These may be educational materials, manuals, presentations depicting characters with clear actions , heroes who find themselves in certain problematic situations and need to perform certain actions to resolve them or find the way out. In the context of the presented didactic manual for children and parents "Journey into the World of Professions" (Antonova, 2018) it is a protagonist Misha Kudashev, a fourth-grader who is trying to choose his future profession.

O. Yu. Elkina (2012) believes that the junior schoolchildren's desire to identify themselves with the characters of the manual is explained by such age-related features as interest in cognition of various social phenomena, including those related to professional activity (p. 115). In the opinion of the psychologist O.O. Gonina (2016), this is also may be attributed to the children's spontaneity, emotionality, active play, imagination, and the ability to associate and compare oneself with a fictional character and to "try on" his stories (p. 122). At the same time, as noted by psychologists, imaginary situations are experienced by children of primary school age as quite real, and this is important for gaining the experience of solving typical problems in the context of a career choice. Such experience makes it possible to develop necessary professionally significant competences.

*Indication of guidelines* using which a problem can be solved. Such guidelines may include:

- Behavioural patterns, actions demonstrated by characters, manual protagonists, or adults respected by children;
- Evaluation phrases, judgments, statements uttered by characters both in direct and indirect speech (for example, in the form of proverbs and sayings).

Such guidelines in their essence represent "the patterns of social behavior" obtained from adults by younger schoolchildren (Kholodkova & Manakova, 2014, pp. 113-114), and may be more or less mutually contradictory, which allows the junior students to gradually move from the previously habitual "orientation to correctness" (Ibid., p. 5) to their own choice in a situation allowing for a multiplicity of "correct" decisions. It should be noted that within the framework of this pedagogical technology it is possible to offer guidelines to the students based on the principle of semantic gaps, i.e. not to uncover the whole plot. As an example, proverbs about the role of labor in human life are not cited by the teacher, but are naturally recalled in the conversation conducted by the characters.

Resolution of a problem-based situation (self-determination), which occurs through the completion of offered tasks, answers to questions, and each section of the manual contains the methodological materials of this kind. It should be emphasized that at this stage it is not the verification of the correct choice that is important, but the fact and ways of searching. The systematic completion by the junior students of the tasks offered in the Journey into the World of Professions manual is a training of choice, a kind of philosophy of choice, a space for independent resolution of problem-based situations.

Reflection as a joint discussion of the results and outcomes of choices between students and a teacher, a psychologist, or parents. The teacher "softly" leads the line of discussion; here the good reasoning and awareness of the decision are important in the guided choice made by the child on their own.

The technology of problem-oriented propaedeutics for career choice among junior schoolchildren corresponds to the core conceptual ideas of pedagogical support and value-sense approach to the choice of profession.

The pedagogical support always has a problem-oriented nature. O. C. Gazman (1996) believes that problems of pedagogical support are the problems of a child coping (with the guidance of a teacher) with his difficulties and thus successfully overcoming crises in their development. Gazman indicates obstacles to personal goals and ways to overcome those as pedagogical support objects. Accordingly, the objects of the technology of problem-oriented propaedeutics for career choice are the problems, difficulties, obstacles and crises of professional self-determination, as well as personal strategies for their overcoming.

H. F. Rodichev (2006) points out that the leading task of pedagogical support in relation to the process of professional self-determination is the inclusion in the educational process of the means that help students to "discover" themselves in various activities, including resolution of problem-based situations, where the teacher guides them to the independent resolution. These ideas, which meet the principles of openness of the future, problem orientation, richness of the environment and individualization, reflect sufficiently well the peculiarities inherent in the technology of problem-oriented propaedeutics for career choice.

The presented pedagogical technology can be referred to the socalled "activating methods"; its main distinction, as contrasted to the existing analogues, is that it is intended for the junior schoolchildren.

#### **5** Conclusion

The result of the conducted research is justification of theoretical, methodological and scientific-methodological foundations for organizing the process of occupational guidance propaedeutics among junior schoolchildren. The developed

pedagogical technology is based on the methods of problembased learning, takes into account age-specific features of junior schoolchildren, provides introduction into the world of work and professions and facilitates preparation for a career choice in the

The career choice is one of the most important choices in human life and it is necessary to start preparing for it at the early school age, when children obtain basic concepts of life and personal self-determination, get understanding of the values of being. A great role in the career choice is played by a teacher providing pedagogical support, motivating children to cognize the world of work and professions, expanding not only the boundaries of students' academic knowledge, but also their knowledge of own selves.

Designing one's own future requires creation of an adequate information backbone on the world of work and professions already at the primary school stage. Predominance of the social and communicative aspect over the content and activity one in the construction of a career trajectory requires acquaintance not only with the narrow occupational aspect of the professions, but also with the broader social and professional context where a modern professional lives and operates. The situation of constant mental experimentation ("exploratory search"), associated with various choice options, which is typical for junior students, requires preliminary acquaintance with the act of choice itself and its reflexive comprehension.

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## SOCIAL POTENTIAL OF INCLUSIVE VOLUNTEERING IN RUSSIA: DETERMINANTS AND DEVELOPMENTAL PROSPECTS

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Abstract: The relevance of the topic dealt with in this scientific research is attributed to a steadily growing interest to the inclusive volunteering in Russia over the recent decades. The key research purpose was to explore and analyze the social potential of volunteering by people with disabilities, to paint a portrait of a physically challenged volunteer in the Russian Federation. The methodological basis of this research was constituted by a problem of the involvement of young people with disabilities in wide-reaching social activities in general, and the volunteerism in particular. This scientific paper is intended for the executive managers and employees of volunteer organizations, as well as for coordinators of inclusive volunteering programs.

Keywords: volunteering, physically challenged volunteers, inclusive volunteering, volunteer activity, inclusion, inclusive environment.

#### 1 Introduction

The volunteerism in Russia has historical roots that go deep into the past. In different times it existed in the form of Sisters of Mercy communities, Timur and Pioneer movements, associations for the protection of nature and monuments, community policing teams, etc. (Antonovich & Kalinina, 2014; Biyushkina et al., 2015; Velikanova, 2009; Sinetsky, 2006).

"The particularity of the contemporary stage of development of the economy consists in its undergoing the change of priorities system. Among these priorities, the key one is the inclusion principle which gradually becomes a systemic imperative, i.e. it is taking over almost all branches of the economy and all spheres of public life" (Mamedov & Ishchenko-Padukova, 2018, p. 6).

Over the recent years, the scope and areas of volunteer activities in Russia have expanded significantly. Today, the topic of inclusive volunteering is on the agenda of major forums in the country, there are separate panels and round tables in the State Duma, the Federation Council and other government agencies, specifically dealing with it, it is the subject of ongoing discussions at the forums of the Russian Federation Public Chamber. Inclusive volunteering is a form of civic participation of people with impaired health in the good cause initiatives. It is a way of collective interaction and an effective mechanism for solving urgent social problems.

In recent years, the principles of equal opportunities have also been extended to the volunteer movement. Today they relate to the standards of work of volunteer organizations, and apply not only to the staff members, but also to the possibility of and rights for "barrier-free" participation of physically challenged people in the volunteering practices. The principles of equal opportunities are very broad in their scope. The environment necessary for the work of the disabled people is created: they receive more personal support during volunteer shifts; information materials, posters, etc. are translated into different languages to provide access to volunteering to as many people as possible.

Physically challenged volunteers are no different from others they also want to contribute their time and energy to improve the life of the community. They are often active, showing their abilities in many fields - arts, media, sports and education, and like other volunteers, bringing a wealth of their professional experience and skills to the projects, helping the community to become socially mature, promoting a value-based approach to building relationships. A remarkable phenomenon is the frequent conversion of physically challenged people from the recipient of services into the one who helps others and then own self, from engagement as a volunteer to a full-time employee.

#### 2 Literature Review

The volunteer movement open to disabled people in the Russian Federation is gaining in popularity every year. That's why the volunteerism resource is increasingly becoming the target of studies in the field of sociology, pedagogics, psychology, law, and now also the tourism (Belanovsky & Shirshova, 2018; Ivanov, 2018; Kudrinskaya, 2006; Pevnaya, 2015).

Presently, the mentioned inclusive volunteering sector is represented by a small number of publications. In the modern science, there is no scientific comprehension of volunteering by disabled people as an object of study, no description of its structure and substance, determinants of its emergence and implementation. The phenomenology of inclusive volunteering is dealt with only in a few papers of such authors as Gorlova N.I. (Gorlova et al., 2018), Starovojtova L.I. (2016a, 2016b), Krutitskaya E.V. (2015). The above authors in their collective monograph presented a historical recollection of the inclusive volunteering and an overview of the best Russian and foreign practices in organizing volunteering open to physically challenged people (Gorlova et al., 2018).

The works of foreign authors are interesting in their approaches to studying the volunteer movement. They are based on the indepth analysis of various directions of modern volunteer practices (Ascoli & Cnaan, 1997). The particular interest is attached to the studies of a group of authors where they present their analysis of participation of physically challenges persons in the volunteering practices (Rak & Spencer, 2016; Settle et al., 2019; Yanay-Ventura, 2019). In broad terms, the works of foreign researchers are highly appealing due to independence of judgments, validity of conclusions, reasonableness and objectivity in statements and assessments.

#### 3 Research Methods

The purpose of this paper is to explore inclusive volunteering in Russia and define its current characteristics. The main research objectives are as follows:

- 1. create a collective image of a physically challenged volunteer;
- analyze reasons for integration of physically challenged volunteers into the volunteer programs and reveal the key motives for volunteering;
- identify the volunteer activities of the highest interest to people with disabilities;
- articulate a range of measures to develop inclusive volunteering in Russia.

In order to fulfill the defined objectives, we have carried out the analysis of scientific literature on the problems of inclusive volunteering, survey, observation, modeling, typologization of the collected information, identification of the main trends in inclusive volunteering. In addition, a systematic and structural analysis was used, which helped to identify the main trends in the development of inclusive volunteering in Russia today.

Practical application of the above sociological scientific methods enabled the authors to fully implement three interrelated principles: concretization, typologization and objectification.

#### 4 Results and Discussion

Inclusive volunteering as a social phenomenon originated in the United States, where already in the second half of the 20th century volunteers supported the functioning of various non-

profit organizations and state agencies. For example, the physically challenged volunteers were successfully used for the Volunteers in the Police Service (VIPS) program, administered by the International Association of Chiefs of Police (IACP) (Volunteer Charter, 2016) in partnership with the US Bureau of Justice, Office of Justice and Department of Justice. The involvement of physically challenged volunteers in the work of Concord Police Department (CPD) in Concord, California, USA has also been recognized as a good practice.

In 2014, Volonteering Matters, a leading UK non-profit organization (London), developed the Volunteer Charter (Volunteers in Police Service (VIPS), 2020), which lays down the basic principles that organizations should adopt when recruiting and working with the physically challenged volunteers. The Charter has already been signed by over 120 organizations opening their doors to the volunteers with disabilities.

In 2010, C. Giannoulakis, C. Wang and D. Gra (2008) in their study focusing on the impact of volunteering on a person's career development concluded that "volunteering best contributes to the social adaptation of people of retirement age and persons with disabilities".

International studies by Miller, K. D., Schleien, S. J., Brooke, P., Frisoli, A. M., & Brooks III, W. T (2005) have validated the role of volunteer activities in the processes of integration and socialization of people with disabilities in the modern society.

As part of this research, a survey was conducted in 2018 by its authors, aimed at studying the social potential of volunteering by physically challenged people due to health impairment. The pool of respondents (75 people) was made of people with disabilities taking part in the Abilympics National Professional Skills Championship.

The research target were people with disabilities of the first, second and third disability categories aged from 20 to 45 years. The subject area of the research was volunteerism and volunteer activities in the modern Russian society, as well as its appeal for the disabled people.

The methodological basis of the research was constituted by the anonymous questionnaire survey of 78 respondents. The questionnaire included 19 questions, 17 close-ended and 2 openended, and a bio section containing basic information about the respondent: gender, age, disability category and education, marital status, level and source of income, as well as information about volunteer experience. The brief results of the analysis are provided below.

The age and sex breakdown of the respondents participating in the sociological survey was as follows: There were 32% of men and 68% of women aged from 20 to 45 years.

Having analyzed the marital status of respondents, we arrived at a conclusion that most of them do not have a family of their own and are not married yet. Thus, 64% of respondents are unmarried; 25.5% settled down to married life; 7.9% are divorced; and 2.6% are widowed.

It turned out that only 56% of epy respondents of both sexes out of the total pool had previously taken role in volunteering, and have the experience of volunteering at charity events, while 44% of respondents only conceive the idea of becoming useful in this field and getting involved as a full-fledged participant.

The analysis of the level of income and education of the respondents indicated that the majority of them have a vocational secondary education (63% of total), and the level of their monthly income ranges from RUB 10,000 to RUB 20,000 (the main source of income for most respondents is the disability pension).

The key questions of the questionnaire related to the following thematic blocks: the essence of volunteer work and its distinctive features; motivation and interest in volunteerism; experience of volunteering across different events and activities and its comprehension; upsides and downsides of the process of organizing volunteer efforts, along with the place and role of a person with disabilities in the work of volunteering organizations.

Having analyzed the choice of answers by respondents, it can be noted that the majority of disabled people adhere to a traditional understanding of the essence of volunteer activity and see it as an activity driven by moral and ethical values; an activity that brings unquestionable benefits to any community.

The definition "Exclusively selfless help to those most in need" was the most popular among the respondents (36%), the second most frequent answer was "Any work that is valuable to the community" (33%).

The option "Helping the nearest, but without harming own self and own interests" is ranked third in preference (17.3%). The fourth place (6.6%) is taken by the answer "Work in the spare time outside the main occupation".

As it turned out, the overwhelming majority (41.3%) are "just planning to become a volunteer in the future, and try to keep in step with the times". 21.4% of respondents "are just conceiving the idea, as volunteering is a serious pursuit, it is in my plans for the future", 21.3% gave preference to the answer "I am a beginning volunteer and have not yet accumulated significant experience in this field". And only 16% of the interviewed get engaged in volunteering on a regular basis.

The major motive for young people with disabilities to get involved in volunteering is "a desire to be useful and help others". This is the opinion of 42.6% of respondents. 20% of respondents turn out to care about what is happening in the country in general and their locality in particular. "A desire to apply accumulated professional experience" was indicated by 13.3% of respondents. The number of respondents who chose "a desire to implement own ideas, as well as to acquire new knowledge and skills"; "a desire to fill the spare time, lack of communication with others" was 9.3% and 9.3% respectively.

So, the option of "helping the homeless, orphans, disabled, seniors" was most preferred. It was chosen by 24% of respondents. It is important to note that those respondents, who already have experience of volunteering, making up 28% of total, were providing assistance to the above categories of population. The second most popular option among those who are only going to provide targeted assistance to others was the answer "activities aimed at the protection and preservation of animals and the environment" (18.6%). However, those respondents who have already participated in volunteer activities gave second preference to the option "organization and participation in preventive talks about the harm of smoking, alcohol and drugs" (14.6% of votes). It is important to highlight that this form of assistance is preferred by the older respondents (aged 31-40, 41 and older). In personal conversations with interviewers, they expressed a concern that today the Russian youth and the younger generation, unfortunately, are often exposed to such deviations. That is why presently they find the most sense in the conversations and actions aimed at prevention of such harmful habits.

The third most popular option, which was preferred by an equal number of respondents of all ages, 12%, was "organization of or participation in the activities which aim is to protect the interests of the most socially vulnerable population segments".

The activities for conservation and protection of the environment have received great attention from the present-day society. This is confirmed by a rather high percentage of preferences (9.3) given to the option "greening, garbage collection, cleaning of water bodies, participation in the cleanup events". Moreover, the necessity of cleanup events and removal of garbage was underlined by respondents of all ages: both those under 30 and over 40.

The next question of the research helped the authors to understand how much personal time (outside the main occupation) a respondent is ready to spend on volunteering. 9.3% of all respondents are engaged and ready to get engaged in volunteering on a regular basis, which means daily. This includes those who have already acquired strong professional skills and are able to provide highly qualified assistance to those in need.

25.3% of the survey participants volunteer a little bit less often, i.e. monthly. These are individuals of all age groups, who spend 1-2 days (often Saturday or Sunday) per month to volunteer and do so in their spare time outside the main occupation (study, job). The most common activities of this group of respondents include: visits to and patronage of orphan asylums, consultations, including via hotlines, funds raising for those in need through charity auctions and fairs. 29.3% of the interviewed take on the role volunteers on an annual basis. Having studied the range of their volunteer activities, we found out that there are those who donate blood once a year, those who every spring take part in the greening initiatives, cleanup events, annual charity marathons, etc.

In the light of the above, we asked the respondents what exactly, in their opinion, prevents the physically challenged people from volunteering.

It should be noted that the opinions of the interviewees were divided, but the majority picked the answer "own state of health" (32%). This is quite understandable, as 72% have the 3rd disability category, 23% - the 2nd category and 5% - the 1st category. 55% of the survey participants suffer from motor disabilities, which certainly limits their choice of activities. 25.3% complained about "the lack of information about the initiatives and events held" and pointed out that they would willingly take part in some charity events if they found out about them in proper time. 24% of respondents honestly admitted that they do not possess "necessary knowledge and skills to help others". 13.3% noted that they are prevented from taking an active role in volunteering by "the bias of others towards people with disabilities" and this poses a significant obstacle to their desire to become a volunteer. 5.4% named "communication difficulties in interaction with the others" as the main obstacle.

It is important to highlight that the analysis of the information collected by us through this research allowed us to achieve the announced purpose and to fulfill the defined objectives.

# 5 Conclusion

Thus, inclusive volunteering is a social phenomenon facilitating the social adaptation of disabled people in the community. The cumulative image of our volunteer shows that women have more proclivity for volunteering (68% of the total pool of respondents); the age range of the overwhelming majority of the survey participants varies from 20 to 40 years old (80%); the 3rd disability category is not an obstacle on the path to provide assistance on a gratuitous basis for 72% of respondents. The most common health problem suffered by our volunteers is the motor disorder (55%). A larger number of the interviewed, i.e. 63% of the respondents covered by the survey, have secondary vocational education. 64% of respondents are not married and 49% have a monthly income level of RUB 10,000 - RUB 20,000, which is in most cases a disability pension or a salary. At the time of the survey, more than half of the respondents already had some experience, even though little, of participation in volunteer projects (56%).

The results of the survey allowed the authors to articulate a range of measures to develop inclusive volunteering in Russia:

- Implement programs of individual and encouraging support for people with disabilities to facilitate their involvement in volunteer activities:
- Provide an accessible environment for volunteering practices involving people with disabilities, including

- specially equipped workplaces and barrier-free communication opportunities;
- Ensure support of initiatives of people with disabilities, develop the inclusive volunteering programs, including steps to attract, select and train volunteers with disabilities, organize the labour process in a sensible way;
- Create a positive image of inclusive volunteering, conduct awareness raising campaigns, create and spread inclusive volunteering insignia, inform the public of specific programs and their impact on the lives of people with disabilities;
- Encourage socially oriented non-profit organizations to consider implementation of new inclusive projects and programs, as well as incorporation of inclusive technologies into their existing projects.

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**Primary Paper Section:** A

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# RESEARCH ON PEDAGOGICAL DESIGN OF SOCIAL, MORAL AND PATRIOTIC DEVELOPMENT OF COLLEGE STUDENTS

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Abstract: This paper deals with a problem of design for social, moral and patriotic development of college students. Particular attention is drawn to the relevance of this problem in the modern trends of society development. Specific features in the design of educational process that help to reach the necessary level of social, moral and patriotic values have been identified and validated. The authors show the essence of social, moral and patriotic value orientations in promoting the civic engagement of a student, describe the structural components, and reveal the organizational and pedagogical conditions for the effective implementation of this process. On the basis of the conducted research the design model for the social, moral and patriotic development of students in conditions of secondary professional education has been offered

Keywords: social, moral and patriotic values, system of values, civic engagement, inner potential, secondary professional education, value development model.

## 1 Introduction

The period of each personality evolvement, characterized by a stage of maturation and active engagement in the process of socialization, requires comprehension of one's civic position. A person's belonging to this or that country by the right of birth or due to the place of residence is not a guarantee of the manifestation of a patriotic attitude to such country, expressed in the sense of duty, commitment and readiness to sacrifice personal interests for the common good. The definition of one's civic position implies the manifestation of personal engagement as a specific feature of a person's socialization. This position continues to evolve for the entire period of person's maturation. Psychological and pedagogical works, specifically dedicated to the topic of civic engagement, study its psychological mechanisms with account of social, moral and patriotic value orientations, conditions and ways of their development.

Relevance of this research lies in that the problem of development of civic engagement of college students in the development trends of modern society today is becoming a powerful determinant and driver of subjective human capabilities, and transformation of one's own self and the surrounding reality. That is why, over the recent years, the efforts to instill a sense of patriotism have acquired the growing social significance. Thus, the National Doctrine of Education in the Russian Federation emphasizes that "the system of education is meant to raise the patriots of Russia, the citizens of a democratic, social state governed by the rule of law and respect for individual rights and freedoms, with high morals and national and religious tolerance," which is why the teachers of professional education institutions should pay close attention to the content of education and upbringing.

# 2 Literature Review

In the field of secondary professional education, where the educational process targets mainly teenagers aged 15-18, the development of whose civic position receives utmost attention, a need has arisen to modernize the educational process form, ideas and technology. Teachers, psychologists, philosophers and sociologists, such as Abulkhanova-Slavskaya K.A. (1991), Asmolov A.G. (1984), Zimnyaya A.V., Bodenko B.N., Krivchenko T.A., Morozova N.A. (1999) and others focus their attention on this.

The value orientations of modern youth are reviewed in the works of Likhachev B.T. (1997), Mardakhaev L.V. et al. (2018)

and others. Military-patriotic education as a means of socialization of the younger generation is addressed in the works of Demidova E.I., Krivoruchenko V.K. (2006) and others. The forms and methods of educational work at educational institutions are reflected in the works of Yakimanskaya I.S. (1996) and others.

The process of patriotism fostering through education is examined by such modern researchers as Arkhipova M.V. et al. (2020), Bulaeva M.N. et al. (2020), Butorina T.S. (2004), Vaganova O.I. (2019; Vaganova et al., 2019), Grekhov V.V. (2009; 2011; 2012), Demidova E.I., Krivoruchenko V.K. (2006), Lebedeva O.V. (2003), Markova S.M., Narkoziev A.K. (2019), Pashkovich A.P. (2009), Petrova N.S. et al. (2006), etc. Scientists such as Geissin I.T. (2002), Goneeva V.V. (2002), Syrova N.V., Chikishev V.N. (2018) and others, have turned their attention to the question of patriotism as the most important component of the system of universal human values. The dynamics of value orientations at the present stage of society development is overviewed in the works of Gavrilyuk V.V. (2002).

However, in the opinion of many researchers, there are certain weaknesses in the system of education for middle-level specialists, which are exhibited in a failure to take into account the individual characteristics of students, a gross approach to the educational process, administrative and bureaucratic style of organization of the educational process.

#### 3 Research Methodological Framework

The research was conditioned by the existing contradictions between the need of a modern system of secondary professional education in a holistic model for social, moral and patriotic development of the college students and the lack of scientific and pedagogical principles corresponding to the new age.

The research hypothesis is rooted in the assumption that it is possible to build a pedagogical model for fostering the civic engagement of the college students through the formation of social, moral and patriotic value orientations provided that organizational and pedagogical conditions for the model implementation get identified and a didactic support is ensured for the educational process designed to foster civic engagement of students through social, moral and patriotic value orientations.

The research purpose is to substantiate the need for building a model of the educational college space that is effective with regard to facilitation of the social, moral and patriotic development of students.

The research objectives are:

- To reveal the essence of socio-moral and patriotic value orientations behind the civic engagement of a student and describe its structural components;
- To determine the organizational and pedagogical conditions for implementation of the model for fostering student's civic engagement;
- To develop didactic support for the model for fostering student's civic engagement.

For the research the following methods were employed:

- Theoretical: study and analysis of regulations in the field of patriotic education, analysis of psychological and pedagogical literature on the problem under exploration, generalization of pedagogical experience, comparison, systematization, method design, forecasting of research results;
- Empirical: sociological survey, analysis, systematization and interpretation of data.

#### 4 Results and Discussion

# 4.1 Revealing the essence of social-moral and patriotic value orientations behind the civil engagement of college students.

The modernization of all levels of education that is underway in Russia suggests a somewhat different approach to the training of students as compared to the past. Requirements for high-quality training of college students have been and remain the main guarantor of the successful functioning of the structure of secondary professional education, which integral part is vocational training and education that implies active civic position of students, based on their social, moral and patriotic orientations

When analyzing the problem of personal development, V.V. Grekhov (2011) emphasized that the development of social, moral and patriotic orientations is "a complicated and long process, which often continues throughout the entire life" (p. 43). However, this process is vital for socialization of young people in the society, since it is through socialization that the younger generation learns to adhere to the core spiritual values.

Monitoring of the current state of patriotic education of students, social and pedagogical diagnostics, and data from sociological studies of recent years show not only a radical change in the value priorities among young people in the country, but also their deep differentiation by region, social affiliation, level of education, age, etc., which cannot be ignored in the informal organization of educational work.

Certainly, not every social and pedagogical diagnostics may be classified as monitoring. While, almost any monitoring of the educational process within a systematic sociological research may, in its evaluation essence, form the basis for sociopedagogical diagnostics. It should be borne in mind that the priority purpose of diagnostics for identifying the level of social and moral values and the patriotic position of a student is a comprehensive study of the student's personality with the further development of targeted educational models and targeted programs in various areas of educational and pedagogical work in the institution of secondary vocational education.

One of the most promising dimensions of educational work at the present time is based on the principles of education concentrated around a zone of student's immediate interests. New opportunities acquired by students based on their personal interests have impact on their professional abilities, which are most likely to be manifested in their zone of proximal development. Thus a major impetus is given to the internal, spiritual and moral development of students, gradually transforming the process of teaching and education into selflearning and self-improvement. The educational process should be structured in such a manner that it's primary focus is not on shaping professional competences which may be acquired by a student on his/her own, or probably under the guidance of experienced teachers, but on building the individual trajectory of professional and personal development based on personal interests, knowledge and skills. Such an approach through education, training and self-improvement may contribute to better self-organization of students being central to their selffulfillment.

Thus, according to L.S. Vygotsky (2002), "a zone of proximal development" is created, which is based on transformation of immediate interests and the near-term subject - subject interactions between a teacher and a student, fueling perspective personal development. A new principle, which we call "orientation towards a zone of immediate interests", helps to further develop L.S. Vygotsky's theory of a zone of proximal development and extend it to the sphere of education (p. 586). As is known, it justifies the effectiveness of training which precedes the development and thus encourages its advancement by revealing the capabilities of a student.

In our opinion, in the sphere of youth education, there is an obvious need to shift from ideological goals and methods of

education to utilization of the inner potential of each student: their scale of values, hobbies, social demands and needs. In other words, modern time defines content, principles and approaches to educational work in secondary vocational education institutions. Therefore, before producing an educational program, it is necessary to explore a target of education, which is a young person.

For identifying the level of patriotism and the presence of migration intentions among the students of the 1<sup>st</sup> and 2<sup>nd</sup> years of study in Nizhny Novgorod colleges in 2019 the team of authors conducted a sociological survey. The survey covered 127 students of Nizhny Novgorod Arts College, Nizhny Novgorod Industrial College, Nizhny Novgorod College of Household Services, Department of Secondary Vocational Education of Kozma Minin Nizhny Novgorod State Pedagogical University.

Students were offered to complete a questionnaire which included 16 questions, such as:

- Are you following the current political developments in the country:
- Are you ready to relocate to another country for permanent residence:
- Please, give the reasons why you are ready to leave your country, etc.

The conducted monitoring revealed that:

- 22.0% of college students "would like to relocate to live and work in another country";
- 24.0% found it difficult to answer this question.
- 54% just over half of the respondents want to live in Russia.

The main reasons for quite a high level of intentions to migrate from their home country among young people are as follows:

- "Low standard of living" (45.0%),
- "I don't feel safe here" (24.0%),
- "I will not be able to fulfil my potential in Russia" (12.0%),
- "Low level of social culture" (9.0%).

This choice by talented, professionally promising young people is undoubtedly influenced by the outflow of domestic scientists from Russia. Fortunately, this trend has recently changed for the better.

The young generation's consciousness and value orientations have been influenced by the assertion of market values in our country that led to changes in both economic relations and the entire system of social relations. The system of value orientations has undergone significant changes, and the material welfare for the majority of people has become the goal of life. It should be noted that a society committed to build a system of social relations based on market relations undoubtedly activates the human potential. But it is activated through competition, rivalry, profit-seeking, which results in the worldview of a particular type. Certain portion of adolescents demonstrate the lack of a sufficiently clear picture of the world, lack of understanding of their place in the world, no established system of moral values, norms and attitudes, and an egocentric model of behavior is created.

Over the recent decades, the young people's interest to such values as work for the good of their country and patriotism has plummeted. That's why the state is investing much effort to promote the patriotic education of the younger generation and instill social and moral values in young people.

The problem of social, moral and patriotic education that has been in the center of our study is far from being new to the Russian pedagogical thought. But the real goal of socio-moral and patriotic orientation of students at this stage of social development is the development of a socially engaged, morally integral person, confident in their future, clearly realizing the

prospects for personal development and professional growth in their own country.

# $\begin{array}{lll} \textbf{4.2 Determination} & \textbf{of} & \textbf{Organizational,} & \textbf{Pedagogical} & \textbf{and} \\ \textbf{Didactic Conditions} & & & & \\ \end{array}$

Due to the problem discussed above, the organizational foundations of work with students for the purpose of their patriotic development in the college space have been developed, including interrelation with the integral system of training and education with a focus on personal value orientation for designing the content of educational process; creation of the appropriate educational environment; provision of various types of pedagogical support to students, observance of priorities in their major activities.

Any didactic system as a coherent structure can only function effectively if certain conditions are met. Based on the views of O.A. Abdullina (1990) and V.P. Bespalko (1998), we have articulated didactic conditions conducive to a more effective implementation of the design model for fostering the civic engagement of students by social, moral and patriotic value orientations:

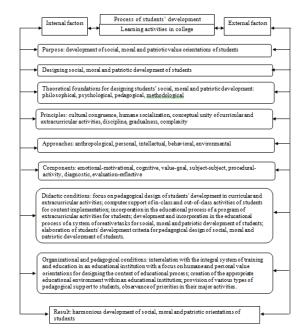
- Orientation towards pedagogical design of students' development in curricular and extra-curricular activities;
- Creation of a range of pedagogical methods based on the modern computer technology for implementation of the content:
- Incorporation in the educational process of a program of pedagogically useful activities for students' free time;
- Organization of activities with a patriotic orientation to be carried out by public organizations;
- Elaboration of development criteria for pedagogical design of civic engagement of students through social, moral and patriotic value orientations.

Thus, when designing social, moral and patriotic development of students, V.V. Grekhov (2011) proposed a model for extracurricular work with students, consonant with their curricular activities due to the conceptual unity of these components of the educational process in college.

The proposed model is a holistic, open and dynamic structure which makes it possible to give direction to the process of fostering the civic engagement of future specialists by shaping their social, moral and patriotic value orientations, and to match the desired goal of education with the end result.

Schematically, the pedagogical model is shown in Figure 1.

Figure 1 Model for social, moral and patriotic development of students in the context of secondary professional education



Source: Grekhov, 2011, p. 62

The proposed model for social, moral and patriotic development of college students includes the key design components of the process for fostering the civic engagement of a person and represents a social and pedagogical mechanism. Patriotic education is a multidimensional activity, which is systematic and directed at the mobilization of personal potential. The main idea of the proposed model is the activation of students' civic position through the unity of internal and external factors of the educational process, which includes the principles, approaches and components of the college's educational system.

The model includes such essential features as balance, manageability and controllability of results. At the same time, the most important factors are the didactic, organizational and pedagogical conditions that largely determine the success of the model. Undoubtedly, the implementation of the goals, objectives, principles and methods underlying the model should contribute to the desired results of the educational process in the secondary professional college, the undertaken learning activities, and then career activities. It is in the unity of these two components that a harmonious personality, demanded by the modern society, can be raised, whose priorities include a conscientious attitude to work, a strive for professional self-fulfillment, a sense of duty and civic responsibility to their country.

# **5 Conclusion**

Based on the analysis, it can be concluded that achievement of high social engagement of students through the educational process in college implies systematic and dedicated social and pedagogical efforts, which help a student to become an actor in the conscious learning process. The proposed model for fostering the civic engagement of students through social, moral and patriotic value orientations, which includes a goal, conceptual ideas, theoretical approaches and principles of personal development, during professional training in the conditions of secondary vocational education will allow to achieve the desired outcome. The paper reflects that the combination of organizational, pedagogical and didactic conditions for design of a model to foster the civic engagement of students during their professional training will contribute to the advancement in development and progress in learning activity.It is especially emphasized that the social and pedagogical design of the content of education and training for fostering the social engagement of students through social, moral and patriotic value orientations should be systematic and complex.

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**Primary Paper Section:** A

Secondary Paper Section: AM, AN

## TEACHER AS A HUMANIZER OF DIGITAL TECHNOLOGIES IN MODERN EDUCATION

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Abstract: In the paper, a complex of problems associated with the impact of digital technologies, distance ones included, on the efficiency of education are discussed. The analysis of development stages and objectives of education in the history and culture of Homo Sapiens is presented. Particularities of the primitive, agrarian, industrial, and digital educational systems are singled out. Consequences of digital revolution, causes of decrease of the efficiency of traditional industrial class-and-lesson system in the modern conditions of the 21st century are analyzed, and the main trends of digitization and technification of the pedagogical process are identified. The analysis of opportunities and risks brought about by digitization of education is given. Recommendations for teachers on humanization of education and upbringing are suggested.

Keywords: digital technologies, education, humanism, paradigm of education, spiritual dimension, culture, Man.

## 1 Introduction

The information post-industrial era puts Man into a singular life situation. The digital way of life builds up on the previous industrial one. In conditions of the digital "wave" or new phase of historical development, earlier systems (including the traditional educational one) are less efficient. At the same time, the forming digital educational system has not elaborated its efficient approaches and solutions in learning and upbringing yet. This was demonstrated brightly by the situation with distance learning during the outbreak of Covid-19. Alongside this, people are making sure that one of the main problems brought about by technologies is dehumanization of the pedagogical process. Students and teachers have to spend more effort and time for performing educational tasks, while the efficiency remains at the previous level at the best. This speaks about technologies working not for Man but against him. In these conditions, all participants of the pedagogical process, and teachers first of all, have to act as humanizers of digital educational technologies.

The present days are witnessing the new information and technological revolution. The world of digital technologies assimilates the reality, with changes touching on the sphere of education, too. Among them there are: the lack of consistency and stability or continuity of change; the complexity of planning and vision of the future; the ruin of traditions, crisis of values and ideals; virtualization of life; mobility of life; the problem of information noise; gamification of the life of Man, and others.

Man faces the danger of losing himself. This problem affects the system of education, too. Technologies are used not so much for the sake of Man (with the result of improving overall efficiency, conditions of studies and work) rather than for the technologies themselves. As a result, the educational process gets dehumanized.

# 2 Literature Review

The theoretical and source studies basis of the research consists of scientific works in the following domains: works on anthropology, history, general philosophy dedicated to the problem of main stages in the development of mankind (Dyakonov, 2007; Toffler, 1970, 1980; Harari, 2014, 2016, 2018; et al.), works on humanist philosophy, psychology, and pedagogy (Fromm, 1955, 1965, 2005; Sommer, 2019; Frankl, 2000; Amonashvili, 2017; et al.), religious philosophy

(Berdyaev, 2001; Ilyin, 2015; Zenkovsky, 1923), works on the problem of the future development of Man, civilization, and the system of education in conditions of digital society of the 21st century (Robinson, 2011, 2013; Epshtein, 2016; Peterson, 1999; Kurpatov, 2018; Soltovets et al., 2019; et al.), and works discussing teachers and researchers training problems (Zhukova et al., 2019; Parshina et al., 2019; Shukshina et al., 2018a; Shukshina et al., 2018b; Strielkowski & Chigisheva, 2018).

The analysis of scientific literature enables the authors to make the following conclusions.

In its history, mankind has passed several phases of historical development which have formed a certain way of life of Homo Sapiens. 4 phases can be distinguished: the way of life (civilization) of hunters-gatherers, the agrarian way of life, the industrial one, and the modern, information one.

The contemporary digital world has changed people's life and is technifying the system of education. This manifests itself in the following signs: 1. Education is becoming increasingly less of a free right and more of a duty. 2. Technologism raises the secondary questions of education ("how?") to the class of the most important ones while pushing the essential problems from the point of view of humanism ("what for?" and "what?") to the background. 3. Technologism introduces the notion of norm (standard) and, accordingly, of external objective assessment. 4. As one of the major criteria of successfulness, technologism introduces the students' individual adaptation to formal and normative requirements. 5. Technologism proceeds from the principle of maximality while humanism proceeds from the principle of optimality. 6. Technologism participants of the pedagogical process and educational institutions into better and worse ones according to an external norm. 7. For technologism, education is the sphere of services while it is the sphere of human relations etc. for humanism. 8. Technologism "prevents" man from fulfilling his mission being the maker of his own life and the creator of culture for the entire society.

# 3 Research Methodological Framework

The objective of the paper is to analyze risks of dehumanization of the pedagogical process in conditions of digital education as well as to search for ways of overcoming these risks and to elaborate recommendations for teachers on humanization of education and upbringing. The following tasks have been set for achieving this objective: identifying the stages of the rise and development of the educational system depending on the way of life of Homo Sapiens; describing technological consequences of information revolution in the process and system of education; analyzing changes in and efficiency of functioning of the traditional industrial and humanist system of education in the new digital conditions, conducting the survey of students and teachers on this problem; creating recommendations on leveling out the risks and humanization of digital education.

For confirming or ruling out the expected risks, the survey of school teachers of Saransk city (156 people, September-October 2019) and students of various focus areas and profiles of training of M. E. Evsevyev MSPI, N. P. Ogarev MPU, Moscow City Univeristy, and Voronezh Institute of High Technologies (509 people, March-April 2020) was conducted. The survey covered questions of digitization of education, distance learning, their effectiveness, and particularities of use. Based on theoretical studies and the survey, recommendations for participants of the pedagogical process on overcoming the identified risks of digitization have been elaborated.

For accomplishing research tasks, the authors used theoretical research methods: analysis, synthesis, comparison, systemizing the materials on the research problem, forecasting, as well as empirical research methods (survey).

#### 4 Results and Discussion

Based on the theoretical analysis and experience of pedagogical activity, the authors have singled out 4 stages of historical development that have formed particular ways of life and systems of education: the way of life (civilization) of huntersgatherers, the agrarian way of life, the industrial one, and the modern, information one. Each subsequent one was constructed on the basis of the previous one, "building up" on it.

#### 4.1 Hunting and Gathering Way of Life

Around 70 000 years ago, in the period of cognitive revolution, Man began to not merely adapt to the world of nature in which he lived. He began changing the natural surroundings and creating new artificial world of material and spiritual objects – the world of culture, the values of which changed the very Homo Sapiens and literally "demanded" taking care after themselves, preserving, and passing on to further generations. So the "cultural tradition" was born which continues into nowadays. As for education, it became the process of passing the torch of culture from generation to generation.

Thus, as early as in the primitive society, Man faces two objectives of education. The first one is inherent in animals and "comes after" Homo Sapiens throughout his entire evolution — this is learning for survival in the severe world of nature and society. The second one emerges as the culture does — this is preserving and passing on the accumulated "cultural tradition" from generation to generation.

So, as the world of culture (both inner and outer) appears, Homo Sapiens begins creating new maps of reality (Kurpatov, 2018) using which he explains and transforms the nature. As subsequent kinds of activity emerge, artificial cultural maps of reality become even more intricate and complicated.

# 4.2 Agrarian Way of Life

Some 12 000 years ago Homo Sapiens begins settling down on land. Particularities of the agrarian way of life can be summed words "limitation", "cyclicity", "consistency", "accumulation" – of the space, time, labor, family, resources, etc. Here are but a few main aspects of this era. First, agriculture became the main activity leading to the sedentary way of life. Now people were busy working on a permanent place, they were bound to their land plots, they did not leave their settlements for too distant places and too long a time, and they preferred consistency and predictability over change. Second, they began harvesting and storing the grown food products, breeding animals, which led to appearance of excesses, accumulation of resources. In its turn, this was one of the factors for the emergence of private property and social stratification. Third, a large stable family consisting of several generations and a great number of relatives became the main unit of the society. Within the family, a clear hierarchy formed; this was essential for survival, increasing the number of the family members, as well as for material accumulation of resources in the challenging natural conditions. Fourth, social stratification and income inequality emerged. The greater mass of people did agricultural work, but there were also gatherers, hunters, and warriors, priests and the nobility. Gradually, there appeared merchants and craftsmen, and as the writing system was created, literate people who were used for the state and community purposes. The hierarchy in the society formed in a similar manner to the family one. Fifth, this determined the limited division of labor, but in general, the production and consumption processes were united. Although the vast majority of people (peasants) did hand over their products to other social groups (or exchanged them), at the same time, they used the products of their own making. Sixth, time was perceived in a cyclic manner, and the structure of life was timed to the natural phenomena within one year (seasons, floods and droughts, migration of animals and birds, etc.). Unlike hunters-gatherers, peasants had to think about the future and plan for several months or a year ahead. Seventh, a glance into the future, the view of his own boundaries (understanding of his own limitation), as well as of the borders of the world and the society formed in Man a transcendent idea about the world of the "due" which did not coincide with the "existing" world. So, the world in the ideas of Homo Sapiens was subdivided into the real and the ideal one. Which is the most important, the agrarian way of life led to Man working even harder building the artificial world of culture, accumulating, preserving, and passing on as heritage his material and spiritual values, having paid for this with the free time of his own life.

It is back then, and later as cities (polises) and states emerged, that transmission of the cultural tradition became the most significant objective of education. This is associated with the objective situation of accumulation of cultural values. Family became the home "garden", "school", and "university," and it had to organize the process of the young generation's moving into adulthood and professional training for life within their social or income-based status. Not only had adults to pass on the experience of activity (the educational aspect), but they also had to introduce the young into the space of life, make them a part of the integral society with its history, myths, legends, customs, ceremonies, etc. (the upbringing aspect).

As the writing system was created ( $70\ 000-5\ 000$  years ago), the process of learning became more systemized, artificial, and authoritarian. Education was given not for the sake of individual, his or her rise in the society, not for the sake of fulfillment of the built-in potential, but for transmitting the culture from generation to generation, maintaining the unity of the society in the past, present, and future history.

Regardless of the content of inscriptions (household and mathematic calculations, riddles and legends, laws and codes, etc.), of the type of writing (Chinese inscriptions on turtle plastrons, stone tablets from Mesopotamia, clay tablets from Shumer, Egyptian hieroglyphs, the Crete writing, and so on), learning this art required immense efforts of both teachers and students. As children were perceived by adults as nothing more than a means for solving the set problems, they were completely subjected to the systemic organized process of training and they had no rights. The teachers were distinguished as demanding, strict, and punishment (including the corporal one) was a norm for that time.

Schools for learning the writing system (edubbas in Mesopotamia, chanceries or scribal schools in Egypt, etc.) were available for a narrow circle of people only. Just like other schools (the military ones, the schools of merchants), they were designed to mould a person as a social unit, to adapt the person for living for the benefit of the society and the state.

It is hard to call such education humane. Certainly, teachers, mentors, and parents, all the more so, could treat children leniently, with a protective wish to help them perform the set task. However, the adults of that time did not have the slightest idea about having to help children find their place in life, express and fulfill their own potential, and the like. Man was only perceived as a tool for accomplishing group, social, and state tasks.

The period from 800 to 200 BC sees the next "cultural takeoff" in the process of development of Homo Sapiens. This time span was termed the "Axial period" by Karl Jaspers (1991): "The most extraordinary events are concentrated in this period. Confucius and Lao Tse were living in China, all the schools of Chinese philosophy came into being, including Mo-ti, Chuangtse, Lieh-tsu, and a host of others; India produced Upanishads and Buddha and, like China, ran the whole gamut of philosophical possibilities down to skepticism, to materialism, sophism and nihilism; in Iran Zarathustra taught a challenging view of the world as a struggle between good and evil; in Palestine prophets made their appearance, from Elijah, by way of Isaiah and Jeremiah to Deutero Isaiah; Greece witnessed the appearance of Homer, of the philosophers - Parmenides, Heraclitus and Plato - of the tragedians, Thucydides and Archimedes. Everything implied by these names developed during these few centuries almost simultaneously in China,

India, and the West, without any one of these regions knowing the others"

For the first time ever, this powerful spiritual movement independently poses the question about the essence of Man, his place in the universe, his inner world, alongside the questions about the structure of the very world. So, in the middle of the objective reality, there emerged a "humanist little island" of the inner Man striving to learn himself in the world and the world in himself and to bring these two to the harmonious unity. Just like the artificial world of material culture (of the existing) built up on the natural world, so in the culture itself, there emerged the inner ideal of the imaginary (the due). It was represented by myths and stories, theories and calculations, diagrams and wordings. In his aspiration to explain the world around him and to know the truth, Man created, to put it in the modern words, the "augmented reality" of culture; quite frequently, this led him away from the objectivity of nature and led to the transcendent world

It is in this time that Man faces a conscious needs and task of learning himself. It is all about what his inner "I" is, what his Personality is alongside the external biological and social status. The value of Man and Personality becomes recognized, but humanism is not autonomous yet, it is in the depths of religious and philosophical doctrines.

Regardless of the principles underlying the public worldview (animist, cosmocentric, or theocentric ones), the ideas of humanist upbringing and education of Man as an independent active individual were present in the cultures of Buddhism, Daoism, Confucianism, the philosophy of the Ancient Greece, Judaism, Christianity, and Islam. Up to the Renaissance epoch, humanism was not the leading philosophical principle (the Nature, Space, God, Society are always the reason, the top value, while Man is secondary and inferior towards them). However, it was expressed in the light of theological and philosophical doctrines.

The Renaissance epoch in the Western Europe marked the beginning of transition from the theocentric worldview to the anthropocentric one. In this time, the ideas of humanism begin to go into the foreground, becoming independent in the 20th and 21st centuries. The humanist worldview presents Man as an objective and not as a means, it gives him the leading role both in his own life and in life of the entire mankind and the planet Earth. This shapes a new ideal of personality featuring such qualities as independence, freedom, businesslike manner, and activity, places him above the entire animal and plant world while also gradually distancing away from the "divine" world in the daily earthly life. Secularization (separation) of the scientific knowledge from religion led to the development of sciences and methods of rational learning of the world: in astronomy, physics, and chemistry, in algebra and geometry, in philosophy, biology, and medicine, and, certainly, in pedagogy. Rendering Man, his "I", his inner world of culture autonomous has become the reason and the main driving force behind the humanist values and learner-centered education.

Moreover, independence and freedom bring Man to subjectivism of culture (the philosophy of relativism), which is expressed in the formula "the objective truth = the total of subjective opinions". The truth (this concerns first of all the sphere of social relations) is now a composite of subjective opinions, appraisals, wishes, and actions of autonomous individuals. This particularity of humanism is described by Yuval Noah Harari (2016). As seen by humanism, in esthetics, the notion of the "beautiful – ugly" is determined by the taste of Man, in economy (a good product – a bad product) – by the customer's wish, in politics – by views of the voters, and in ethics (the good vs the evil) – by subjective opinion of Personality.

In spite of the development of natural and exact sciences, the philosophy of rationalism, art aimed at understanding the essence of Man, the new stage in the sphere of education only begins with the development of factories and plants and, accordingly, the urban growth.

## 4.3 Industrial Way of Life

It emerges and spreads gradually, beginning approximately from the 18th century and having becoming mass by the late 20th century. The development of industry and science (first of all in the countries of Europe and the USA) leads to reduction of the percentage of the population leading the agrarian way of life. First men, and later women go to work at the urban factories and plants, offices and companies. It is then that the class-and-lesson system becomes widespread.

Industrial revolution (and the so-called office revolution in the 20th century) came to destroy the settled agrarian family which had remained the most wide-scale form of human communal life until the era of large plants and factories in metropolitan cities. The problem was not in the family becoming nuclear ("bigenerational") in the era of industrialization and urbanization. The urban family, unlike the agrarian one, ceased to have the shared center of "labor" attraction which was the land for the agrarian family. Certainly, living on the land is extremely difficult (permanent struggle with the natural environment), but efforts of all the members of the agricultural family are focused on the shared objectives and results, accordingly. As a rule, with all its difficulty, joint activity united the people and rendered them mutually dependent. The family relied not merely on love but on the shared activity without which no collective was possible. In such families, children were brought up within working together, albeit not easy.

As a result of industrialization, the first to exit the common joint family activity were men who went to factories and plants. The next were women to leave for plants first, and later for offices. Children got mass schools and kindergartens. So the single center of family union was ruined.

The authors have already mentioned that industrialization was a consequence of secularization and development of various (first of all natural and exact) sciences. Among them, the sciences about Man (philosophy, psychology, and pedagogy) had their own place to occupy. Homo Sapiens came to be perceived as a reasonable being (at least, as a result of correct upbringing and socially organized life). So, the eternal advance of the world around him in the civilized competition with others, self-improvement, and self-celebration became his vocation. This had an effect entirely on the way mass school system was organized as well as on the theoretical science about upbringing and education which V. V. Zenkovsky (1923) termed as "the pedagogy of intellectualism".

The class-and-lesson system was the child of industrial production organization: "Raw materials are turned into products through sequential stages, each with some form of testing as a gateway to the next. Mass education was designed as a series of stages, from elementary school to high school to higher education. Students are typically organized into separate year groups and progress through the system in batches that are defined by date of birth" (Robinson & Aronica, 2016). The linear production technology was transferred into the system of education. All students are subdivided into grades accrording to their age and sometimes abilities. The lessons are held within strictly allotted time (30-45 minutes) with short and longer breaks. Each class is dedicated to a certain subject and topic, all of them are distributed according to a schedule and united into larger cycles with the final check of knowledge. So, just like the future product passes through the assembly line, so the children go from the first grade until their graduation from school. The class-and-lesson system promotes competition, and according to the external objective assessment, it encourages successful students more and those lagging behind less, while students have to learn adapting to the uniform requirements and conforming to them for achieving higher results.

This was the end of the "agrarian" education era and the beginning of the new one. The authors call it the "industrial and humanist" one because this name reflects two main objectives set for the mass class-and-lesson system. The first one (already mentioned) is transmission of the cultural tradition, and the

second one (emerging back in the axial period but only nowadays going mass) is to unlock the potential of Personality, its creative self-fulfillment. While the first objective is the external one aimed at the development of the society (object), the second one is targeted at Man, at learning and fulfilling oneself (subject) (Figure No. 1).

Figure 1 Objectives of education in the history of Homo Sapiens



Source: the authors

In the industrialization era, the system of education got into a complicated controversy. In the economic and social viewpoint, the task of education is to "supply" trained people, ready "units" for industry and agriculture, for the economy and politics, the society and the state. These people have to be trained by the mass system of education with the maximum result and the smallest loss of effort and time. The class-and-lesson system used to be and still is now ideal to perform these requirements. Meanwhile, in terms of humanism, a more important objective has emerged for education - creating favorable conditions for an Individual to gain himself or herself, to unlock the individual's potential, to go up the social ladder, and to accomplish creative fulfillment for the benefit of people. Thus, both then and now, school has been in the gap between the traditional and humanist objectives of education. The former was dictated by objective tasks of development of the agrarian and industrial society, and the latter - by the scientific knowledge about the nature of Man, children in particular, emerging in the period of the New and Newest time. Thus, the educational process can be considered and built proceeding from these two paradigmal standpoints the traditional one (social and technological) and the humanist

On balance, the industrial system of mass education permeated with humanist ideals has performed the set tasks successfully up to the 21st century. Humanist ideals, faith in man, his rationality, and the eternal advance of the world pervaded the spirit of industrial education. However, at present, the system has faced a most powerful challenge — the new digital technologies "attacking" simultaneously both the educational traditions of the industrialism era and the humanist values.

# 4.4 Digital Way of Life and Technological Consequences of Digital Revolution

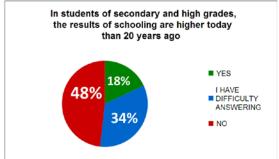
At present, the industrial and humanist paradigm of education gives way to the information and digital paradigm of education. Why and how does it happen?

Owing to the development of information technologies and the virtual space, it has become possible to store, process, and send to large distances to an unlimited quantity of users immense volumes of information, as well as to use artificial intelligence (AI) for accomplishing a large number of educational tasks. AI has already learned to learn independently and to form based on the information data (big data) analysis solutions for the emerging problems. So, it does not only help in studies, but it performs the tasks for students while students with pleasure use its capacities instead their own. For example, this is the case with automatic translation into foreign languages, figuring out mathematical problems, compiling portfolios, even drawing, and so on. Moreover, software solutions offered by corporations (Google, Yandex and others) are built upon the profound cognitive analysis of human thinking. This is why these solutions are relatively efficient. They help save time and effort in performing the tasks of learning. As for the productive capacity viewpoint, a serious controversy arises. On the one hand, using AI, one gets an opportunity of quickly creating a product of activity (translation, drawing, solving a problem, etc.). On the other hand, is this product a result of human creative activity? What exactly is created by a human and what is created by AI? When does artificial intelligence start to prevent Man from acting productively? At what stage will it completely take all possibilities for creative activity away from Homo Sapiens?

### 4.5 Analysis of Changes in and Efficiency of Functioning of the Traditional Industrial and Humanist System of Education in the New Digital Conditions

Nowadays, the traditional class-and-lesson system has gotten under pressure of digital technologies which reduce the effectiveness of education and dehumanize it. To confirm the idea, the authors conducted a survey of teachers of Saransk city having the work experience ranging from several months up to 42 years (Figure No. 2). The teachers were asked to answer 15 questions on the problem of the influence of technologies on humanization and effectiveness of the process of learning. Among the questions, there was the following statement: "In students of secondary and high grades, the results of schooling are higher today than 20 years ago". 48% of the teachers disagreed with this statement, 34% had difficulty answering, and it was only 18% who agreed.

Figure 2 The survey of teachers of comprehensive educational institutions of Saransk



Source: the authors

Among the young teachers (having the work experience of 0-2 years), the percentage of those answering in the negative is lower (36%) while that of positive answers is only slightly higher (21%). As for the teachers having 10-19 years work experience, 11% answered this question in the positive, 50% – in the negative, and 39% had difficulty answering.

So, the class-and-lesson system turns into the digital one, which is expressed in technification thereof. The changes touch on all aspects: the administrative one, the educational one, and the upbringing one.

As for the side of organizing the pedagogical process (the administrative one), the process of information technification has led to the opportunities of automating management of the processes and, accordingly, controlling. This involves systems of online learning having step-by-step tasks and tests, monitoring (e.g., the USE), marking notes online (digital diary), checking the attendance (checking the magnetic cards at the entry), and so on. There are no reasons to believe that the technologies emerging tomorrow will not be applied in the system of education, as they downright "tempt" with a wish to automate the pedagogical process, to render it technically perfect, like an ideal mechanism which never fails and so guarantees the top result.

The result of enhancing the technological constituent was the focus on controlling the processes and results first of all. Certainly, this dehumanizes the process of education and makes its participants (pedagogical workers, students, and parents) adapt to the new emerging conditions and requirements. The logic suggests that technical capacities have to not merely help in organizing the pedagogical process, they have to become a

means to assist Man in solving creative educational tasks. Meanwhile, the actual practice is that it is students, teachers, and parents who become a means for the emerging technical innovations and new solutions. This is how the idea of humanism is substituted for the technocratic digital ideology.

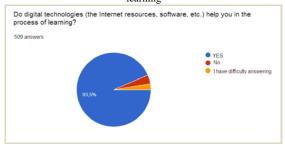
Technologies also produce a most powerful impact on the process of education itself (introducing Man to the world of culture of Mankind, rendering Man more cultural). First of all, this is manifested in destruction of traditions of the industrial and humanist system. In it, the Teacher was the authority beyond exception, nearly the only bearer of the knowledge the student needs for the future life. The knowledge obtained guaranteed the "successfulness" of Man in the society: employment, a decent level of life. Learning was built according to the scheme of the traditional combined lesson at which the Teacher passed on the material, the student perceived and reinforced it and then demonstrated the teacher the level of absorbed knowledge and developed abilities and skills. The class-and-lesson system relied more on the verbal methods of learning, it implied the competition between students and the presence of objective assessment. However, many teachers, first of all didactics specialists, included into it the problem and search, developing methods of learning (including those based on reference signals) and joint creative activity successfully.

at present, technologies undermine this educational tradition. Information resources (not just Wikipedia) replace teachers in the multitude of questions, students are "googling", and the educational communication consists in sending and receiving materials and links to resources. The need of not only teachers but also students' communicating with each other is being lost, social and educational links of the real world are getting broken, with virtual communication coming in their place. As a result, the motives of learning are changing (What for does one have to listen to a new lecture if the teacher can share it in the Internet? What for are the teacher's explanations at the lesson if you can watch them at a video hosting? What for does one need to call a deskmate if one can ask Alice?). As a consequence, the traditional industrial scheme of the combined lesson stops working. Dehumanization of the process of education manifests itself in the fact that Man having received the access to an immense inexhaustible volume of information ceases to be the creator of one's own inner world of knowledge, ideas, concepts, and systems. Meanwhile, creativity in the broad sense of this word is the vocation of man, and the humanist objective of education consists in bringing Personality to this objective. Do the modern educational technologies do it? Do they help in establishment of the creative Man?

As for the upbringing side, information technologies destroy traditional approaches and humanist values, too. Teachers (class masters) have gotten a serious competitor - the Internet with its entertaining content and communication resources. This is manifested first of all in the fact that it is difficult for one to motivate children (whipping them into shape is always there), to interest, involve them, to lead them "offline", to creatively spark and lead them after oneself, to be an authority for them. Who helps students answer the fundamental questions of their own being: "with who should I be?", "who should I be?", "what for should I exist?", "what should I be like?", "how to exist?"? Is it the class master? A teacher of authority? Parents? Peers? Mass media? The Internet? The question remains open. Today, the traditional upbringing forms cease working efficiently, they need "modernizing", combining the virtual and the real worlds skillfully. It is important for teachers not only to be "online" with students by means of social networks, messengers, not only to use the Internet as an assistant in communication, but also to apply these means for solving humanist pedagogical problems and questions.

New information and digital paradigm of education is being formed rapidly and without people's participation, or, more exactly, without the participation of teachers. It is being formed by the new digital technologies while people are adapting, which has not been very successful so far. Let some results of the survey of students concerning the topic of efficiency of distance digital education be given. Most students think digital technologies, including software, are helpful in the process of learning (Figure No. 3).

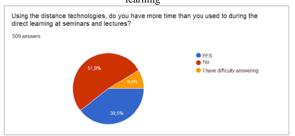
Figure 3 The results of survey of higher educational institution students on the problem of education digitization and distance learning



Source: the authors

However, this is where positive opinions on digital learning, the distance one included, run out. The vast majority of the students note they have had less time as they started working with distance technologies than they used to (Figure No. 4).

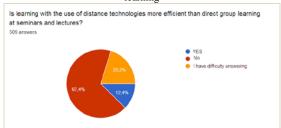
Figure 4 The results of survey of higher educational institution students on the problem of education digitization and distance learning



Source: the authors

The questioned ones also note lower effectiveness of learning with the use of distance technologies (Figure No. 5).

Figure 5 The results of survey of higher educational institution students on the problem of education digitization and distance learning



Source: the authors

What do the survey results show?

- Almost all the participants of the pedagogical process (over 90%) are for the use of digital technologies and they see an excellent means for successful learning in them. The like question was posed to the teachers of Saransk, and their answers were similar, too.
- The problem consists in the fact that the use of digital technologies in education does not solve the problems of saving time, effort, and obtaining a higher creative result.
- This allows concluding that educational technologies are used as a goal in itself and "fail" the very process of learning.

In this situation, close attention has to be paid to the options of influence of teachers, psychologists, students, and parents on the

work of software designers. The software and architectural solutions have to be variable, "soft", i.e. humane, and, therefore, allowing one to tune up solutions for various people, their abilities, levels of technological and information competency, and so on. Even though the technologies can yield a maximum (of programs, assignments, templates, assessment and check methods, etc.), it is not maximum but "optimum" that has to be required in relation to people, and a calm rhythm of work and studies has to be maintained.

This means that distance learning (which is in fact purely digital learning) has to be a supplement for the real learning at a class or group of students. The survey participants' are quite right in saying that real learning with the use of technologies is more efficient as it renders the process of education human, while mere technification can dehumanize this process curtailing the results.

#### 5 Conclusion

The community of teachers, programmers, psychologists, and scientists faces a serious task of leveling out the risks and humanizing digital education. It can be accomplished relying on the following provisions.

First, the system of education has to be built and managed at all levels as a Human and not technical system, and the relations of participants of the pedagogical process have to be cultivated in line with this approach. This means that the quality of education is first of all determined not by facilities, computers, interactive whiteboards, and even not by the Internet, but by students and teachers who can learn and teach well both having computers and not (the latter is certainly more difficult for a history teacher, but it is not quite challenging for a PT teacher).

Second, the technology, software solutions, and AI have to be adapted to Man, and not vice versa, which is frequently the case. For example, when deciding on the use of particular technologies, it is good enough to take into account the opinion of children and their parents. The opposite case results in the following situation: there is an official system for solving some problems and an unofficial chat in a messenger where they tackle many others, if not most of them.

Third, teachers must organize the pedagogical process relying on people's eternal, unchanging needs. Let the following needs be emphasized, alongside the needs of life preservation and procreation.

The need of creativity. If studies or work have no creative result in the broad sense of the word, they become pointless. This means, that students will be very hard to motivate even having high-tech "filling". As for the principal motive, this is interest flowing into the products of one's own activity.

The need of belonging to a group (social position and protection). Admittedly, everyone want to find their place in the society. Man is a super-social being. People desire to be accepted by the group, approved and protected by it, they await conditions and opportunities for fulfillment of their own potential from it. This is why children choose exactly such groups where they feel (mistakingly at times) their own importance. This means, that children will study better in a peer community in which learning and knowledge are a value rather than merely at the computer screen. The truth is also that it will be very hard for teachers to organize learning at a class where knowledge is no value.

The need of interaction and mutual learning. People want to not merely be a part of a group; they need interacting with each other, sharing the information, and teaching what they know to others. Digitization and distance learning must not reject this need. So, for example, in a traditional class, they use extensively the well-known technique of some students explaining ways of solving a problem to other students. Even if this process can be set up remotely (children teaching each other in the virtual

space), one has to agree it will be outplayed by real interaction anyway.

The need of soul searching. If the above needs of Man are met, he achieves the major objective of upbringing and education – finds himself. In this way to himself, his main guides are teachers and mentors not by occupation but in essence. They are parents, teachers, adults, and children. From the point of view of humanist pedagogy, it is "finding oneself", "fulfilling one's potential to the benefit of people" that is the most important objective and result of education.

Fourth, teachers must always bear in mind that digital technologies are not a goal in itself; they are only efficient if students want to learn and teachers want to teach.

Fifth, educational institutions have to introduce the "digital educational hygiene" rules: refusal from the use of gadgets during studies and work not requiring their use, reduction of the time of using them, etc.

It is only relying on Man's eternal needs and values that digital technologies can be framed to serve education. In the opposite case, we are in for the society of digital consumers and not for the society of creators of the human culture.

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# SCIENTIFIC AND PEDAGOGICAL SCHOOL OF PROFESSOR E.G. OSOVSKY: ESTABLISHMENT AND DEVELOPMENTAL PROSPECTS

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Abstract: This paper has endeavored to analyze the scientific and pedagogical school of Efim Grigorievich Osovsky (1930-2004), provide an overview of its main research directions, and reveal the multifacetedness and depth of academic interests of the scientist and his contribution to raising several generations of researchers, university teachers and educators. The authors show that E. G. Osovsky was a founder of the priority directions in pedagogical science – the split of the history of professional-technical education into an independent branch of the history of pedagogy; the study of the history of education in the region as an integral part of the Russian and global historical and cultural process; the study of regional historical and pedagogy of Russian emigration.

Keywords: scientific school, scientific and pedagogical school, E.G. Osovsky, research team, history of pedagogy, pedagogical regionology, professional-technical education, pedagogy of Russian emigration.

#### 1 Introduction

Scientific and pedagogical school is not only a unique phenomenon of consolidation and self-identification of the scientific community, but also a rather effective mechanism for preserving and passing on to future generation the best scientific traditions thus fueling the forward development of a scientific thought. As integration of education and science within the university is gaining pace, it is hard to overestimate the value of a scientific and pedagogical school for raising highly qualified scientists-educators. Therefore, appreciation of the splendid heritage of scientific and pedagogical schools of Soviet and Russian scientists becomes especially relevant, inter alia through the prism of challenges faced by pedagogical science and education today.

Universal recognition from the Russian and foreign historical and pedagogical community was received by the scientific and pedagogical school of Efim Grigorievich Osovsky (1930-2004), a corresponding member of the Russian Academy of Education, an active member of the International Pedagogical Academy, Doctor of Pedagogical Sciences, Professor, Honored Scientist of the Republic of Mordovia.

Being an outstanding scientist-educator, mentor and teacher, E. G. Osovsky built a team of like-minded people - scientists and educators, teachers, post-graduates and doctoral students from Russian universities, who were highly efficient at carrying out the scientific research. Under his leadership, about 40 PhD theses for Candidate of Science and Doctor of Science degrees were defended. During the lifetime of E. G. Osovsky, a bridge was built between the generations of researchers who grew up on his bold and original scientific ideas and amazing experience of creative professional communication, which has become a genuine school of scientific exploration and research culture. Led by E. G. Osovsky, the Department of Pedagogy has established close scientific ties with many Russian universities and research institutions: scientific institutes of the Russian Academy of Education and the Russian Academy of Sciences, the International Pedagogical Academy, the University of the Russian Academy of Education, the St. Petersburg University of Advanced Pedagogical Skills and the Academy of Culture, pedagogical universities of Moscow, Nizhny Novgorod, Chuvash, Kazan, Vladimir, Bashkir and other cities, many

classical universities (Kazan, Tyumen, Saratov, Saransk, Penza, Samara, Arzamas, etc.), and many others.

#### 2 Literature Review

The most effective force in training researchers and scientists and in propelling the science are scientific schools (schools in science).

As the analysis of literature shows, scientific schools emerged long ago in ancient Greece (schools of Pythagoras, Hippocrates, Plato, Aristotle, etc.). Philosophical schools were pedagogical, and addressed the tasks of teaching and education (Grezneva, 2004).

The first scientific schools as a form of organizing collective scientific activity were created on the model of art schools of the Renaissance, because up to the second half of the 18th century scientific activity had an individual character. Such schools emerged on the basis of universities around scientists as "schools of experimental skill" (for example, the chemical school of J. Liebig).

At the outset of the 20th century, due to the opening of scientific laboratories at the developing industrial enterprises and research institutes, scientific schools began to appear in research institutions.

The term "scientific school" is used "in relation to a relatively small research team, united not so much by organizational frames and a specific topic, but rather by a system of shared views, ideas, interests, traditions that are preserved, transmitted and developed in the course of generational change" (Leading scientific schools in Russia. Guide, 1998). With the main features of the scientific school being as follows: the commonality of scientific interests of the school representatives and the scientific relevance of the problems under research; the level of scientific results of the school and its recognition in the country and abroad; role of the scientific leader; stability and prospects of the school (succession of scientific generations, work with scientific youth, permanently run academic seminar) (Grezneva, 2004).

A traditional approach to examining scientific school is to view it as a historically conditioned organizational form of activity of a group of researchers. Since this activity is aimed not only to "produce" scientific ideas, but also to "produce" scientists.

The problems of scientific schools' establishment and development, identification of their distinctive features and characteristics, criteria and indicators receive considerable attention from the Russian and foreign researchers in the field of science studies, history of science and social disciplines (Vladimirov, 2013; Grezneva, 2004; Ustyuzhanina et al., 2011; Kuzoro, 2019; Loginova, 2000; Mirskaya, 2002; Yaroshevsky, 1977)

Social and psychological phenomenon of scientific schools and the history of development of scientific schools in psychology are explored within social psychology (M. G. Yaroshevsky (1977) and his scientific school). M. G. Yaroshevsky (1977) believes that "schools in science... have a dual function educational (developing creativity) and research...". His suggestion is to classify scientific schools into three groups: 1) Scientific and educational school (scientific-pedagogical); 2) School as a research team; 3) School as a direction. Difficulties associated with differentiation, according to M. G. Yaroshevsky (1977), are caused, firstly, by the fact that one and the same scientist may be the leader in the schools of all three types, and secondly, by the fact that, as in any other typology, "pure" forms are the rarest occasion; and the mixed types are most common....

According to N. A. Loginova (2000), the attributes of a scientific school include the presence of a program developed by its

leader, direct communication between members of the school, availability of methodological tools, and the established internal standards for performance evaluation.

Professor E. Z. Mirskaya (2002) believes that "the term 'school' is used to designate a research team or community of informally interacting scientists united around an academic leader and sharing his scientific ideas and implementing a single, usually innovative, research program. The cornerstone of the scientific school is self-organization.

In pedagogical science, schools of science are usually differentiated only for appreciating the ideas developed by this or that pedagogical scientific school. Thus, Grezneva (2004) has offered the following classification of scientific schools: by the type of links between members of a scientific school - a scientific movement, "an invisible college", or a research team; by the status of a scientific idea - experimental or theoretical; by the breadth of the subject area under study - narrow-focused or broad-focused; by the functional purpose of the knowledge produced - fundamental or applied; by the organizational form of students' activities - individual R&D or group R&D; by the nature of intergenerational links - one-level or multilevel; by the degree of institutionalization - informal, clubs, or institutional; by the level of operation - national, local, personal.

Many studies (Bokareva & Bokarev, 2014; Laptun & Tikhanov, 2018; Ronzhina & Efano, 2018) are devoted to the analysis of the history of establishment and development prospects of certain scientific schools. For example, A.I. Vladimirov (2013) and other researchers reveal the problems of development and preservation of scientific and scientific and pedagogical schools at Gubkin University.

Speaking about scientific schools that are created and developed under the auspices of universities, it should be noted that the most important task of the scientific school at the university is to train scientists-educators, and that is the case when we should speak about the scientific and pedagogical school.

Studying the establishment and development of the scientific and pedagogical school of E. G. Osovsky, several works should be highlighted that cast light on various aspects and directions of its multifaceted activities. Thus, in the works of T. I. Shukshina (2005), I. L. Naumchenko (1990) the versatile scientific and pedagogical creativity of E. G. Osovsky is explored.

The publications of P. N. Osipov (2016) and other researchers show the enormous influence wielded by E. G. Osovsky over establishment and development of professional pedagogy.

The works of M. V. Boguslavsky (2005a, 2005b) reveal the role of Professor E. G. Osovsky in the study of establishment and development of pedagogy in Russian emigration.

Publications of T. I. Shukshina and I. A. Zetkina (2006) provide the analysis of the research laboratory "Education in the Mordovian Region" as a line of research on regional history of education

Publications by V. P. Kirzhaeva and O. E. Osovsky (Kirzhaeva et al., 2019) pursue further research to trace the development of the direction related to the history of education in Russian emigration.

# ${\bf 3} \ Research \ Methodological \ Framework$

The purpose of this paper is to study the establishment and evolution and to predict the development prospects of the main directions of scientific and pedagogical school of Professor E.G. Osovsky.

The study is based on historical-pedagogical, anthropological and hermeneutic approaches. Taking into account the specifics of pedagogical research, the following methods were employed: theoretical (analysis and synthesis, systematization, classification, concretization, conceptual-terminological, biographical); empirical (observation, study and synthesis of

scientific heritage and teaching experience, etc.). The main research objectives were as follows: 1) Identify specific features incidental to E. G. Osovsky's scientific and pedagogical school; 2) Analyze the priority lines of research pursued by E. G. Osovsky's scientific and pedagogical school establishment and development of professional-technical education, specifics of education and pedagogical thought in the Mordovian region, history of pedagogy and education in the Russian emigration (1920-1950ss); 3) Evaluate the scientific contribution of E. G. Osovsky to the pedagogical science.

#### 4 Findings and Discussion

A scientific and pedagogical school is a cohesive team of scientists and educators working together for several years and conducting research and training of highly qualified personnel. With regard to the university, it is a team of scientists and educators united by a common scientific direction, working under the guidance of a leader, who is well-known in the scientific and pedagogical community, and comprised of doctors and candidates of science, young scientists, teachers, associates and postgraduates. The main characteristics of a school are productive scientific and pedagogical activities, succession of generations, recognition of the scientific direction and the high level of research by the international and domestic scientific and pedagogical community.

Drawing from the research of B. Ostwald, who identified four main groups of the inherent qualities of a scientific school founder, essential for its establishment, we should point out that Professor E. G. Osovsky possessed all the necessary qualities, namely: the qualities that characterize school founder as a researcher - personal interest in the development of certain scientific problems, high motivation, ability to focus on relevant problems of practice and theory, sensitivity and susceptibility to novelties, ability to generate ideas, critical talent, clear intellectual position, etc.; qualities that characterize the scientist as an organizer; pedagogical capabilities of the school leader consist in the ability to express his thoughts and beliefs in a vivid and clear way and to convince others, the ability to inspire and spark enthusiasm, etc., as well as other personal qualities - spiritual and moral-ethical qualities (Grezneva, 2004).

E. G. Osovsky was the founder of a number of priority directions in pedagogical science: establishment and development of history and theory of professional education; education and pedagogical thought of the Mordovian region; pedagogy of Russian emigration (1920-1950ss). The fundamental nature of his research became a solid foundation for the activities of the scientific and pedagogical school established by him (Shukshina, 2005)

One of the main directions of his scientific pursuit was exploration of the problems of pedagogy and psychology of professional-technical education. In his monographs and doctoral thesis, the theory of professional-technical education was first considered as a subject of historical and pedagogical research. The result of these scientific pursuit was the split of the history of professional-technical education into an independent branch of history of pedagogy. In addition, the methodology and methods of research were developed, a holistic historical picture of the development of professional-technical education in Russia was restored, the theoretical foundation for the development of professional-technical education in the historical context were laid (Osipov, 2016; Shukshina, 2019).

Today the problem of professional-technical education modernization has become of particular relevance. In order to render this process more effective, we need to draw on and benefit from the knowledge on the history of professional-technical education. The theoretical core formed in his heritage on the professional-technical education is of great interest for researchers. Candidate's theses were written and defended in this research field (by N. I. Enaleeva, O. B. Kiryakova, N. A. Savinova, E. G. Sergushin and other teachers from different Russian universities).

The next research direction pursued by the scientific and pedagogical school of E. G. Osovsky is examination of the problems of development of education and pedagogical thought in the Mordovian region.

Targeted research on the history of education and teaching in the Mordovian region began long before institutionalization of this direction. Back in the 1970s, E. G. Osovsky showed research interest to the historical and pedagogical aspect of the region study, which was triggered by the need to develop local history sections of a university course on the history of education.

The ideas of the research direction "Education and Pedagogical Thought in the Mordovian Region" are reflected in the works of E. G. Osovsky, as well as in the works of his numerous pupils and followers. He managed, within the framework of a dominant ideological paradigm, to overcome the one-sidedness of scientific judgments on the essence of pedagogical phenomena. The scientist was committed to view the history of education in the region as an integral part of the Russian and global historical and cultural process, characterized by the uniqueness of national authenticity. His lecture course became a stepping stone for the development of principles of historicism, cultural expediency, socio-cultural and axiological approaches to the study of problems of pedagogical regionology. Exploration of regional historical and pedagogical problems from the angle of interdisciplinary geopolitical approach to the study of the history of education in the Russian regions, proposed by E. G. Osovsky, has a fundamental importance for the research team that continues to pave the way forward for this scientific direction (Shukshina & Zetkina, 2006).

It should be noted that within this research direction, both single-author and collective monographs were prepared, candidate's theses (I. A. Klimashin, L. V. Kudaeva, V. I. Laptun, I. G. Zubareva, S. A. Ivliev, etc.) and doctoral dissertations (S. V. Grachev, I. A. Zetkina, T. I. Shukshina, etc.) were defended. As concerns the research potential of this direction, the major goal is not to lose momentum in the achievements of the research on education and pedagogical thought in the Mordovian region and the development of pedagogical regionology and constantly monitor the present-day historical and pedagogical process within the regional educational space.

The quintessence of E. G. Osovsky's scientific creativity is the study of problems related to the history of pedagogy and education of Russian emigration. In 1993, upon his initiative, an inter-university laboratory was created, which set the stage for the study of problems of the Russian school and pedagogy in the "first wave" of Russian emigration. It included researchers not only from the Mordovian Pedagogical Institute, but also from the Mordovian State University, universities of Moscow, Nizhny Novgorod, Tomsk, St. Petersburg, Kazan and other cities. In 1996, his anthology "Pedagogy of the Russian Emigration" was published, which first made the philosophical and pedagogical heritage of emigration known to public. In the following years, under his guidance another monograph "Essay on the History of Education and Pedagogical Thought of the Russian Emigration (1920 - 1950ss)", collections of selected works by S. I. Hessen (2001), V. V. Zenkovsky (2003), and several academic papers were published. Russian nationwide conferences on this topic were held in Saransk (1994, 1997, 2000). The grants received by the scientific school from the Russian Foundation for Humanities (1966-1999; 1997) should be considered as evidence of its recognition.

This topic has been successfully explored and continues to be elaborated by the students of E. G. Osovsky. Candidate's works (V. E. Deryuga, E. V. Kirdyashova, S. K. Kudryashova, V. A. Sukhacheva, etc.) were defended in this field of research. The layer of historical and pedagogical material discovered by E. G. Osovsky today finds reflection in the works of many Russian and foreign researchers (Boguslavsky, 2005a, 2005b).

The above research directions do not represent the full spectrum of E. G. Osovsky's scientific interests; his scientific pursuits were multifaceted and fruitful. Scientific interests of the scientist

also included the problems of methodology, theory and practice of general education, innovative processes in pedagogical education, issues of practice-oriented training. Back in 1971, he was the first to raise the problem of pedagogical profession and standards of teacher training. He was the author of the complex of original programs for normative and special courses: on educational methodology, social pedagogy, history of education and pedagogy, etc.

Work of the scientist in the post-Soviet period was directed at conceptualizing new approaches to the problems of the history of education and reinvigoration of its aspects, which had not received objective examination in the past (alternative pedagogy in 1920s, M.M. Bakhtin and pedagogy, problems of social pedagogy, etc.). E. G. Osovsky is the author of over 400 scientific works of various genres. The scientist's works have a high citation index in various literature: encyclopedic, scientific, educational, dissertation works (Shukshina, 2005).

Efim Grigorievich possessed a great combination of the traits of scientist and of organizer of pedagogical science and innovative educational practice. He developed, published and implemented an original concept for preparing and holding pedagogical olympiads based on the technology of sharing of responsibilities (Savinova et al., 2018).

Along with that, the scientist had done a remarkable job concerned with organization of science. Only in recent years, he was a member of three dissertation councils: on defense of doctoral dissertations for pedagogical specialties at Mordovian State Pedagogical Institute and Nizhny Novgorod State Pedagogical University, as well as on philosophy at N. P. Ogarev's Mordovia State University.

#### 5 Conclusion

Research team of the scientific and pedagogical school of E. G. Osovsky, the scientist's followers carry forward and develop the cause started by their teacher. The dissertation studies are undertaken. International Research and Practice Conference Osovsky's Pedagogical Readings "Education in the Modern World: New time - New Solutions" is held annually. Thus, in 2019/2020 academic year the 13th Osovsky's pedagogical readings took place and attracted a wide range of participants not only from different Russian regions, but also from abroad. MSPI pursues exploration and experimental activities as a federal innovation forum of the Ministry of Education and Science of the Russian Federation and as a scientific innovation platform of the Russian Academy of Education for the development of a model of a higher education institution to act as a center of pedagogical education and for the scientific and methodological support of general, secondary vocational and additional education in the region. With the support of the Russian Foundation for Basic Research, the research is carried out on methodology, theory and technologies of practice-oriented training in the innovative educational environment of the university. Vigorous research and publishing activities unfold. The traditional interuniversity theoretical "Modern Problems of Pedagogical Science and Practice", where the results of research are discussed and consolidated, continues its work.

Still, the stature of Efim Grigorievich Osovsky as a scientist, an educator and an innovator has yet to be thoroughly and comprehensively examined. We believe that this is a promising direction for the research by not only young scientists from MSPI, where Efim Grigorievich spent most of his working life, but also from other universities across Russia, with which the scientist has a close contact.

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#### Primary Paper Section: A

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# SCIENTIFIC APPROACHES AND DEVELOPMENT OF MODELS FOR ORGANIZING EDUCATION FOR CHILDREN LEADING NOMADIC LIFE WITH THEIR PARENTS

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Abstract: The paper is aimed at detailing scientific approaches and developing models of organizing the education for children in the areas of nomad settlements. The leading approach to studying this problem is the social and cultural one which allows considering scientific approaches in an integrated way and developing models of organizing the education for children leading nomadic life with their parents. In the paper, scientific approaches to organization of the educational process are described and substantiated: the civilizational one, the social and cultural one, the activity-based and synergetic approaches. New models of organizing education for children leading nomadic life with their parents have been developed for improving previously designed concepts, teaching and learning support.

Keywords: education, nomadic life, indigenous small-numbered peoples of the North, areas of nomad camps.

#### 1 Introduction

The relevance of the research. In the civilization conditions of the contemporary society, nomad forms of organizing preschool and general education are vital and sought after for supporting nomad families busy in traditional sectors of economy. Given the modern social and cultural situation in the areas of traditional settlement of indigenous small-numbered peoples, there is the long-standing need of searching for new approaches to organizing the education of children leading nomadic and (or) semi-nomadic life with their parents.

According to the data of education authorities in 8 regions of Russia, submitted to the Ministry of Education of the Russian Federation at the beginning of the academic year 2019-2020, 4676 nomad families lead the traditional life in the areas of traditional economic activity of the indigenous small-numbered peoples of the North, Siberia, and the Far East (they move about following the reindeer, and lead nomadic and (or) semi-nomadic life)

The educational process in the areas of nomad settlements is organized in the Republic of Sakha (Yakutia), Yamal-Nenets and Chukotka autonomous districts, Amur region, and Taimyr Dolgano-Nenets municipal area of the Krasnoyarsk territory.

According to the results of the research conducted (2019), it has been found that the wish of nomad families to educate children without separation from their parents is catered for only partially. This is associated with the fact that children mainly live at boarding schools, except in the Republic of Sakha (Yakutia), where a network of nomad schools has been kept for ensuring primary general and basic general education according to individual curricula. Practically, a small number of children of the younger school age nomadize with their parents.

Practice shows that in individual subjects of Russia families need education of children in conditions of nomad territories. Currently, a new vision of education of children in the areas of nomad settlements is necessary which is in line with the recent realia of the society and the state.

In the conditions formed, the way the educational process can be organized in nomad conditions has to be studied for ensuring the accessibility of preschool and primary general education in the subjects of the Russian Federation.

In the domain of organizing the education for children leading nomadic life with their parents within the Russian Federation, there are problems demanding both basic and applied research. First of all, scientific approaches to organization of the educational process for children leading nomadic life with their

parents are not studied, with the contemporary realia, new social and cultural situation borne in mind. For education of smallnumbered peoples, scientific grounds have not been provided, and the conceptual framework and definitions used in it have not been sorted out. They have not yet developed models of organizing the educational process in conditions of nomad territories, with the requirements of education of the future, socialization of children and the young people in the era of digital transformation of social and economic life in Russia, as well as both Russian and international best practices taken into account. Secondly, changes in the "social and cultural portrait" of the participants of educational relations (children, parents, teachers) leading nomadic life have not been studied, their life strategies and social and cultural competencies have not been identified. Thirdly, basic resource support models for nomad kindergartens and nomad schools have not been created yet. Fourthly, teaching and learning aids have to be developed for the use in the variable part of education.

For solving the found main problems of education of children leading nomadic life with their parents, it makes sense to analyze scientific approaches and education organization models.

#### 2 Literature Review

Pedagogical science and practice has viewed the questions of education of children leading nomadic life with their parents from various standpoints: as organization of the processes of upbringing and training with the specific circumstances of nomad schools taken into account (Egorov & Neustroev, 2003), as community-based education as the principle of actively involving all participants of the educational process into the activity (Robbek, 2007). In conditions of the upgrade of general education system in the 2000s (2004), consideration of agerelated and individual particularities of training and upbringing of the children based on the folk pedagogy is of great importance (Nikitina, 2000). The content and technology of education are studied from the point of view of teaching and learning support at nomad primary schools (Fedorov, 2006, p. 94), applying new work forms in the educational process (Nikitina, 2019, p. 831-837). Within the topic of the research, urgent questions of children's self-organization and self-fulfillment during further education in reindeer herding (Fedorov, 2018, p. 403-410), children's joint activity with their peers and adults (Lebedeva, 2011, p. 170-173; Fedorov, 2013, p. 120-125) are also discussed.

The problems of professional training of teachers for small-numbered and nomad primary schools of the North and East of Russia (Neustroev & Neustroeva, 2012, p. 73-78), developing the educational program for them (Zhirkova & Yakushkina, 2018), studying the pedagogical potential of ethnocultural traditions of the nomad peoples of the North (Neustroeva & Shergina, 2018, p. 92-115) are highlighted in the works of Z. S. Zhirkova (Zhirkova & Yakushkina, 2018), N. D. Neustroev (Neustroev & Neustroeva, 2012, p. 73-78), V. P. Marfucalova, T. A. Shergina, N. V. Okoneshnikova, T. M. Borisova, E. E. Sidorova (Neustroeva et al., 2012, p. 1-8; Neustroeva & Shergina, 2018, p. 92-115). These studies are the theoretical basis for organizing education in conditions of nomad territories; they reinforce the scientific basis for creation of new models and teaching and learning support up to the modern realia.

Studying the concepts of education of children in indigenous small-numbered peoples developed in various years is of no small importance. These are the concepts of reforming the system of preschool and general education and training the personnel from the number of the very indigenous small-numbered peoples of the North (Artemenko et al., 2001), models of ethnic (national) schools for the indigenous small-numbered peoples of the North of the Russian Federation (Nasilov, 2001), and the concept of a system of nomad educational institutions of the Republic of Sakha (Yakutia) (Robbek, 2007). The concepts

are implemented by the municipal structure authorities, including the tribal nomad communities.

The concept of reforming the system of preschool and general education and training the personnel from the number of the very indigenous small-numbered peoples of the North identifies the specific conditions of functioning of the schools, provides for various types of schools (nomad ones, boarding schools, stationary ones) and models of organizing the teaching and upbringing process depending on the economic calendar and modifying the content of education up to the national and regional particularities and traditions. In this concept, the requirements for developing the content of education are formed with the focus on aligning the program of nationally-oriented study courses. Special attention is paid to the responsibility of the state for the Northern children's getting a full-fledged education consistent with their life plans (Artemenko et al., 2001).

In the concept of the model of ethnic (national) schools for the indigenous small-numbered peoples of the North of the Russian Federation, the main emphasis is on analyzing the linguistic situation and particularities of forming the content of education, teaching and learning support: the models of ethnic experimental (the nomad one, the taiga one) schools for various regions are described; variants of models of curricula for various types and kinds of national educational institutions are suggested (Nasilov, 2001).

The concept of a system of nomad educational institutions of the Republic of Sakha (Yakutia) describes the general bases for creating nomad schools, details the main lines of work with the material and spiritual culture of the indigenous small-numbered peoples of the North borne in mind, relying on the culturological approach.

The analysis of the above concepts allows finding that the Republic of Sakha (Yakutia) disposes of the sufficient social, material and technical, scientific, personnel resources, regulatory and legal framework for its nomad general educational organizations to function successfully. The creation of nomad school is first and foremost associated with the social request of the public, with development trends of the ethnoses, the parents' request and the children's interest considered. The material and technical outfit of objects, the scientific basis rely on the cluster approach, interaction with scientific institutions, higher educational institutions doing research in sociolinguistics, ethnography, sociology, linguistics, and philology. The personnel basis is created with the best traditions of pedagogy of the North. The teachers have to know the culture and language of the people. One of the key conditions of activity of the schools is the regulatory and legal framework.

# ${\bf 3} \ Research \ Methodological \ Framework$

The objective of the research is: to give theoretical substantiation for scientific approaches to education of children of the indigenous small-numbered peoples of the North, Siberia, and the Far East of the Russian Federation leading nomadic life with their parents; to develop and test out education organization models in the nomad conditions.

The task of the research is: to analyze scientific approaches and models of organizing education for children of indigenous small-numbered peoples in conditions of nomad territories.

The research methods are: theoretical (the analysis of scientific literature within the aspect under study), the theoretical and empirical ones (modeling).

# 4 Results and Discussion

For developing the education of children leading nomadic life with their parents further on, the contemporary realia have to be taken into account. With regard to this, the authors suggest taking the following scientific approaches to organizing the educational process as the scientific basis: the civilizational one, the social and cultural one, the activity-based and synergetic ones. What is the prerequisite behind such a conclusion? First of all, this is assurance of accessible education in the areas of nomad settlements. Second, these are the establishment of children's personalities (learning the worldview and values of the nomad lifestyle), individualization (learning oneself, one's view of the world, one's values) and integration of the children (entering the social and cultural environment) determining their activity and behavior. Third, the experience of the centuries, material, cultural, and spiritual traditions of the people must be transmitted. Fourth, the quality of social life of the communities has to be improved, and so does the productivity of their labor. Fifth, children have to be given professional guidance in various spheres of life activity, including the agricultural sector.

The civilizational approach allows detailing particularities of the education of children in the areas of nomad settlements. It creates the social and personnel basis and provides an opportunity for studying the uniqueness, originality, and identity of the culture of nomadic life of indigenous small-numbered peoples. It is in this line that A. J. Toynbee (1966), N. Ya. Danilevskiy (1991), and N. L. Gumilev (1993) laid down the main provisions of the civilizational approach. The originality of nomad educational institutions within this approach ensures organizing the children's educational activity aimed at improving their self-organization in the class-based, extracurricular activity, and in further education. In their turn, teachers as coordinators of the educational process create favorable conditions for the children's achieving qualitative changes, "encourages the children to coordinate their own knowledge, attitudes, and actions with the knowledge, attitudes, and actions of teachers" (Stepanov, 2019, p. 8), peers, parents, and other adults. The teachers compile individual curricula, manage study projects using computer and network means, multimedia technologies, specialized software for individual study courses. They organize children's movement in the traditional kinds of economic activity and folk crafts: conduct testing and self-control of research, project, and practical abilities, etc.

The necessary conditions for prompt licensing and implementation of educational programs in full according to the federal state educational standard, with age-related, mental and physiological particularities, dispositions, abilities, interests, and needs of the students taken into account, have to be created in the areas of nomad settlements from the very beginning of educational activity.

The social and cultural approach, "as a scientific and pedagogical trend, is a paramount resource for analyzing situations, spotting educational problems, and solving them, while also the foundation for development of educational practice" (Tsirulnikov, 2007, p. 91). This approach determines specific features of the nomadic lifestyle, the nomad family, the traditional economic activity, communal settlement for transforming the social and cultural environment. It is the activity of non-commercial organizations (NCO) in the tribal communities that becomes one of the essential mechanisms in terms of the former. Participation in regional and federal grants and contests can help attract investments from various sources.

The activity-based approach is the methodological basis in the part of the content of education. New knowledge cannot be mastered without practical and research activity. Searching for problem solutions independently leads to finding a way out of a situation having emerged, gaining basic skills in reindeer herding, fishing, ecology of the environment, fundamentals of security and life activity. In terms of the process of joint activity of children and adults, this approach is aimed at forming and developing their creative capacities, satisfying their individual needs of intellectual, moral, and physical improvement, forming the culture of a healthy and safe lifestyle, organizing one's free time. Thus, further education of children ensures career guidance for them, their adaptation to living in the society, identification and support of the children who manifest outstanding abilities. Meanwhile, the role of informal education is important "as a broad range of educational programs beyond participation of the

state but within the current legal framework" (Tsirulnikov, 2007, p. 118-121). Informal education "is the education helping one catch up on the material which was missed for any reasons, regardless of the level of education, gender, age, etc., it promotes continuous enrichment of an individual's creative capacity" (Tsirulnikov, 2007, p. 12-16).

In conditions of the ongoing upgrade of the system of education, it is the synergetic approach as the modern methodological focus on children's self-organization and self-fulfillment that is the foundation for changes. Here, the foreground is taken up by productive activity (the practical, project, creative, research one) the result of which is a particular product (for example, manufacturing parts of the dwelling, transport equipment, fishing gear that could be categorized as "exciting or not exciting", "original or not original", etc. During the activity, individual educational paths are elaborated, which is important in nomad conditions when compiling the daily routine and adopting new habits. With regard to this, prospects and opportunities for the children's personal growth open up (motivation, mobilization, performing activities without aid, self-improvement, self-actualization).

Proceeding from the analysis and definitions of the scientific approaches, the scientific and methodological base on the said topics range, and studying the regional practices of organizing the educational process in conditions of nomad territories, the authors have developed 6 models of education for children leading nomadic or semi-nomadic life with their parents.

According to model 1 "Structural units carrying out educational programs for children leading nomadic and (or) semi-nomadic life with their parents", the children of preschool and primary school age can be educated. The second model is a comprehensive educational organization having a structural unit "Nomad school"

Model 2 "Nomad comprehensive educational organization (an entity)" can be created if the school is licensed for educational activity. Such a school has to function all year round.

Model 3 is a nomad comprehensive educational organization (an entity). Model 4 represents the family form of getting education. In model 5, "Public and private partnership", communities of the small-numbered peoples participate in educational programs for children as the interested members of educational relationships. They can also create autonomous non-profit organizations according to the Federal Law "On non-commercial organizations" and obtain educational licenses for individual educational activities. The last one, model 6, is a nomad camp.

Summing up the results of studying the scientific approaches to education of children of indigenous small-numbered peoples who are busy in the traditional sectors of economy in conditions of nomad territories, the authors see the prospects for qualitative improvement of the way the educational process is organized in the areas of nomad settlements. The prospects are as follows:

- the legal basis has to be further developed, with particularities of organizing the education for children leading nomadic life with their parents to be captured in the federal legislation and taken into account in licensing of the educational activity; special conditions for working in the nomad context have to be created;
- the number of children covered by services of preschool education without separation from their parents in the traditional settlement areas has to be increased;
- nomad comprehensive organizations (entities) have to be developed which implement preschool, primary general, and basic general education programs up to the federal state educational standards of preschool, primary, and basic general education, as well as the further education program (general development pre-professional program) based on individual curricula;
- conditions have to be created for the communities of smallnumbered peoples to keep up the state and private partnership relations with the state authorities or local self-

- government authorities in implementing further education programs and nomad camps;
- curriculum guidelines, teaching and learning support have to be developed for carrying out models of education for children leading nomadic life with their parents.

In terms of content, the developed models have been included into the Recommendations on methods and Analytical materials on organizing the education of children of the indigenous small-numbered peoples of the North of the Russian Federation leading nomadic life with their parents.

#### **5 Conclusion**

Based on studying the scientific approaches to education of children leading nomadic life with their parents, the authors have developed models, recommendations on methods and analytical materials.

In this research, scientific approaches (the civilizational one, the social and cultural one, the activity-based and the synergetic ones) have been defined for improving the concepts, teaching and learning support available previously and for developing new models of organizing the education for children leading nomadic life with their parents.

Six models have been developed:

- structural units implementing educational programs for children leading nomadic and (or) semi-nomadic life with their parents;
- nomad comprehensive educational organizations (entities);
- family education form;
- state and private partnerships;
- public and private partnerships;
- nomad camps.

In terms of content, the developed models have been included into the Recommendations on methods and Analytical materials on organizing the education of children of the indigenous small-numbered peoples of the North of the Russian Federation leading nomadic life with their parents.

In the Analytical materials, the results of monitoring the contemporary condition of education of children of indigenous small-numbered peoples leading nomadic life with their parents are presented, education models are identified, and forecast solutions for problems and particularities of the resource support of the educational process are outlined.

Recommendations on methods describe organizational and legal forms of education and organizing the educational activity of children leading nomadic and (or) semi-nomadic life with their parents.

Summing up the results of the research, the authors outline the following prospects of qualitative improvement of the way the educational process in the areas of nomad settlements is organized:

- the accessibility of preschool education services has to be widened, and so does functioning of comprehensive organizations having the "Nomad school" and "Nomad kindergarten" structural units, as well as of independent institutions registered as entities;
- preschool, primary general, and basic general education programs have to be carried out according to individual educational paths and relying on the civilizational, social and cultural, activity-based, and synergetic approaches with the use of modern educational activity organization forms;
- conditions have to be created for the state and private partnership relations in carrying out further education programs and organizing nomad camps in settlements;
- further educational programs and projects of teaching and learning support have to be developed.

In 2020-2021, within fulfillment of the SRW schedule, the collective "social and cultural portrait" of the children, parents and teachers will have to be studied, and teaching and learning aids will have to be elaborated keeping in mind the best practices of education in nomad conditions and the achievements of the contemporary science, technology, and foreign experience.

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# MONITORING THE CARDIORESPIRATORY SYSTEM INDICES IN STUDENTS UNDER ADAPTATION TO VARIOUS PHYSICAL ACTIVITIES

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Abstract: One of the major issues of adolescent sports physiology and medicine is prevention of maladaptation states that may be premonitory signs of many prepathological and pathological conditions. The objective of the research was the study of monitoring indices of the cardiorespiratory system in students during their adaptation to various physical activities when studying at the faculty of physical education. The research consisted in studying physical development, physical fitness, heart rate and functional characteristics of the circulatory system using the healthExpress computer software and hardware complex. As a result of the research, the valid trend to lower heart rate and arterial blood pressure in students has been found in follow-up examination, which gives evidence about the development of the cardiovascular system mechanisms of adaptation to various physical activities.

 $Keywords: \ monitoring, \ adaptation, \ cardiorespiratory \ system, \ students, \ sport specialization, physical activity.$ 

## 1 Introduction

The current conditions of life place high demands on the level of physical development, working capacity and defenses of the human body. The analysis of functional status of the body and physical fitness of children and young students shows that over the recent decade, the number of students scoring low on physical fitness has tripled reaching 50,8% in young men, and 58,8% in young women (Pozharova & Elaeva, 2016).

In schoolchildren, physical state and working capacity change under the impacts of the environment and learning events. Meanwhile, timely checking and assessing the schoolchildren's fitness allow building the educational process sensibly and identifying its efficiency. It takes schoolchildren immense expenditure of the internal energy, physical effort, and emotional tension to pass from general education to higher school.

In young students, adaptation to new social conditions, particularly in their first years of study, triggers active mobilization of the body. With regard to this, the system of measures for protecting students' health and rehabilitation during their learning at higher educational institutions has to be improved (Yakimova et al., 2014).

In the recent decade, a negative trend has been noted in students' medical status, which is due to the social and economic situation, natural environment worsening, and, as a consequence, material welfare and people's level of life decreasing.

At the same time, the country has seen reforms of the higher school system, which was accompanied by students' having to absorb a larger volume of the learning material against the background of insufficient knowledge and skills of the healthy way of life, emotional stress, hypodynamia, and the relatively weak physical development. This hindered adaptation of young students, especially of the first-year ones, to the educational process, with adverse deviations in the body ensuing. In its turn, this led to worse health, reduced mental and physical working capacity of the young students (Baevskiy & Berseneva, 1997).

According to Order of the President of the Russian Federation dated May 7, 2018 No. 204 "On the national objectives and strategic tasks of development of the Russian Federation for the period of up to 2024", one of the priority focus areas of scientific

and technological, social and economic development of the Russian Federation is promotion and protection of health, as well as increase of the percentage of citizens leading a healthy way of life. Special attention should be paid to health of the rising generation. As of today, the situation associated with students' health needs more careful control, which is confirmed by Resolution of the Government of the Russian Federation No. 916 dated 29/12/2001 "On all-Russian system for monitoring physical health of the population, physical development of children, adolescents, and young people".

Creation and implementation of all-Russian physical health condition monitoring is the state task in social policy; this monitoring ensures finding the cause-and-effect links between people's physical status and life environment factors, identifies the influence of social and psychological, sport and pedagogical, natural environmental factors on the quality of life, and contributes to making substantiated managerial decisions in health promotion (Pozharova & Elaeva, 2016).

#### 2 Literature Review

At the adolescent age, adaptation processes are formed under the effects of age-related particularities of the body, puberty processes, and environmental conditions (Pozharova et al., 2016; Yakimova et al., 2014). Long-term adaptation develops under multiple repetitions and summing up of physical actions. This stage is associated with numerous morphofunctional changes occurring in the body. First of all, the transformations pertain to the cardiorespiratory system which is the indicator of development of adaptation mechanisms (Ignatyeva et al., 2016; Kawabata et al., 2008). Studies of many authors have shown that the circulatory apparatus (and heart in particular) is one of the most important limiting elements in adaptation to exercise of various types (Golyshenkov et al., 2004; Matalyghina, 2009; Petrukhin et al., 2013; Koreneva, 2016).

Certainly, it is on the level of tension of regulatory mechanisms as well as on the stability margin that the cardiovascular system functioning economization and efficiency, the vegetative and energy supply of muscular activity depend (Sauer et al., 2007).

Assessment of functional status of the body is of immense importance in pre-nosological diagnosing (Baevskiy & Berseneva, 1997). Alongside studying the pattern of physiological parameters over time characterizing adaptation processes, one of the important methods is that of mathematical analysis of cardiac rhythm (Sazontova, 1997). This allows judging about the capacities of vegetative influence on the cardiorespiratory system and obtaining further information about functional status of the body even if there is no trend data on the main physiological indices (Pozharova & Elaeva, 2016; Neustadt et al., 1994).

# 3 Research Methodological Framework

The objective of this research consisted in monitoring several indices of the somatic health of students and their functional capacities of the circulatory system representing the development of adaptation of the body in response to various physical activities. The research tasks included studying the trend of indices of students' physical development and physical fitness in the course of study at the PE faculty, as well as finding out the effects of exercise of various types on the cardiorespiratory system.

The studies were conducted in the academic year of 2018-2019 on the base of the Regional scientific and practical center for physical education and healthy way of life of M. E. Evsevyev Mordovia State Pedagogical Institute (Saransk). All indices were taken twice during the day (before the start of classes and after their completion), twice a week (on Mondays and Fridays), and twice during the academic year (in October – term I; in March –

term II). The authors examined 25 students of the first year and 26 students of the third year of the faculty of physical education of M. E. Evsevyev Mordovia State Pedagogical Institute. The following parameters were studied: physical development; functional characteristics of the cardiovascular system; physical fitness of the students. Using the software of the healthExpress integrated computer diagnostic machine, the following anthropometric and physiometric measures of all the students were taken (in the relative physiological rest condition): height (cm), body weight (kg), chest circumference (CC), heart rate (HR), and the arterial blood pressure (ABP) (Ryabova, 2012; Pozharova et al., 2016). The statistical parameters of cardiac rhythm were studied by the variation histography technique on 100 cardiac cycles. Histographic analysis of 100 cardiac cycles in R-R-intervals according to R. M. Baevskiy (Antonov & Burov, 2010; Baevskiy & Berseneva, 1997) with the calculation of mode (Mo), mode amplitude (AMo), variation range (MxDMn), and tension index (TI) was performed using the Varicard-Express hardware and software complex designed for assessing the index of activity of regulatory systems of the body based on the HRV analysis.

The mathematical analysis was performed using the EScreen computer software for ECG recording and analysis. This software automatically recorded ECG with further analysis of the intervals between complexes and plotted cardiointervalograms. These were processed in the mathematical unit of the software, and a number of figures characterizing the trend parameters of cardiac rhythm were output. Based on the histographic analysis, the statistical indices of cardiac rhythm were evaluated. For comparing the response types with the initial TI values, Pearson criterion was calculated ( $\chi^2$ ).

Physical fitness of the students was assessed by finding out the pattern of development of some physical qualities - speed and endurance - over time. Motor tests of 100-meters and 1000meters races were conducted. The 100-meters race to test the level of development of speed was conducted on the stadium track. At the "Ready!" command, the tested ones stood at the starting post in the crouch start position. Simultaneously with the "Go!" command, a visual signal for time-keepers standing at the finish mark was given. During the tested ones' covering the distance, they were watched so that they did not reduce the pace of running before the finish. Only one attempt was allowed. In a round, two and more tested students took part, but for each one, their timing was recorded against the stopwatch with an accuracy to 0,1 second. The test was conducted in such weather conditions under which the tested ones could show their usual, comparable results. The 1000-meters race characterizing endurance development level was conducted on the stadium track, too, with a standing start, and the time of running was recorded.

# 4 Results and Discussion

At the first stage, the research consisted in studying physical development, physical fitness, and functional characteristics of the circulatory system, as well as their trends throughout the academic year, in students of years I and III of the physical education faculty who had a significant volume of exercise in sport subjects combined with track and field athletics training (races of various distances).

The comparative analysis of anthropometric and physiometric measures in students of years I and III of the physical education faculty at the beginning of the academic year has found valid distinctions in height, weight, and chest circumference. The pattern of morphofunctional indices representing physical development level and the change of physical qualities development level (the latter was assessed by special tests in the first- and third-year students during the academic year) plotted against time (Table 1) is of a great interest.

Table 1 Comparative data of physical development, physical fitness, and functional indices of the circulatory system in the students of the physical education faculty (M±m)

Indices	Research	Years						
muices	stage (term)	I	III					
Height, cm	I	176,7±1,057	178,4±1,070					
	II	177,1±1,059	178,5±1,075					
Weight, kg	I	71,5±1,425	76,0±1,676					
	II	72,3±1,490	75,8±1,726					
CC	I	92,7±1,178	96,7±0,933					
CC, cm	II	95,1±1,095	97,1±1,099					
Testing								
100 m race,	I	13,0±0,099	12,9±0,108					
sec	II	12,9±0,105	12,0±0,125					
1000 m	I	4,02±0,011	3,03±0,045					
race, min	II	3,09±0,049	2,59±0,046					
	Rela	ative rest condition						
Systolic								
blood	I	118,09±1,250	111,31±1,003					
pressure,	II	116,07±1,230	110,03±0,020					
mm Hg								
Diastolic								
blood	I	74,31±1,300	71,12±1,051					
pressure,	II	72,04±0,901	69,05±0,964					
mm Hg		50.00.4.505	** ** 1 00					
HR, bpm	I	70,22±1,707	66,56±1,007					
	II	70,03±1,123	67,43±1,087					
0 1		After exercise	1					
Systolic	100	120 00 11 250	116 22 11 002					
blood	100 m	128,08±1,350	116,32±1,003					
pressure,	1000 m	114,08±1,230	109,01±0,040					
mm Hg Diastolic								
blood	100 m	73,33±1,300	70,62±1,051					
pressure, 1000 m		73,33±1,300 72,06±0,901	69,05±0,964					
mm Hg	1000 III	72,00±0,901	09,03±0,904					
HR, bpm	100 m	125.02±0.907	120,06±1,003					
	1000 m	132,43±0,596	123,71±1,201					

Source: Pozharova G. V., Elaeva E. E., 2018-2019

Interpreting the table data, one can note that higher speed qualities and endurance figures are observed in the senior years' students. According to the authors' observation, such physical qualities as speed (100 m race) and endurance (1000 m race) are validly higher in the students of the year III, which is, clearly, owing to consistent learning and training events in sport subjects during the three years of studying at the faculty of physical education. In particular, by the end of the academic year, the 100-meters race indices characterizing speed qualities have improved by 0,9 sec (9,3%) on average, and there has been an 8,4% increase in the 1000-meters race figures representing the development of endurance.

One of the highly informative indices of cardiac factors adapting to continuously changing extracorporal conditions is the arterial blood pressure (ABP). The data shown in Table 1 represent a clear downward trend of the ABP both at rest and after exercise. So, on average, the students' systolic blood pressure indices are 9,4% lower (119,3 mm Hg in the first-year students and 111,6 mm Hg – in the third-year ones). At rest, HR in the first-year students is 70 beats per minute on average, and 67 – in the third-year ones, i.e. the difference amounts to 10%. A downward trend can be traced in the HR after exercise, too. In the first-year ones, its value is 132 beats per minute, while it is 123 in the third-year students, which is 9,3% less.

As a rule, this gives evidence about the growing training level and adaptation of the cardiorespiratory system to physical activities.

HR is known to be a keen indicator of neuro-humoral regulation of the heart and adaptation capacities of the body (Elaeva et al., 2018). In particular, the analysis of HR in students of various years demonstrates a valid trend for its reduction with age. It is common knowledge, too, that heart rate slows down with the development of adaptation capacities of the body owing to stronger effects of the vagus nerve centers on the heart function. It can also be thought that in students of the first years who are less adapted to exercise, essential shifts of regulatory mechanisms are noted towards the sympathoadrenal regulation mechanisms prevailing significantly.

For finding out the change in vegetative regulation of the cardiovascular system during adaptation to learning and physical activities in most detail, the authors have conducted the analysis of cardiac rhythm parameters in the same tested students in the years I and III. This analysis has shown that it is over the training day and over the academic year that the patterns of change in regulation of chronotropic function of the heart are the most essential (Table 2).

Table 2 Characteristics of cardiac rhythm pattern in students over the academic year (the average values for the entire group)

Indices		Mo, sec	A <sub>Mo</sub> ,%	MxDMn, sec	TI, rel. units		
Year I							
Test period							
October	before classes	0,64±0,02	36,7±0,9	0,24±0,02	116,8±4,1		
	after classes	0,74±0,01	31,9±1,1	0,30±0,01	73,6±3,8		
March	before classes	0,76±0,01	35,5±1,3	0,29±0,01	90,2±3,1		
	after classes	0,83±0,01	30,2±0,7	0,33±0,01	58,6±2,9		
Year III							
October	before classes	0,71±0,01	39,1±0,9	0,21±0,01	145,3±7,4		
	after classes	0,82±0,01	32,5±1,1	0,30±0,01	82,1±7,2		
March	before classes	0,75±0,01	31,7±0,9	0,29±0,01	89,9±3,6		
	after classes	0,83±0,01	28,9±1,3	0,34±0,01	87,9±2,3		

Source: Pozharova G. V., Elaeva E. E., 2018-2019

Analyzing the data of Table 2, it can be concluded that throughout the academic year on average for the group, especially in the first-year students, the initial (before classes) functional status of the cardiovascular system is changed. At the beginning of the academic year, a quite high level of sympathetic effects (Mo = 0,64-0,65 sec, MxDMn = 0,22-0,26 sec) and the central regulation (TI>110) was registered that characterize the condition of "mobilization readiness" for work.

In the research representing the third-year students' cardiac rhythm variability, it is seen that the level of sympathetic effects and central regulation on the activity of the heart is much lower in the initial condition, and parasympathetic effects get stronger: MxDMn goes up, while TI goes 20–30% down (p<0,01).

During the training day throughout the year, a steady response of the body to training activities has been noted in the students. The response was characterized by stronger parasympathetic effects (a valid increase in Mo and MxDMn) and by a reduced level of the central regulation (a valid decrease in TI). The intensity of diurnal changes in regulation of chronotropic function of the heart is well illustrated by the adaptive value calculated according to the integral index (TI) as the ratio of the difference of the index value before and after classes to the initial level (in percent).

The first-year students' adaptive value ( $V_{Ad}$ ) is 36-37% on average and it does not change throughout the academic year. In the third-year students,  $V_{Ad}$  amounts to 49% in the first study (before classes) and it is much lower (27%) in the second one (after classes). A steady response of the body to the daily learning activity can be considered as a response of self-adjustment having formed during adaptation to the learning activity.

A lower level of sympathetic effects and stronger parasympathetic effects, a lower level of the central regulation of activity of the heart in the second study both in the students of

year I and III give evidence about the overall reduction of the cardiovascular system activation level.

For identifying the influence of the total of learning events, each tested one's level of functioning and pattern of responding to exercise was analyzed according to the behavior of statistical parameters of cardiac rhythm. For this assessment, gradations of the functional status according to the values of TI – the integral value characterizing the balance of regulation levels ensuring the optimum activity level of the heart - have been suggested: TI>180 – tension, TI=180-60 – adaptive regulation, TI<60 – a reduced level of activation of the cardiovascular system. According to the said gradation, in all studies, TI has shown their valid redistribution during the day: in year I, the distribution according to groups did not change during the year, while it did significantly from term I to term II in year III. In the first year, 28% of the students start their training day at a reduced level of activation of the cardiovascular system, and the number of such students validly increases up to 57% (p<0.01) by the end of the learning events. In 26% of the students, tension of the cardiovascular system is registered before classes, and their number is not higher than 10% by the end of the classes (p>0,05). The number of students whose heart response ranges within the adaptive change zone goes from 46% down to 33% during the day (p>0,05).

In the third year, a similar daily pattern has been found: the number of students having a reduced cardiovascular system activation level increases from 22% to 67% (p<0,01) from the beginning to the end of classes in October, and in the second study, in term II, their numbers increase both before classes (52%) and after classes (71%). Therefore, over half of all the students of years I and III complete their training day with a lower level of activation of the cardiovascular system which is characterized by a sharp decline in the tone of sympathetic effects, stronger parasympathetic effects, and decentralization of cardiac rhythm control.

# 5 Conclusion

Finally, the authors would like to note once again that the status of the cardiovascular system is one of the critical factors limiting physical capacities of the body. It follows from that that assessment of blood circulation indices can be an important tool for controlling the efficiency of provision of the body with oxygen and, as a consequence, for prevention of various diseases

The monitoring survey of anthropometric and physiometric figures, as well as physical fitness results of students of years I and III of the physical education faculty presented in this research has shown essential differences in the level of their physical development and physical fitness against time. First of all, the fact of development of adaptation capacities of the cardiovascular system is of interest, which was manifested in saving its activity both at rest and after exercise. This is a measure of the favorable influence of physical training on the heart, it points to gaining a higher functional reserve of the system and contributes to prevention of pre-pathological and pathological phenomena developing in the cardiovascular system.

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Primary Paper Section: A

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# PEDAGOGICAL CONDITIONS CONDUCIVE TO THE DEVELOPMENT OF ARTISTIC AND AESTHETIC COMPETENCE OF FUTURE TEACHERS IN THE UNIVERSITY EDUCATIONAL PROCESS

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Abstract: The purpose of this paper is to provide a theoretical substantiation of the pedagogical conditions necessary for efficient development of artistic and aesthetic competence of future teachers in the educational process at university. In order to achieve the research objectives, the authors used such theoretical methods of research as analysis, synthesis, comparison, systematization of materials on the research problem, forecasting, designing. The key result of the conducted research is identification and substantiation of pedagogical conditions conducive to the development of artistic and aesthetic competence of a future teacher in the educational process at university.

Keywords: future teacher, supplementary general education program, research objectives, educational process, pedagogical conditions, practice-oriented assignments, socio-humanitarian disciplines, artistic and aesthetic competence.

#### 1 Introduction

Presently, there exists a social order from the public and the state for future teachers with a high sensitivity to art, understanding of beauty in the art and the surrounding world, developed aesthetic taste, high artistic and aesthetic skills and an aspiration to create the beauty, involvement in creative activity (Almukhambetov et al., 2015; Arslan 2014; Bereczki & Kárpáti, 2018; Mullet et al., 2016). The global competitiveness of the Russian education, the Russian Federation ranking among the top 10 countries in terms of the general education quality is the goal of the National Project Education. In turn, the developed artistic and aesthetic competence of a future teacher is one of the indicators of their preparedness, competitiveness and mobility in today's world. In the modern educational paradigm, the requirements applied to a modern specialist undergo changes, which require an immediate review of the design, content, forms and methods of professional training of a future teacher in the educational process at a university for developing their artistic and aesthetic competence (Vardanyan et al., 2018; Kenny et al., 2015).

The existing programs of teacher training based on the Federal State Standard of Higher Education in the field of training 44.03.01 Pedagogical Education (Bachelor's Degree) do not fully ensure the development of the necessary competences in future teachers (Shukshina et al., 2018).

In addition, as evidenced by the results of the preliminary study at Mordovian State Pedagogical Institute named after M.E. Evseviev on the initial level of artistic and aesthetic competence of future teaches, about 80% of students do not have the sufficient level of this competence, which is the factor having a negative impact on the image of a highly qualified specialist and will lead to his/her reduced effectiveness in profession (Shukshina et al., 2018). In connection therewith, in the pedagogical science a need arises to find the tools and methods for the pedagogical university students to gain necessary professional competences, including the artistic and aesthetic competence.

# 2 Literature Review

The analysis of scientific literature (Ishmakova, 2016; Klykova, 2009; Massol, 2006; Stewart, 2012; Chernysheva, 2014; Chechukova, 2015; Chumakhidze, 2016; Aryabkina, 2015; et al.) helped us to arrive at the following definition of a phenomenon under study: the artistic and aesthetic competence of a future teacher as a combination of personality traits essential for the success of artistic and aesthetic activities, including

artistic and aesthetic knowledge, skills, attitudes, artistic and aesthetic orientation and motivation, masterful use of artistic and aesthetic means, adequate perception of artistic and aesthetic situations, readiness for the artistic and aesthetic activities (Ryzhov, 2018). The process directed at development of the artistic and aesthetic competence of future teachers in the educational process at university will be efficient in certain pedagogical conditions (Pozdeeva & Obskov, 2015; Valeeva & Karimova, 2014). Having analyzed the content of the term "pedagogical conditions", in our study we understand the pedagogical conditions as a combination of interrelated circumstances of the educational process aimed at achieving the necessary level of artistic and aesthetic competence in future teachers (Najn, 1995; Kupriyanov & Dynina, 2001).

# 3 Research Methodological Framework

The purpose of the paper is to identify and provide a theoretical substantiation of the pedagogical conditions necessary for efficient development of artistic and aesthetic competence of future teachers in the educational process at university. In order to achieve this purpose, the following objectives have been defined: first, the analysis of scientific literature, pedagogical experience and regulatory documents governing the educational process at university (Federal State Standard of Higher Education – Bachelor's Degree in the field of training 44.03.01 Pedagogical Education (Order N 121 dd February 22, 2018), Professional Standard of a Teacher); second, the identification and description of basic pedagogical conditions conducive to the development of artistic and aesthetic competence of a future teacher in the educational process at university; third, the creation of research assignments aimed at the development of artistic and aesthetic competence of a future teacher in the educational process at university; fourth, the development of a supplementary general education program "Artistic and Aesthetic Competence of a Future Teacher"; fifth, the development of a set of practice-oriented assignment of artistic and aesthetic nature for future teachers during their pedagogical internship.

In order to achieve the research objectives, we used such theoretical methods of research as analysis, synthesis, comparison, systematization of materials on the research problem, forecasting, designing.

# 4 Results and Discussion

Based on the theoretical analysis and pedagogical experience, we have identified the following pedagogical conditions conducive to the development of artistic and aesthetic competences of a future teacher in the educational process at university: unleashing the artistic and aesthetic potential of certain sociohumanitarian disciplines included in the basic part of the curriculum (Pedagogics, Philosophy, History, Russian Language and Speech Culture, Foreign Language (English), Physical Culture and Sport, Life Safety); incorporation into the educational process of the supplementary general education program "Artistic and Aesthetic Competence of a Future Teacher"; development and use of a set of assignments of artistic and aesthetic nature for future students during their pedagogical internship.

The first condition is geared to unleash the artistic and aesthetic potential of certain socio-humanitarian disciplines included in the basic part of the curriculum (Pedagogics, Philosophy, History, Russian Language and Speech Culture, Foreign Language (English), Physical Culture and Sport, Life Safety). The inherent artistic and aesthetic potential of socio-humanitarian disciplines may be identified and the content of education may be supplemented in order to foster the artistic and aesthetic competence of future teachers with account of the

above requirements using the block-modular structure set out in the Federal State Standard of Higher Education - Bachelor's Degree in the field of training 44.03.01 Pedagogical Education (Order N 121 dd February 22, 2018). The content of certain disciplines may be expanded to include the research assignments directed at the development of artistic and aesthetic competence of a future teacher, supplementing the educational program and sparking the aesthetic attitude towards the world, motivation to engage in creative artistic and aesthetic activities, for creative growth, etc.

The analysis of educational programs revealed that certain sociohumanitarian disciplines in the field of training 44.03.01 – Pedagogical Education, such as: Pedagogics, Philosophy, History, Russian Language and Speech Culture, Foreign Language (English), Physical Culture and Sport, Life Safety contain a powerful potential for the development of artistic and aesthetic competence of a future teacher that is not fully used, but may be used by their inclusion in the research tasks directed at the development of this competence.

Below we will provide some examples of the research tasks within the disciplines Pedagogics, Philosophy, History, Russian Language and Speech Culture, Foreign Language (English), Physical Culture and Sport, Life Safety.

Thus, the research assignments within the Pedagogics discipline may cover the following:

- Analyze content of a school curriculum (of own choice) in terms of presence of aesthetic education assignments;
- Analyze the artwork (a movie, a theater play, a concert, etc.) in terms of its possible aesthetic pedagogical impact.

Performance of such research assignments will contribute to the awareness of future teachers of the importance of developed artistic and aesthetic competence for self-fulfillment in pedagogical activity, appreciation of the value of artistic and aesthetic knowledge for solving the applied tasks in pedagogical activity, acquisition of the knowledge on basic means of artistic and aesthetic education, building the readiness to develop artistic and aesthetic taste in future students.

Below we provide some examples of the research assignments within the Philosophy discipline:

- Aesthetics concepts by Plato, Aristotle;
- The antique ideal of human beauty (Middle Ages, Renaissance, Enlightenment, etc.).

The proposed research assignments within the Philosophy discipline will contribute to a better understanding of aesthetic values, their importance in creativity and everyday life, the ability to navigate among them, the understanding and ability to explain the phenomenon of culture.

Within the History discipline, the following research assignments may be offered:

- Examine the reproduction of the painting by Ilya Repin "Zaporozhian Cossacks Write a Letter to the Turkish Sultan", and try to "read" it, offer the text of the letter, which could have been written by Cossacks to the sultan;
- Write an essay about one of the family relics in your house, what family fables, legends, stories do you know?

Performance of such research assignments will contribute to acquisition of knowledge on the forms and types of cultures, the basic cultural-historical centers and regions of the world, regularities of their functioning and development; knowledge of history, culture of Russia, its place in the system of global culture and civilization.

Within the Russian Language and Speech Culture discipline, the following assignments were created:

- Make a methodical conclusion on the efficiency of use of a painting for developing creative speech skills;
- Explain why work with a painting boosts the creative activity of students and promotes the development of their mental abilities and logical thinking.

Performance of such research assignments will contribute to the development of the future teachers' need to improve own speech, gain artistic and aesthetic knowledge, skills to take part in a discussion by picking the language means appropriate to the artistic and aesthetic situation, an ability to correct inadequate speech behavior (own or of a partner) by artistic and aesthetic means.

The research assignments within the Foreign Language (English) include:

- Work with songs in English;
- Assignments for work with the literature pieces.

Performance of such research assignments will contribute to the development of dialogical and monological speech with application of the most common and lexicogrammatical means in various artistic and aesthetic situations.

Within the Physical Culture and Sport discipline, the following research assignments are offered:

- Means of artistic and aesthetic education in the physical activity;
- Sports in the antique artworks.

Performance of such research assignments will boost the motivation of future teaches for creative artistic and aesthetic activity and creative growth, ability to perceive, understand and interpret the artworks, to understand the language of art; to develop the artistic and aesthetic taste.

Within the Life Safety discipline, the following research assignments are offered:

- The role of paintings, music, literature and art in shaping perceptions of health and healthy lifestyles;
- Technical aesthetics and life safety.

Performance of research assignments within the Life Safety discipline will develop a future teacher's ability to pick the needed means for solving certain artistic and aesthetic problems, to find the artistic and aesthetic meaning and purpose of different situations in professional life.

The content of the offered research assignments is related to the studied lecture materials, which should be discussed and checked during practical classes. Results of the completed research assignments may be presented in different ways: a report with a presentation, an illustrated presentation; a poster presentation; an educational film; an article; a photo album; a report; a project of social value; a verbal journal; a thematic tour, etc.

The second pedagogical condition is to incorporate into the educational process a supplementary general education program "Artistic and Aesthetic Competence of a Future Teacher". The supplementary general education programs represent a system of knowledge, skills and abilities essential for the holistic development and education of an individual so that he/she could lead a full life in the modern socium. Such programs help to develop the multifaceted personal qualities, instill the universal human values in students and identify and satisfy to the fullest extent their need in cognition and creativity, help them to achieve self-fulfillment and personal self-determination, and prepare them for an independent professional life (Kuyumcu, 2012).

Based on the above, we have developed a supplementary general education program "Artistic and Aesthetic Competence of a Future Teacher". This program is designed to prepare the Bachelors in the field of training "Pedagogical Education". The

total duration of the program is 24 hours and includes theoretical (4 hours of lectures) and practical (8 hours of practical classes) parts, and 12 hours of unsupervised work.

The structure and content of the developed assignments within the supplementary general education program comply with the requirements of the Federal State Standard of Higher Education in the field of training 44.03.01 Pedagogical Education (Bachelor's Degree) and the Professional Standard of a Teacher. This program was discussed at a meeting of the Department of Pedagogy, and was implemented at Mordovian State Pedagogical Institute named after M. E. Evseviev, with some assignments (in particular, those included in the second module) used at general education institutions, where the major departments of the Institute are represented, and students, the teachers to become, do their internships (Kadakin et al., 2017).

A distinctive feature of the developed program is a practiceoriented approach to the process of future teacher preparation in the context of axiological and competence-based paradigms of education (Shukshina et al., 2016).

The program is focused on the development of artistic and aesthetic competence of a future teacher, and implies achievement of the following objectives:

- Students learning theoretical fundamentals of the artistic and aesthetic competence;
- Obtaining the knowledge of methods, forms and technologies for developing the artistic and aesthetic competence;
- Developing the skills for completing the artistic and aesthetic assignments of creative and research nature, modelling the artistic and aesthetic situations from the real professional life and working with the project tasks of artistic and aesthetic orientation;
- Cultivating a keen interest in developing the artistic and aesthetic competence of a future teacher.

The content of the supplementary general education program is built to a modular design, and includes two major modules: a theoretical module is focused on the study of theoretical materials, and a practical module is involved with the development of certain skills and abilities during practical classes. Each module also includes homework assignments.

The first module "Theoretical Fundamentals of the Artistic and Aesthetic Competence" includes the lectures which are meant to create a theoretical understanding of the artistic and aesthetic competence of a future teacher as a pedagogical phenomenon, in particular, the progression of views on the problem of artistic and aesthetic competence of a future teacher over time, as well as a structure and content of this competence.

During the first module, it is proposed to use various forms of in-process assessment: individual interviews, review of notes, express testing with mutual checking. The final summing assessment of the module "Theoretical Fundamentals of the Artistic and Aesthetic Competence" is carried out in the form of a problem-specific discussion.

The second module "Technology for Developing the Artistic and Aesthetic Competence of a Future Teacher" is designed to develop the artistic and aesthetic skills, to transfer to students the technologies for developing the artistic and aesthetic competence (creative teamwork technology, web-quest, technology for organizing and conducting guided tours, technology for organizing the festive and other events of artistic and aesthetic orientation). The assessment for the second module is carried out by checking the completed assignments.

Completion of the supplementary general education program is marked with the final defense of a methodological training manual for the pedagogical internship at school.

The program has been complemented with the following educational assignments to be performed by students at home:

compile a dictionary of basic concepts and terms: competence, aesthetics, artistic and aesthetic competence, artistic and aesthetic education, etc.; make a chart reflecting the structure and content of the artistic and aesthetic competence of a future teacher; name the main time periods associated with progression of the views on the problem of artistic and aesthetic competence of a future teacher; conduct self-diagnosis to find our your level of artistic and aesthetic competence, etc.

After completion of the program, a reflexive analysis should be performed followed by assessment of the level of developed competence.

Thus, a specially developed course in the form of the supplementary general education program "Artistic and Aesthetic Competence of a Future Teacher", and its implementation, will help students to acquire a system of theoretical knowledge, practical skills and abilities related to the development of artistic and aesthetic competence.

The third pedagogical condition consists in the use of a set of practice-oriented assignments of artistic and aesthetic type for future teachers during their pedagogical internship. In the system of future teachers' training, pedagogical practice is one of the major forms of teacher's professional evolvement, which allows synthesizing theoretical knowledge and practical experience (Orkibi, 2012). It is possible to master the art of teaching and develop readiness for pedagogical activity only through interpenetration and intersectionality of theoretical and practical training of a future teacher: neither of professional skills and abilities may be developed only in the classroom (Mamontova et al., 2016; Shukshina et al., 2018). Introduction of a set of artistic and aesthetic tasks for students doing their pedagogical internship at school will help to develop the readiness of future teachers to perform artistic and aesthetic activities with students, corresponding to the activity component of the artistic and aesthetic competence of a future teacher.

Below we provide the examples of tasks for interns who independently work on the development of their artistic and aesthetic competence during pedagogical internship at school.

- Identify the level of aesthetic educatedness of students in your class.
- 2. Prepare and conduct a lesson on your specialty subject using the means of aesthetic education.
- Jointly with a class supervising teacher, create a plan for raising the aesthetic culture of students outside the classroom hours.
- Render assistance to the class activists with regard to preparation and conduction of an extra-curricular hour on artistic and aesthetic topic.
- Jointly with a class supervising teacher, organize a nature trip, a tour to the local architectural monuments, a visit to an exhibition hall, to the museum of folk crafts. Ask students to describe their emotions in mini narratives and to provide feedback.

# 5 Conclusion

Thus, the identified and substantiated pedagogical conditions conducive to the development of artistic and aesthetic competences of a future teacher, in particular, unleashing the artistic and aesthetic potential of a number of socio-humanitarian disciplines included in the basic part of the curriculum (Pedagogics, Philosophy, History, Russian Language and Speech Culture, Foreign Language (English), Physical Culture and Sport, Life Safety); incorporation into the educational process of the supplementary general education program "Artistic and Aesthetic Competence of a Future Teacher"; development and use of a set of assignments of artistic and aesthetic nature for future students during their pedagogical internship, are necessary to ensure the effectiveness of a process directed at the development of the artistic and aesthetic competence of a future teacher in the educational process at university.

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#### **Primary Paper Section:** A

Secondary Paper Section: AM, AN

# THE STUDY OF EMPATHY AMONG SPECIALISTS WITH DIFFERENT TRACK RECORD WITHIN THE SCOPE OF SYSTEMIC-CONTEXTUAL PSYCHODIAGNOSTICS

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Abstract: The purpose of this research is to examine the empathy of specialists with different track record. For accomplishing the research objectives and testing the hypothesis, a combination of research methods was used, including: theoretical analysis and consolidation of psychological science findings on the problem; ascertaining experiment; mathematical processing method with the use of Fisher's  $\phi^*$  criterion. The theoretical analysis of literature helped to reveal that empathy is one of the important professional qualities of any specialist, including employees of the penal enforcement system. The study carried out within the scope of SCP-diagnostics enabled us to identify the differences in empathy manifestations among specialists with different track record.

Keywords: empathy, compassion, professional empathy, career, employees of the penal enforcement system, context, system, systematic-contextual psychodiagnostics.

#### 1 Introduction

The cultivation of empathy, as a person's ability to feel compassion for others and understand their state of feelings, is one of the essential components for moral development of a human from childhood to adulthood.

The empathy as an ability to sense, resonate with and understand other people's emotions has been widely studied by both foreign and domestic psychologists.

Empathy is an important element to "the emotional culture of an individual" responsible for social skills that facilitate interaction with others. Compassion is an indicator of humaneness. We all in our lives regularly listen to, support and try to understand others. Some of us do it easily, while for others this task is hard to handle. This is particularly pronounced in the communication skills and relationships of people of social occupations.

Despite extensive research, there are still many contentious points, unexplained mechanisms and manifestations of empathy in people of different ages and professions. Researchers face the task of creating a single theory of empathy, analyzing its functions and exploring the process of cultivating empathy in modern people. The further research of various problems of empathy will help to address many applied tasks. First of all, it will facilitate and improve interaction between people.

The professional life of employees of the penal enforcement system is filled with overwhelming emotions, psychophysical strain and multiple factors causing stress, all of which take a toll on the professional motivation of employees, and, consequently, on the development of empathy.

## 2 Literature Review

One of the first definitions of "empathy" was offered by Z. Freud (1995). He wrote that therapists should take the patient's mental state into consideration, put themselves into this state, and try to understand it and compare it with their own state (Freud, 1995). In Russian psychology, the term "empathy" began to be used in the early 1970s owing to the works of T. P. Gavrilova (1975). Viewing "empathy" as a product of communication, the author considers it as a purely emotional substance that helps to gain moral experience and build own system of values.

D. G. Artamonov (2016) noted that empathy is seen in many works as the most important element conducive to the helping behavior. M. A. Ponomareva (2010) proposes to distinguish between short-term and long-term empathy. M. A. Zvenigorodskaya (2019) believes that empathic person is characterized by an ability to feel, recognize, and anticipate the emotional state of other people, and to show compassion in actions to improve the human well-being. In her work, A. G. Basova (2012) distinguishes two types of empathy: compassion and sympathy. According to A. P. Sopikov (2016), there are three types of empathy: emotional, cognitive, and behavioral.

The level of empathy may depend on a number of factors. Thus, a study conducted on students from different fields of training showed that the level of empathy depends on the chosen profession. Thus, the level of empathy is higher among future psychologists and lower among future engineers (Morozova et al., 2018). And the study we conducted within the "Change" project – a system of art therapy for substitute families, in 2016–2017, showed that the substitute families have a medium level of empathy (Kargin & Shlaeva, 2017).

Empathy is also one of the important professional qualities of any specialist, including employees of the penal enforcement system. Professional empathy is an important personal and professional dimension.

Personal traits of an employee of the penal enforcement system have long been of interest in psychology research.

O. V. Korzhova (2011) notes that qualities essential for profession should be studied in conjunction with enforcement activities. And one of such qualities is empathy.

Professional empathy, as Shalyukhina (2016) writes, is the cornerstone of professional and personal foundation of almost any specialist, including employees of the penal system. T. P. Gavrilova (1975) expressed an opinion that empathic responses depend on a complex intertwining of education, social environment, various needs, interests, desires, moods, and a vast array of personality traits. The empathy may occur during a contact between people depending on the outcome of evaluative and cognitive activities of every participant to this interaction.

A. R. Musalaeva (2011) believes that the prevention of professional deformations consists in the development of systemic resilience giving a spur to the professional and career growth. This may be achieved through shaping the career aspirations, which structural components include motivation, reflection, and professional identity and help to reach unbiased comprehension and further improve the most important spheres of professional activity: emotional-volitional, social-behavioral, cognitive, organizational-activity.

According to A. O. Karnaukhova (2017), professional deformation is a negatively directed change in professional capacities and personal characteristics of a penitentiary staff member under the influence of working conditions and experience in the workplace. When we speak about professional deformation, we mean the influence of working conditions and job content on the negative change in personal qualities and behavior of employees. Penal enforcement officers belong to the special services personnel, which may explain the high risk of professional deformations.

The manifestations of professional deformations may include physical abuse, rudeness, unnecessary use of impact munition. O. V. Krapivina (2004) believes that emotional burnout is also a manifestation of professional deformation of social workers.

Therefore, psychological preparation of employees for professional activity takes on special significance, one of the purposes of which is to develop and cultivate these qualities in

employees. According to M. A. Selyanin, N. V. Vasilyev (2015), psychological training will contribute to the development of employees' professionalism provided it is delivered in a targeted manner and at a high methodological level with simulation of various extreme situations.

## 3 Research Methodological Framework

Our research was held at the Federal Public Institution "Pre-Trial Detention Center N 1" of the Russian Federal Penitentiary Service in the Republic of Mordovia. It was conducted between November 2019 and February 2020. A total of 52 employees took part in the research, including 26 employees with the track record of less than 10 years and 26 employees with the track record of more than 10 years.

In order to study the professional empathy of penal enforcement staff, the ascertaining experiment was carried out using the following diagnostic methods: I. M. Yusupov's Diagnostics of Empathy Level (Ilyin, 2013), Mehrabian's and N. Epstein's s questionnaire Diagnostics of Capacity for Empathy (Karelin, 2007), and V. V. Boyko's Diagnostics of the Level of Empathic Abilities (Boyko, 2009).

The obtained diagnostic data were processed using primary and secondary mathematical statistics methods (percentage, the Fisher's  $\phi^*$  criterion – angular transformation). Comparative analysis of empirical results allowed us to identify the distinctive features of empathy in employees of the penal enforcement system.

The methodological basis of our study was constituted by the systemic-contextual psychodiagnostics (SCP-diagnostics) developed by A. A. Verbitsky (2015, 2016) and M. I. Kargin (2010).

SCP-diagnostics is based on the ideas of A. A. Verbitsky (2015, 2016) that, first, it should be aimed at studying an individual within a group and, second, the potential of a group consisting of individuals (Kargin, 2010). And it was the theory of contextual learning developed by A. A. Verbitsky (2015, 2016) that influenced the development of SCP-diagnostics (Dementieva et al., 2018).

When speaking about psychodiagnostics, it should be highlighted that in a real diagnostic situation, the examination process is sensitive to many variables, i.e. the hidden requirements of the diagnostic situation, anxiety in the face of assessment, researcher's attitude, motivational status, self-presentation motives, etc. (Verbitsky, 2016). These variables interact with each other, creating constantly changing new contexts, and the psychologist observes the end product of these rather complex interactions (Verbitsky, 2015).

In SCP-diagnostics, when analyzing the concepts of "context" and "system", attention is paid to the fact that the development of each member of society occurs in certain social conditions and they are specific to different societies (Kargin & Chirkina, 2019).

The empirical research purpose is to explore the distinctive features of empathy in employees of the penal enforcement system.

The research objectives are as follows:

- Based on the principles of SCP-diagnostics, select a range of psychodiagnostic methods to explore various indicators of empathy in employees of the penal enforcement system.
- Conduct a research to identify the distinctive features of empathy in employees of the penal enforcement system.
- Describe the distinctive features of empathy in employees of the penal enforcement system.

#### 4 Results and Discussion

We will start our presentation of the research findings with overview of the results obtained under the I.M. Yusupov's Diagnostics of the Empathy Level. The research results indicate that 57% of employees whose track record is over 10 years out of the total number of respondents in this sample have a normal level of empathy, 31% of respondents have a high level of empathy. Only 12% of employees with the track record less than 10 years have a low level of empathy. A normal level of empathy was found in many employees serving for less than 10 years, to be exact, in 65% out of the total number of respondents in this sample. A low level of empathic abilities was observed in 31% of employees, while only 4% of respondents have a high level. Neither employees with a track record beyond 10 years nor employees with a track record under 10 years demonstrated extremely high or extremely low levels of empathy.

Further, we would like to analyze the results of our enquiry into the capacity for empathy among employees using the test questionnaire of A. Mehrabian and N. Epstein. The study results show that among employees with less than 10 years of service the medium capacity for empathy is most pronounced - 69% out of the total number of respondents in this sample. High and low levels of empathy were shown by the equal number of employees - 15% out of the total number of respondents in this sample. The analysis of the results obtained from our study of the capacity for empathy among employees serving for more than 10 years that only 4% of respondents have high capacity for empathy. The next in the degree of pronouncedness is the low capacity for empathy. It is characteristic of 31% of the total number of respondents in this sample. The medium capacity for empathy is observed in 65% of employees. There were no respondents with a very low capacity for empathy in either group.

The analysis of results of diagnostics of empathic abilities according to the method of V. V. Boyko (2009) showed that in the group of employees with less than 10 years of service there were no respondents with a very high level of empathic abilities. A medium level of abilities was observed in the majority of employees, 54%. A low level is typical for 38%. 8% of the total number of respondents with a track record of less than 10 years have a very low level of empathic abilities. The majority of employees of the penal enforcement system with more than 10 years of track record, more specifically 73%, have a low level of empathic abilities. A very low level was shown by 23% of respondents, while the medium level – only by 4%. Nobody demonstrated a very high level of empathic abilities.

In order to determine statistically significant differences in the level of empathy among employees of the penal enforcement system, for data mathematical analysis Mann-Whitney test was used. The results indicated 1% difference across 4 indicators: empathy level under the I. M. Yusupov's method "Diagnostics of Empathy Level", capacity for empathy under the A. Mehrabian and N. Epstein's questionnaire that measures the capacity for empathy and under the V. V. Boyko's method (2009) "Diagnostics of the Level of Empathy Abilities", the subtest "rational channel of empathy" and "emotional channel of empathy". The difference of 5% was revealed for 2 subtests: "intuitive empathy channel" and "identification in empathy" under the V.V. Boyko's method (2009).

Summing up the results of the empirical study, we determined that the respondents from both groups have, on average, a normal level of empathy. Such indicators as "capacity to express empathy" and "level of empathic abilities" are more pronounced among employees whose track record is less than 10 years. Employees with a track record of more than 10 years have lower results for these indicators. In order to determine statistically significant differences in the level of empathy among employees of the penal enforcement system, for data mathematical analysis Mann-Whitney U-test was used. Statistically significant differences were found at  $p \leq 0.01$  and  $p \leq 0.05$  levels.

The results of mathematical processing using Fisher's  $\phi$ -criterion helped us to identify differences in the features of empathy among employees with different track record, and the following was revealed:

- Analysis of the results of diagnostics using the I. M. Yusupov's method "Diagnostics of Empathy Level" found that the majority of employees have a normal level of empathy, the high level is typical for employees with less than 10 years of track record, and the low level is more clearly manifested in employees with more than 10 years of track record. Nobody from the samples had a very high or a very low empathy levels:
- Results of the survey based on the questionnaire of A. Mehrabian and N. Epstein suggest that most of the respondents in both groups have a middle level of empathy, a low level was more pronounced among employees with more than 10 years of track record, and a high level was more pronounced among employees with less than 10 years of track record There was nobody with a very low level of empathy;
- According to the data obtained under the V. V. Boyko's method (2009) for diagnostics of the level of empathic abilities, the medium level is more pronounced than the others among the employees with a track record of less than 10 years. Among employees who serve for longer than 10 years, only one respondent was found to have a medium level. The majority of employees with more than 10 years of track record demonstrated the low level of empathic abilities. Several employees from each group have a very low level of empathic abilities. There were no respondents with a very high level of empathic abilities.

When determining the significance of differences in empathy levels, it was revealed that all employees with less than 10 years of track record had a higher level of empathy than those with more than 10 years of track record, except for Subtest 4 "Empathy-Boosting Attitudes".

# **5** Conclusion

Empathic abilities represent an important dimension that defines personality of an employee, both at the stage of hiring and in the performance of job duties. Therefore, it is important to pay due attention to the emotional sphere of personality. Employees must have emotional resilience as concerns the working conditions and future professional competence in the discharge of their duties. In addition, it will allow to identify the direction of psychological assistance for developing the components of the emotional sphere: early prevention and identification of signs of emotional burnout, as well as counselling for employees at various stages of their service. Thus, the data obtained by the ascertaining experiment validates the hypothesis based on the assumption that there are differences in the empathy levels among employees with different length of service.

Psychodiagnostic examination within the scope of SCP-diagnostics helps to more accurately reveal the distinctive features of empathy in employees of the penal enforcement system. By using SCP-diagnostics we arrived at a conclusion that disregard by the psychologist of the context when interpreting the test and methodology results may lead to a situation, when having obtained the examination results, the psycho-diagnostician sometimes has no slightest idea how to use those and how to proceed. The results obtained in this research may help to prevent negative implications of work in this system, and to avoid professional deformations.

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# METAMORPHOSES IN THE RELATIONSHIP BETWEEN STATE AND CHURCH IN 1920S-1940S: REGIONAL ASPECT

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Abstract: The paper on the materials of the Mordovian ASSR analyzes regional aspects of the confessional policy led by the Soviet Union in the 1920s - 1940s, in particular its evolution from mass repressions against the Russian Orthodox Church, Muslim Ummah, Protestant communities to the commonly known ideological "relaxation" during the Great Patriotic War. Based on the analysis of regional materials the conclusion is made that locally the repressions and restrictions of the Soviet power against confessions almost never ceased (only their intensity changed), and "religious liberalization" during the war on the territory of Mordovia occurred to an extremely small extent.

Keywords: Mordovia, Soviet confessional policy, Orthodoxy, Islam, anti-religious struggle, Great Patriotic War, partial revival of confessional life.

#### 1 Introduction

The first half of the 20th century holds a special place in the country's history: World War I and the empire demise, the revolution and the civil war, the birth of the Soviet state, Stalin's modernization and defarming, victory in World War II and the emergence of a new superpower. It was a time when, in favor of accelerated industrialization and urbanization the centuries-old foundations of the Russian state and society laid primarily by traditional peasant and religious values, had been consistently and sometimes ruthlessly destroyed over two decades. However, in the harsh conditions when the Great Patriotic War begun, the atheistic power was forced to stop the raging war against God and appeal to the deep patriotic feelings of the peoples living in the multinational Soviet state that were greatly fed by their religious faith.

Scrutiny of the regional aspect in the relationship between state and religion within the indicated chronological framework allows to elucidate its peculiarities, the depth and scope of changes, the scale of persecution of pre-war times and the revival of religious life during the war with Hitler's Germany.

The population of counties in the Middle Volga provinces, in 1928 united to form the Mordovian District (from 1930 - Mordovian Autonomous Region; from 1934 - Mordovian ASSR), was engaged mainly in agriculture. Russian and Mordovian (Erzyan and Mokshan) peasants settled in Mordovia mainly practiced Orthodox Christianity, there were some Muslims (represented by local Tatar peasants) and small groups of Protestants. The image of Mordovia as an agrarian territory was upheld with censuses for at least four decades (the rural population made up 95.4% in 1926, 93% in 1939; 81% in 1950; 63.8% in 1970) (Razhivin & Shirokova, 2007, p. 33), which could not but affect the preservation of elements of traditional culture, especially among Mordovians and Tatars.

As is knows, in the post-October period, the policy towards confessions (especially towards the Russian Orthodox Church) was based on the Decree of the RSFSR Council of People's Commissars On the Separation of Church and State, and Separation of School and Church, published on January 23 (February 2), 1918. Already in the first years of the Soviet rule, it was implemented against the background of a pronounced divisive policy (support for "renewal"), large-scale anti-religious and anti-church propaganda, mainly directed against traditional Orthodoxy, which was associated with the Patriarch Tikhon. But the persecution of the Church and other confessions became

most outrageous during the first five-year plans - the time of grand economic, social, and cultural changes affecting every aspect of the Soviet society.

#### 2 Literature Review

In the USSR, the coverage of state and church relationship was almost infinitely dominated by the atheistic concept, according to which confessions (Orthodoxy, Islam, etc.) were presented as public institutions that contradicted the progressive development of the country following the path of industrialization, collectivization and cultural revolution. In Soviet historiography, a warmer attitude of the authorities towards the Russian Orthodox Church and other confessions during the Great Patriotic War did not receive any assessment.

And it was only in the second half of the 1980s, when the ideological pressure was lifted, that researchers were able to seriously focus on, first of all, the centuries-old history of Orthodoxy and Islam and their role in the formation and development of Russian civilization at various historical stages. Changes in the relationship between state and religion at the national level in the post-October decade, persecutions during the first five-year plans, and the revival of religious life during the Great Patriotic War were examined in detail in the works of M.I. Odintsov (2014) and A.S. Kochetkova (Odintsov & Kochetkova, 2014), D.V. Pospelovsky (1995), M.V. Shkarovsky (2010), and others.

The key features of the above processes on the territory of modern Mordovia are explored in the works of A.I. Belkin (1995, 2001), V.I. Laptun (Belyaeva et al., 2013), N.F. Belyaeva (Belyaeva & Yaushina, 2013; Belyaeva et al., 2013), V.V. Miroshkin et al. (2019), E.N. and N.F. Mokshin, E.N. Mokshina (2005), T. D. Nadkin, A.V. Malankin (2013), and others.

# 3 Materials and Methods

The research purpose is to analyze the regional aspects of the USSR confessional policy in 1920s-1940s (based on materials of Mordovian ASSR). The research objectives are as follows: analyze the mass repressions in a post-war period against the Russian Orthodox Church, Muslim Ummah, Protestant communities and their implications; to reveal the causes and peculiarities of ideological "relaxation" in relation to the religious life of people during the Great Patriotic War.

The methodological basis for the research was a multi-level analysis based on the diverse methodological principles. The abstract level of methodology applied in this research includes the general philosophical foundations of the cognition of being, such as the principle of objectivity and consideration of the multifactor nature of the phenomenon under study (here - the Soviet policy towards confessions in Mordovia); the synergetic approach, which through the term "bifurcation point" actually postulates the variative nature of the historical process (contrary to the popular cliche that "history does not tolerate the subjunctive mood"); a systemic approach based on the idea of a research target (here - relationship between state and confessions) as an integral complex of interrelated elements, i.e. a system; deductive (inference from the general to the specific) and inductive (inference from the specific to the general) methods. Thus, the use of both deductive and inductive methods helped to correlate each specific episode with the general setting in Mordovia, to consider the impact of state "atheistic" policy on socio-cultural transformation of peasantry in the region.

# 4 Results and Discussion

All the twists, turns and metamorphoses in the relationship between state and confessions during 1920s-1940s to a greater or lesser extent showed in the Middle Volga region, which included multinational and multi-confessional Mordovia.

In the first decade of the Soviet rule, the overwhelming brunt was absorbed by the monasteries being the centers of Orthodox spirituality. In addition, it was planned to decompose the church from within by creating a renovation current. If the first task, i.e. the closure of monasteries (in Mordovia: Chufarovsky, Kurilovsky, Svyato-Olginsky, Sanaksarsky, Sarovsky and other monasteries), opening (desecration) of holy relics was successfully handled by the authorities, the situation with "renovation" was not so unambiguous. A split of the Russian Orthodox Church from the inside, planned by the Joint State Political Directorate, actually failed, and the authorities had to abandon the "divide and rule" principle. In connection therewith, the task of undercutting religiosity in the society had to be tackled by different means.

Later, the League of Militant Atheists (LMA), established in 1925 with the Komsomol youth as its core, became "the assault force" in the fight against "religious vestiges". Its signature was demonstrative disrespect for religion and public insults to people who were religious and celebrated church holidays, who refused to participate in cleanup Saturdays and other Soviet events.

Transition to complete collectivization and de-kulakization in the fall and winter of 1929 in a peasant country meant a new page in the fight against religion, which still remained the backbone of peasant ideology.

This policy led to the following results: by 1934 there were 576 Orthodox churches in Mordovia, of which only 233 were functioning (data as of December 1, 1934 - the authors). For the incomplete four and a half months, from December 1, 1934 to April 10, 1935, the number of functioning churches went down to 71, and by the end of 1930s there was not a single really functioning Orthodox church left in the autonomy (Belyaeva et al., 2013, p. 33).

Some church buildings and monastic complexes were in the best case used for cultural and educational purposes, and in the worst case - destroyed, used as maintenance buildings and even as prisons (Chufarovsky monastery). The bright example is Kovylkyn district in MASSR, where, according to the data for 1938, in the villages of Shadim, Staroye Drakino, Mordovskoye Kolomasovo, Kochelaevo, Voskresenskaya Lashma, Volnaya Gumny, Parapino, Vechkino, Samavevka. Pokrovskoye, Vysokoye, Izosimovka, Troitsk the churches were converted into barns; two more churches in Troitsk were used to store building materials, and the fourth church in Troitsk was empty. In Alkin, Tokmov, Chepurnovka, Pokrovsk, Ezhovka clubs and reading rooms were arranged in churches; in Stary Drakin and Perevesie they were rebuilt into schools; in Kashaevo village, the church was a place where the electric power plant was installed; and in Budy village, an orthodox temple was turned into a cattle yard (Belkin, 2001, p. 239).

However, despite this situation, many believers in the pre-war republic secretly prayed and performed Orthodox religious rites. A typical case was described in the village of Muravyovka (Ruzaevsky district, MASSR) by Anastasia Sarasova, a local from the village where a church was closed. Then "people began to covertly gather and pray at homes. The communists or Komsomol members who married in religious ceremonies or baptized their children were expelled from the party. And still people got marries in religious ceremonies, and almost all children were baptized. I secretly brought the priest from the neighboring village, and he conducted a rite. So we never forgot the God. And those Communists, who came to remove bells from churches and to close churches, were not let in the houses to stay for a night, peasants would not give them a piece of bread or a cup of water, such was the hatred of people to the destroyers" (Epishin, 1992, p. 3).

It should be highlighted that in the first years of Soviet rule, the attitude of the newly established state to Islam and the Muslim Ummah was much more tolerant than to Orthodoxy. However,

in the second half of 1920s, the grip of the Soviet state on Muslims tightened. This tendency became fully apparent in Mordovia, where the local authorities, as part of intensified fight against religion, almost completely closed or destroyed all mosques and all madrasas without exception (Martynenko et al., 2016, p. 123).

By the end of 1930s, the same fate as that of many Orthodox and Muslim believers in Mordovia had befallen local Protestants: Baptists and Adventists either died in the repression or were sent to prisons or camps.

The beginning of the Great Patriotic War is associated with a new stage in the relationship between state and confessions, a new impetus for which was given by Stalin's meeting in the Kremlin on the night from 4th to 5th of September, 1943, with Metropolitans Sergius (Stragorodsky), Alexis (Simansky) and Nikolay (Yarushevich) and the subsequent restoration of the Patriarchate (Odintsov & Kochetkova, 2014, p. 181).

It is necessary to recognize that the patriotic position of the ROC, which, with a few exceptions, did not succumb to the temptations of collaborationism, contributed in no small measure to the weakening of the Soviet leadership. Orthodox churches that had been devastated over more than two decades of anti-Christian terror were reopening for worship.

But, on the other hand, the real life practice showed that the new instructions from the top were implemented very inconsistently at the local level, in various regions across the country, and the actual indulgence of local authorities towards the Church and believers was combined with all kinds of restrictive measures.

The revival of the Penza Eparchy of the Russian Orthodox Church, to which the Orthodox parishes of the Mordovian ASSR were referred, began in 1944 with the appointment of Bishop Mikhail (Postnikov), a man of great education and energy.

In the course of the research, it was revealed that by 1943 there was no single functioning church left in MASSR. While most buildings were still intact: out of 422 non-functioning church buildings in 30 districts within the republic, 378 were used for economic and cultural purposes (Yurchenkov, 2005, p. 127.) It was obvious that this gave some hope to the population of the republic's villages, especially since a considerable portion of the population preserved fairly strong religious sentiments and eagerly responded to changes in the policy of the Soviet leaders in the religious sphere.

However, at first some leaders of local Soviets did not realize that the government's policy toward religious organizations had changed. This often led to wrong actions and improper assessment of the situation. Against this background, two divergent trends in the attitude towards petitions from believers were observed: some interpreted these measures as permissive, while others, on the contrary, in every possible way hindered the expression of will of the religious citizens.

As a result, by December 1944 in Mordovia only three out of 72 requests for church opening received from believers were satisfied - from Temnikovsky, Saransky and Shiringushsky regions (Malankin, 2017, p. 86). Between 1944 and 1945, another 278 requests from believers from different MASSR regions for opening of churches were received, which attested that the villagers and the urban dwellers strongly need spiritual support. However, in 1945 only seven churches operated within the republic, one in Saransk and six in rural areas, and this number was very low (Belkin, 1995, p. 157).

As of June 1, 1945, in Mordovia 7 priests, 2 deacons and 1 psalmist were registered by the authorities and allowed to conduct church services (Yurchenkov, 2005, p. 153). By August 1946, there were already 19 churches and prayer houses in Mordovia, by the end of 1947, there were 27 churches, and 39 priests were registered (Belkin, 1995, p. 149).

Thus, the only way out for believers was to gather at home, where services, according to memoirs of residents from Govorovo and Meltsany villages in Staroshaigovsky district of the Republic of Mordovia, due to the absence of registered priests, were conducted by nuns from the nearby closed monasteries. The nuns baptized the newborns and read burial services over the dead. The local authorities were aware of this, but in the changed circumstances did not interfere (Field materials from N. E. Goryachev. Zernov Anatoly Fedorovich..., 2017; Field materials from N. E. Goryachev. Mishina Vera Nikolaevna..., 2018).

In the first post-war years, the flow of requests from the believers for reopening of churches did not stop: 146 in 1946, 111 in 1947, 106 in 1948 (Belkin, 1995, p. 157). However, most requests were not accommodated, as the authorities tried to keep the religious life of people under strict and highly restrictive control.

The revival of religious consciousness could not but raise concerns of the Soviet leadership, particularly as during religious celebrations in some villages there were cases when work in collective farms was stopped and pilgrimages to holy places revived.

Paradoxically, but Khrushchev's "Thaw", which affected many aspects of life and culture in the Soviet Union, not only did not extend to religious life, but on the contrary, brought a new wave of persecution against the Church and other religious communities in the USSR.

## **5 Conclusion**

Thus, the Great Patriotic War became a kind of landmark in the confessional policy of the Soviet state: the repressions of the post-revolutionary decade and the era of collectivization were replaced by partial liberalization of religious life, relaxation and even some manifestations of benevolence towards confessions on the part of authorities.

It is quite clear that J. Stalin and his retinue used the potential of the Church, which, despite persecution, wielded influence over a considerable portion of population in order to unite people in the face of the aggressor and bolster their patriotic sentiments. To a lesser extent this liberalization concerned Muslims and did not affect Protestant communities at all.

At the same time, in the backwoods and hinterland, locally, this change in confessional policy was almost not felt. As an illustrative example, this paper presents materials on the Mordovian ASSR, where during the war and in the first post-war decade, local authorities were extremely reluctant to open new churches, even despite the instructions from the top. As for the Muslims in Mordovia, until the "perestroika" era, the only functioning religious building for them was a mosque in the Altary village, Romodanovsky district. Religious relaxation of this period did not extend to the Protestants in Mordovia as a matter of principle: moreover, for Baptists and Pentecostals the trials in Saransk lied ahead in the early 1960s as part of the new anti-religious campaign initiated by Khrushchev.

However, repressive policies toward confessions (weakened at one time and then recommenced with new vigor) have not achieved the pursued goals: Russian peasants, including those in the region under scrutiny (Mordva, Tatars, Russians) in the vast majority maintained their commitment to religion.

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**Primary Paper Section:** A

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# USE OF INFORMATION TECHNOLOGIES TO MANAGE UNSUPERVISED ACTIVITIES OF FUTURE MUSIC TEACHERS

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Abstract: This paper reviews the relevant issues of professional training of future music teachers. The standards and regulations governing the educational process have been analyzed and the academic foundations in the researched field have been explored. A need to improve the unsupervised activities of students through the use of information technologies has been determined. An overview of the educational program based on which the future music teachers are currently trained has been presented. A questionnaire survey was conducted among the future music teachers, which results we present in this paper. The tasks from the field of music arts have been offered. The offered tasks may be used to provide methodical support and guidance to the students in their unsupervised activities within the module "Professional ICT Training of a Music Teacher".

Keywords: unsupervised activities, music education, information technologies, information competence, music teacher, educational program, professional training, professional activity.

#### 1 Introduction

In the present context of societal development, when the information technologies permeate across all human activities, it is important to adapt the future graduate to the real conditions already at the stage of professional training at the university. In today's world, a teacher is not the only source of information for a student (Gruzdeva & Tukenova, 2019).

The relevance of this research lies in the fact that transition of all activity areas to a new stage of the societal formation and development is an objective reality reflecting the present state of education. In this regard, the activity of an actor in various subject areas is associated with organization of the search, selection, use, assimilation and analysis of the obtained information (Medvedeva et al., 2018; Strielkowski & Chigisheva, 2018; Dmitrova et al., 2019; Soltovets et al., 2019). The most recent socio-cultural needs of the information society demand changes in the system of professional training of a specialist. Moreover, after enactment of the Professional Standard "Teacher" (Order of the Ministry of Labour of Russia dd 18.10.2013 N 544n On Approval of the Professional Standard "Teacher", 2013) another need emerged pertaining to the development of teachers' skills necessary for the efficiency and success in their professional activities. (Medvedeva et al., 2019). The requirements laid down by this document reflect the need for obtaining such ICT competencies as basic digital ICT competence; general pedagogical ICT competencies; fieldspecific pedagogical ICT competencies. Therewith, the need to develop music teachers is determined by the social demand for training of competitive and qualified specialists, as well as by the need to grow a creative personality capable to adapt quickly to the qualitative changes occurring in the labor market in the conditions of society informatization. In the conditions of implementation of the activity-based concept for the personality development, the importance of training the specialists geared towards active interaction with students in the process of education increases. However, we understand that with the advent of information technologies, the risks have arisen associated with insufficient immersion of students in the subject area, and it is for the management and coordination of this process that we consider it crucial to integrate tasks aimed at developing digital skills in the learning process. The teacher's supervision will help to avoid spontaneous use of various information resources. Use of information systems should be meaningful and efficient and be an effective tool for the professional activity of a music teacher in the subject area. In this connection, examination of possible ways to manage the unsupervised activities for the development of information technology skills of future music teachers is urgent and vital for designing an educational process aimed at raising a future professional - a music teacher.

#### 2 Literature Review

A.A. Tolsteneva and colleagues (2016) researched the process of management of unsupervised activities, and from the standpoint of this researcher, the management process is a purposeful influence on the groups of people in the process of production. The purpose of management is to ensure high efficiency of the managed system, which is expressed in the best possible achievement by the system of its goals with the lowest possible consumption of resources. In the opinion of another researcher, S.V. Beloborodova (2013), the system of management of unsupervised activities performed by extramural students is an educational and developing means representing the integral unity of scientific knowledge and cognitive activity, based on general laws and derived principles for management of unsupervised activities of students.

E.V. Zakharova (2008) considers unsupervised activities of students as a multi-faceted and multifunctional phenomenon having not only educational, but also personal and public value, and representing a way to organize the educational and cognitive activities of students under the guidance of a teacher, which purpose should be to solve educational and cognitive problems, explore educational and professional questions, thus contributing to the formation of cognitive independence, and triggering an ability and a need for self-education.

# 3 Research Methodological Framework

The theoretical value of the research lies in the study of the features peculiar to the professional activities of future music teachers in conditions of the information society. The quality of activities of future music teachers largely depends on their ability to obtain and process information. At the same time, the analysis of the main directions of professional training, the purposes of training of special disciplines, programs and textbooks shows that there is no solution to the problem of using digital means of professional purpose in the process of preparing the future music teachers for professional activity in the conditions of informatization. The training tasks developed through this research can also be used in the training of future music teachers pursuing the same field of study and the same specialty.

The following contradictions served as prerequisites for the research:

- between rapid changes in the standards and regulations governing the educational process and professional activity of a music teacher and the content of professional training of future music teachers;
- between the requirements placed by the employers to the university graduates and the insufficient level of digital competence of future music teachers;
- between the need for a music teacher to carry out unsupervised professional activities at school and the insufficient use of ICT means in practice when the unsupervised activities of future music teachers are organized.

The research hypothesis is based on the assumption that if the unsupervised activities of a future music teacher are managed with a focus on the skills in the use of ICT in their professional life, the quality of training of future graduates in the use of information technologies will be improved.

The research purpose is to provide a theoretical justification for a need to manage the unsupervised activities of students with a focus on the development of their information competence.

The research objectives are:

- To analyze the current state of professional training of future music teachers;
- To explore the demand for teaching staff competent in the subject area "Culture and Arts";
- To analyze the content of educational program in the field of training 44.03.01 Pedagogical Education, Music Specialty;
- To reveal the attitude of future graduates of a pedagogical university to the use of information technologies in their professional activities;
- To develop the training tasks intended to enable the management of unsupervised activities of future music teachers by means of information technologies.

The research methods: this paper employs such theoretical methods of scientific research as analysis of scientific literature, analysis of the wording of standards and regulations governing professional activity of future music teachers.

The empirical methods were also used in the course of the research: questionnaire survey of students, observation.

# 4 Results and Discussion

In 2019, by mutual efforts of regional executive authorities, employers and educational organizations of the Nizhny Novgorod Region the Regional Personnel Constructor project was launched to assess the need in the qualified staff. The functions of the Regional Personnel Constructor project, inter alia, were to ensure the career growth, provide support for professionals throughout their employment and introduce the postgraduate education service. The project covered high school students who were surveyed using the Country of Professionals tool. The survey aimed to reveal the levels of expression of the potential for professional development among students, and high results were observed for the field of study "Arts and Culture", thus, demonstrating a need to train professionals in this field, who are demanded in the labor market of Nizhny Novgorod region, and should be able to navigate in a massive flow of information; to handle diverse data in the subject area concerned, and to have a developed information competence in a broad

Let's explore the subject area "Arts". For teaching the subjects included in this module, a teacher needs an ability to use various information technology solutions to ensure intrasubject linkage within the subject area under scrutiny. It is obvious that a teacher specializing on this subject area should have the vast knowledge in the history of arts for the most efficient presentation of the educational material, and to accomplish this task, during the class the teacher may refer to various arts such as painting, photography, literature. In accordance with the Federal State Education Standard of the Primary General Education, the task of a music teacher is to transfer to the students the basic knowledge in the field of musical art and to develop their skills of intonational reproduction of basic music material. Along with that, a music teacher, who is a representative of the cultural community, should have general knowledge of this subject area. (Order of the Ministry of Education of Russia dd 06.10.2009 N 373 (revision dd 31.12.2015) On Approval and Enactment of the Federal State Standard of Primary General Education, 2009).

Therefore, the use of information technology solutions for education of a future music teacher is highly relevant in the modern context, when the digital tools and information systems spread across all spheres of life. And the unsupervised activities of students should include tasks involving work with information technology to polish the IT skills for further use in their professional activities.

Within the scope of professional training of future music teachers based on the educational program in the field of training

44.03.01 Pedagogical Education, Music Specialty, we created the module "Professional ICT Training of a Music Teacher". Throughout this module, the students carried out specially designed tasks. Before commencing training under this module, students are supposed to take the starting questionnaire survey intended to reveal their attitude to the use of information technology solutions in professional activities. The questionnaire survey should be conducted by the teachers engaged in implementation of the module. The questionnaire form was created by us specifically for the students studying in the field of training 44.03.01 Pedagogical Education, Music Specialty, in order to measure the attitude of future music teachers to the use of information technology in professional activities. The questionnaire survey covered 51 students of Kozma Minin Nizhny Novgorod State Pedagogical University in the field of training 44.03.01 Pedagogical Education, Music Specialty. The materials for the questionnaire survey were developed with account of key aspects. The survey questions were structured around three main dimensions: positive attitude towards the use of ICT tools in professional activities, indifferent attitude towards the use of ICT tools in professional activities, and strongly negative attitude towards the use of ICT tools in professional activities.

However, our survey of students, who are future music teachers, found that most respondents are negatively viewing the use of ICT resources in professional life. They believe it to be unreasonable. The questionnaire survey results are summarized in the figure produced by the authors (Figure 1).

Figure 1 Results of the questionnaire survey of students regarding the prospects of ICT use in professional activities



Source: authors

As seen from the diagram, 33 respondents are not going to use ICT in their professional activities, only 10 people see the possibility of using ICT in their professional activities and as few as 8 people will use ICT in their professional activities, which in our opinion is an acute problem.

Meanwhile, as stated in the professional standard, a music teacher should perform the following activities related to the use of information technologies, namely, develop the skills related to information and communication technologies (hereinafter ICT). Here we understand not only an ability to use the information technology solutions in professional activities, but also an ability to develop student's ICT skills (Sizova, 2018). In the professional routine of a music teacher that is related to the use of multimedia equipment and work with music notation software. In the teaching process such music notation software may be used as Muse Score, Sibelius, Final.

This problem becomes relevant also because "in the conditions of modernization of higher education the particular significance is attached to on-the-job training and improvement of the quality of extramural education" (Beloborodova, 2013). In this connection, the process of organization of unsupervised activities of students is becoming increasingly important. The researcher S.V. Beloborodova (2013) defines the following conditions for the most effective management of unsupervised activities of students: "Creation of information-communication educational space, collection of online feedback, individual monitoring, and introducing corrections in educational and cognitive activities. The conditions imply the creation of a spiritual and moral atmosphere; the use of the basic principles of pedagogical interaction (dialogization, problematization, individualization, and conscious approach to learning); and

organization of a dialogue-based management of unsupervised activities" (Beloborodova, 2013). Due to the growing volume and importance of unsupervised learning activities of students, the problem of self-regulation and self-control of students in organizing this process and maintaining conditions for fostering educational independence of bachelors and undergraduates from university teachers gets more and more acute (Yakovleva, 2019).

Kozma Minin Nizhny Novgorod State Pedagogical University is providing professional training to future music teachers in the field of training 44.03.01 Pedagogical Education, Music Specialty. Since February 2018, due to the enactment of the Federal State Standard of Higher Education in the field of training 44.03.01 Pedagogical Education, approved by the Order of the Russian Federation Ministry of Education and Science on February 22, 2018, N 121, the content of professional educational program in the above field of study has been adjusted. All components of this educational program have been revised. The content of the subject modules has been brought into compliance with the Professional Standard "Teacher" (Pedagogical activities in the field of preschool, primary general, basic general, secondary general education) (educator, teacher). A new structure of the basic professional educational program includes both methodological and subject-specific modules.

- Federal State Standard of Higher Education in the field of training 44.03.01 Pedagogical Education, approved on 22.02.2018, N 121 (2018);
- Professional Standard 01.001 "Teacher" (Pedagogical activities in the field of preschool, primary general, basic general, secondary general education) (educator, teacher), approved on 18.10.2013, N 544n (2013);
- Academic curriculum in the field of training 44.03.01
   Pedagogical Education, Music Specialty, approved by the by the meeting of the Academic Council of the Minsk University on 22.02.2019 N 6.

In the context of implementation of the basic professional educational program of higher education, psychological and pedagogical training modules as well as subject-specific modules have been developed. The subject-specific modules are intended to deliver training focused on the vocal and instrumental choral performance skills. Moreover, the design of educational program includes a separate module aimed at the development of information technology skills to be used in professional activities, named "Professional ICT Training of a Music Teacher". Within the above module, future music teacher will learn how to use various professional information solutions. Those include websites with theoretical music materials, audio records; music notation software of different type: both web and desktop applications. The purpose of this module is the development of information competence of a music teacher.

The unsupervised activities of a future music teacher may be organized as follows: the relevant professional information resources should be picked, and then specific tasks should be developed and selected which content should be directly related to the educational program profile.

Below we provide some examples of the developed tasks:

# Task 1

1. Write music scores for the piano piece "Ancient French Song" by P.I. Tchaikovsky (1995) from the Children's Album cycle of pieces for piano using Sibelius scorewriter program according to the given example (fig. 2).

Figure 2



Source: P.I. Tchaikovsky, Children's Album, Ancient French Song (Tchaikovsky, 1995, p. 26)

2. Write scores and then transpose those in two flat and in two sharp keys of the first degree of relationship on the circle of fifth.

This task is intended to develop the skills of independent work with Sibelius scorewriter.

In addition, the open digital space is rich in information resources which may be accessed by any Internet user. For example, MELODUS tool. MELODUS is a simple online music notation tool. For its operation a browser with HTML5 support is needed (and these are almost all modern browsers). Any user with minimal or even no musical education now has the opportunity to try it as a melodic composer and create simple melodies. We believe that this tool can be used to organize unsupervised activities aimed at developing the scorewriting and transposition skills needed by future music teachers for their professional activities. This tool offers a possibility to choose the note duration, whole, half, quarter, etc., the keys and alterations, and the tempo. For those users whose level of training in musical art is not high, for example, amateur users, students of educational institutions, etc., the tool has a Theory section, using which you can check the correctness of the created musical material.

# Task 2

1. Write scores with their further transposition using Melodus scorewriting tool (Fig. 3). We offer you to work with the piece of chamber-vocal music. "I'm Sad" romance by A.S. Dargomyzhsky (1947). Note material from the concertmaster's repertoire, which is appropriate for transposition into other tonalities.

Figure 3



Source: A.S. Dargomyzhsky, "I'm Sad" romance by (1947) (Dargomyzhsky, 1947, p. 257).

#### 5 Conclusion

High demand for specialists in the Arts and Culture field gives rise to a need to train music teachers meeting the requirements of the modernity and mobility. The use of information systems for professional training of music teachers may become an efficient tool for managing and organizing future professional activities. In this respect, it is important to strengthen the professional training of future music teachers with regard to allocation of their intellectual resources by engaging in the most optimal unsupervised activities at the stage of university training. The provided arguments point to the need to revise and reconsider the usual forms of organization of students' unsupervised activities. Introduction of professional information systems into the unsupervised activities of future music teachers and training on the use of information resources in the field of musical art will allow students not only to work with open-access information tools, but also to immerse deeper in the musical context, as within the said activities the student will obtain the valuable practical experience of work with sheet music as well as sound material.

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**Primary Paper Section:** A

Secondary Paper Section: AM, AL

# INTERCULTURAL COMPETENCE OF TEACHERS AS A CONDITION FOR EFFECTIVE IMPLEMENTATION OF THE MODEL FOR TEACHING A FOREIGN LANGUAGE IN THE CONTEXT OF THE POLYLOGUE OF CULTURES

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Abstract: This article describes the basic conditions for implementing the model for teaching a foreign language in the context of the polylogue of cultures. The authors put the figure of a teacher, considered as a master of pedagogical creativity both in the culturological, spiritual and moral aspects at the center of their research. Intercultural competence of the teacher includes multidimensional key elements: sociocultural literacy, extensive knowledge in linguistics, psychology, linguodidactics, interdisciplinary approaches in teaching a foreign language. Additionally, three important groups of professionally significant teacher's skills are identified and characterized. They are analytical, strategic planning and professional communication skills.

Keywords: polylogue of cultures, intercultural competence, teacher, intersubject connections, national and regional culture, professional activity.

#### 1 Introduction

Modern multicultural language education places special demands on the teacher (Galskova et al., 2018). First of all, it is about his/her ability to learn the specifics of regional, national and universal cultures as well as acquiring both spiritual and moral foundations of life in the modern linguo-ethno-sociocultural space of people's communicative coexistence (Prokhorov, 2017) and experience of cultural and universal understanding of the world (Kraevsky & Khutorskoy, 2007, p. 137).

Besides that, teacher's knowledge of personal and professional culture of interaction with all the subjects of educational process (students, colleagues, parents), as well as socio-cultural and intercultural communication skills, ensuring the success of social and professional, interpersonal and intercultural contacts, including foreign ones, are of particular importance.

Thus, the teacher should master all the structural elements of intercultural competence, which is a part of key social competencies, or rather, general cultural competencies, and is reflected in the content of general professional and professional competencies. Together, they determine the quality and level of professional communication of a foreign language (FL) teacher, his/her information and research culture, and the effectiveness of teaching. The latter requires to possess holistic and systemic knowledge in the field of linguistics, philology, linguoculture, development of native and foreign languages, domestic and other cultures, and sociocultural awareness.

It is possible to say that modern FL teacher is a person who is rooted in his/her own culture, understands it, speaks native language, and is aware of own universal essence, originality and national identity. However, it does not interfere with the understanding of the linguo-ethnocultural specifics of the other and other languages, perception and acceptance of the ideology promoting equivalence of languages and cultures as a norm of coexistence and mutual development in multicultural communities (Safonova, 2017) and, as a result, adequate interaction with communication partners belonging to different linguistic and cultural backgrounds.

From this point of view, a modern FL teacher can be called a specialist who must carry out his/her pedagogical activity at a fairly high level, while achieving consistently top results. Firstly, it is reflected in the development of students' communicative, creative and cognitive abilities, their personal characteristics, in communicating them to a FL and cultural facts characterizing the country of the language being studied, the culture of their own country and the region of their residence, creating positive

motivation for them to study both foreign and native languages and cultures. Secondly, it is revealed in educating and developing each student as a creative, independent, initiative, ethical and competent person, including the spheres of language and culture. Such requirements are updating the importance of addressing the theme of training FL teachers at a competence basis, taking into account the influence of modern intercultural and linguocultural factors on this process.

# 2 Literature Review

Currently, many researchers (Rosa & Matos, 2016) consider linguistic and cultural diversity as one of the most valuable elements of the world, European and Russian cultural heritage and as a philosophy of intercultural social, scientific and educational interaction in any multicultural and multilingual space (Popov & Chigisheva, 2015; Chigisheva, 2015a; Chigisheva, 2015b). In the political sphere, the fact that the diversity of language communities and cultures, being an invaluable unique heritage, should turn in the future from the factor that impedes dialogue between the representatives of different cultures, into a means of mutual understanding and enrichment is also becoming increasingly recognized (Galskova & Gez, 2005; Strielkowski & Chigisheva, 2019).

It indicates that multicultural and multilingual landscape of any country creates a fruitful basis for the development of multilingualism of the individual; strengthening of cross-country contacts and internationalization processes designates an urgent need to familiarize students with a foreign language and, accordingly, to improve those approaches and methods that are actively used today in linguacultural education (Han, 2019; Galskova et al., 2019; Soltovets et al., 2019).

Modern linguistic and cultural education is based on the ideas of competency-based approach, which has received a wide discussion in the pedagogical discourse both in Russia and abroad. The issues of construction and practical implementation of competency-based teacher education (Wu, 2018) and different tools used for these purposes (Horn et al., 2018), as well as the possibility for the formation of various kinds of competencies, for example, professional (Kravchenko et al., 2018), creative (Sydykova, 2018), intercultural communicative competence (Rojas, 2020) and many others are widely discussed.

Intercultural communicative competence has an important goaloriented value in teaching a foreign language (Chiocca, 2020), undergoes constant reconceptualization in the face of various multinational changes (Fantini, 2020) and affects the success of employment in the future. Despite the fact that a lot of research is devoted to the consideration of certain aspects of strategies for assessing intercultural communicative competence (Fantini, 2012) and the study of intercultural sensitivity (Nameni & Dowlatabadi, 2019), this theme has not been exhausted and takes completely new shades when considered in relation to FL teacher implementing a model of teaching a foreign language in the context of a polylogue of cultures. It is obvious that success of his/her work directly depends on the knowledge, general and professionally significant skills, competencies, which allow to model the educational process on the basis of competency-based approach and holistic systemic approach to education in the field of foreign languages and the culture of their native speakers.

# 3 Research Methodological Framework

The purpose of this study is a theoretical justification of the idea that teacher's possession of intercultural competence is a priority condition for effective implementation of the modern model of teaching a foreign language in the context of polylogue of cultures.

The following range of tasks was identified to achieve the chosen purpose:

- to reveal the basis underlying the professionalism of a foreign language teacher;
- to show the role of a foreign language teacher in shaping modern interculturally educated person;
- to characterize the phenomenon of "intercultural communicative competence" and demonstrate its impact on the professional activities of a foreign language teacher in the multilingual and multicultural world.

To solve the posed tasks, we used mostly theoretical research methods such as analysis, abstraction, comparison, synthesis, systematization of theoretical findings.

#### 4 Results and Discussion

# 4.1 Professionalism of a Foreign Language Teacher

It is known that professionalism of a foreign language teacher is a synthesis of a variety of personal qualities, social, special, psychological, pedagogical, linguodidactic and methodological competencies, which allow to effectively use the entire system of tools and resources in such activity areas as information and communication, social and labor, personal self-improvement, communicative, managerial, teaching, psychological and pedagogical.

So, in the information and communication field, it is important for the teacher to be able to independently search, analyze, select and methodically interpret the information necessary for the lesson and extracurricular activities from the textbook, using various sources for this purpose, including information and communication technologies. At the same time, he/she should be able to stimulate students in the preparation of projects, messages and other tasks to search for the necessary information in a foreign language by means of traditional and digital resources for this purpose, to provide them with assistance, if necessary.

In the social and labor field, the ability of a teacher to master the norms, methods and means of social interaction in the teaching staff and students, positively perceive pedagogical reality and criticism is recognized as significant. FL teacher is required to be able to work and interact with the teaching staff, to show empathy and tolerance towards colleagues, especially in conflict situations, to be initiative, active and independent in solving professional problems, while demonstrating interest and responsibility in teaching.

The sphere of personal self-improvement makes special demands on the teacher's ability to be aware of "I-image" of the teacher, his/her social and personal position in the perception of pedagogical reality and social role of the student's mentor, moderator, assistant, and technologist. It is important for him/her to be able to critically evaluate own development, actions, professional capabilities and improve them, exercise reflection and self-reflection of all types over his/her pedagogical activity.

In the field of communicative activity, the teacher needs to carry out adequate verbal communication, including the one in a foreign language, to hear and listen to communication partners, effectively communicate bearing in mind specific goals, including educational ones. It is also important to organize educational and authentic communication in the language being studied in the class, group or after school. In the field of management, the FL teacher should know how to plan and organize pedagogical activities, educational work in a foreign language, taking into account real educational environment and educational stage, interests, needs, abilities and opportunities of students, rationally combining the most effective forms and methods of their work with the educational content and organizing their creative, research and project activities within FL learning process.

In the field of teaching a foreign language (actually a methodological field), a teacher is required to design, conduct,

analyze and evaluate various types of modern lessons and extracurricular activities in a foreign language, examine and probably use all the components of teaching materials, including computer ones, prepare/select additional learning tools and interactive forms of students' work at the lesson, taking into account specific educational conditions and real capabilities of each of them, their language level.

And finally, psychological and pedagogical sphere. Here the teacher should be able to assess adequately the student's personality from the psychological and pedagogical position, to identify the features of educational and communicative-cognitive motivation, cognitive and linguistic abilities. Based on the knowledge in the field of psychology and pedagogy, FL teacher is required to practically organize the process of learning a foreign language by the student at school taking into account his/her individual characteristics, interests and needs.

At the same time, the ability to create a favorable psychological climate within the educational process, both in the classroom and outside it, facilitates foreign language communication of students and, at the same time, manifestation of individual capabilities by each of them. The teacher is urged to unite students using knowledge about the psychology of the collective, offering them personal, socially significant, interesting research, project and communicative activities in the language being studied.

# 4.2 The Role of a Foreign Language Teacher in the Formation of Interculturally Educated Person

As it was mentioned before, up-to-date linguo-ethno-sociocultural space of communicative coexistence of people poses a new challenge for the teacher, connected not only with the communicative development of students, but also with the enhancement of personal qualities and properties of the interculturally educated person able to:

- a) communicate, maintaining the national identity, including the studied non-native language(s) (at a certain level) as part of a dialogue/polylogue of cultures with the representatives of other linguistic cultures;
- to successfully fulfill the need for understanding other cultures of the multicultural educational environment when comprehending their mutual influence, searching for information, necessary for these purposes, and its interpretation.

Therefore, the main goal of the professional activity of the FL teacher in a modern multicultural school should be creating conditions for upbringing and development of each student as an ethical and interculturally competent person. It is possible to do only if a teacher is capable of:

- carrying out targeted multicultural development and upbringing of schoolchildren, introducing them to different linguistic cultures: the language and culture of the country of the studied language and own country, and, if necessary, other ethnic and regional cultures, etc.;
- creating favorable conditions for the spiritual and moral education and development of each schoolchild as an interculturally competent person by means of the taught discipline.

The basis of this ability is constructed by his/her personal qualities and properties such as: self-awareness and understanding (acceptance) of schoolchildren as multicultural subjects in their native environment with a multi-group affiliation (ethnic, social, religious, etc.), readiness for active action against linguistic and cultural aggression, cultural vandalism and cultural discrimination, as well as a positive, empathic attitude towards the student, the ability to empathize and be intellectually and emotionally involved.

Up-to-date FL teacher should be able to put himself/herself in the place of others, express empathy for the representatives of

other linguistic cultures. In general, it is important for him/her to be able to see the multicultural "landscape" of the surrounding social space and perceive the diversity of languages and cultures as the norm of human life in the modern multicultural world and multicultural educational space. FL teacher should be characterized by sociocultural observation (Sysoev, 2014) and openness, as well as the understanding that every culture and every language has a right to exist and can only be evaluated from the standpoint of own values and norms.

Herewith, the teacher should take the initiative in establishing and supporting intercultural contact in the context of the linguocultural polylogue. But most importantly, he/she must possess a professional level of foreign language acquisition in the situations of interpersonal and intercultural communication and the ability to create a favorable foreign language communication space in the educational process, stimulating students to master the language as a means of communication and its practical use, as well as to the cognition of the people's culture - its bearers and comprehension of the original culture.

# 4.3 Intercultural Communicative Competence as a Basis for the Professional Activity of a Foreign Language Teacher

Since the central place in the structure of the professional activity of a FL teacher is given to teaching, the following three groups of professionally significant skills are included into his/her intercultural competence: analytical, strategic planning and professional communication skills

The group of analytical skills is associated with the ability to carry out (self) observation, (self) analysis, (self) assessment of both educational environment and linguo-ethno-sociocultural communicative space of students' coexistence in a group/class/school, the type of their interaction with each other, the nature of their interaction with students, the ability to provide favorable conditions in the classroom for them to master the language and culture, increase their motivation, as well as socioethnocultural content of textbooks and other educational means, i.e. electronic, linguistic and speech materials in terms of their sociocultural load, similarities and differences of different cultures from the standpoint of their own knowledge and ideas about the mentality of their native linguo-ethnosocium.

The skills of (self) analysis are designed to allow the teacher to choose effective teaching and evaluative techniques and technologies, navigate in the virtual space for interaction with foreign and domestic colleagues and select the necessary information about the specifics of their linguosocium and characteristics of foreign cultures, predict the possibilities of their use in a specific educational, linguistic and cultural context, evaluate them from the point of the main provisions of multicultural language education, select a regional and national component in the content for teaching FL which is adequate to the aims and objectives of the lesson or event. In turn, the ability of FL teacher to evaluate various intercultural aspects in the activities of both colleagues and own ones, starting from preparing and constructing a lesson and ending with its conduct and the results obtained, is an important condition for the effectiveness of teaching.

The second group consists of strategic-planning skills, which include the ability to plan a system of lessons, develop a scenario for the individual lesson or event, and also design educational multi-purpose tasks and materials. From the point of multicultural linguistic education, the following skills occupy a special place in the system of strategic-planning skills:

- to go beyond the narrow geographic information about countries, peoples and their cultures and provide the conditions for students to perceive and understand the multicultural picture of the world around them (class/school, family, region, society) and their multicultural development;
- to reflect the multicultural aspect in the component composition of FL training content and the content of each specific lesson or extracurricular activity.

So, the skills of the second group presuppose not only a professional, but also largely creative aspect in the teacher's activity, since when planning his/her training activities it is important to take into account national, regional, linguistic and cultural specifics of the teaching material, correlate it with the nature and characteristics of the study group etc.

The third group of skills - professional communication skills - provides the implementation of various components of the lesson/event. These skills include information and explanatory skills, verbal communication skills and organization of interaction, including intercultural skills, in the system "teacher-student" and "student-group" systems, and assessment and correctional skills. Altogether, they provide verbal communication and interaction of the teacher with students and the study group within the educational process, i.e. the so-called verbal pedagogical communication.

It is based on the interconnected listening skills (to listen and hear the student), as well as speaking and writing (to carry out educational foreign language speech activity) skills. So, for example, in the field of listening - this is the ability to identify subtle intercultural differences in a sounding speech, to determine the linguocultural degree of audio texts` difficulty. And in the field of reading and listening - the ability to identify culturally significant information in a text, to understand contextually determined foreign cultural information.

With regard to speaking, the ability to perform oral speech activities in accordance with the cultural norms of a particular linguosocium, explain culturally significant similarities (if any) and differences in the use of words and linguistic models in the native and studied languages to students, create educational and speech situation that motivate communication in a multicultural group have a great significance.

And, finally, written language, the possession of which requires the teacher to be able to give examples illustrating subtle intercultural differences between the words and concepts of the mother tongue and the language being studied, correct inaccuracies of stylistic and cultural nature. In turn, assessment and correctional skills are associated with the identification of language and speech errors, violation of cultural norms, assessment and correction of the semantic side of students' speech.

The above-mentioned skills, along with others, constitute the backbone of the FL teacher's intercultural communicative competence, allowing him/her to successfully perceive the facts of culture, select them, interpret, evaluate and compare with the facts of his/her native culture, reveal the meanings of the concepts and speech and non-speech actions in the situation of intercultural communication, dynamically act in the intercultural situation using FL, realizing mediating skills of a mediator between one's own culture and the culture of a communication partner.

# **5 Conclusion**

Modern FL teacher must embody the "image of the intercultural person" capable of cultural self-determination and decision-making in the problematic situations of intercultural interaction, free choice of own life scenarios, sincere and open behavior in relation to oneself and others. But, besides that, the targeted and substantive aspects of multicultural language education and the features of modern multicultural educational environment, that were discussed above, introduce new aspects into the FL teacher's professional activity: he/she becomes a creator of the conditions for the development of the interculturally educated personality of a student in a multicultural school.

To this end, FL teacher must stimulate active cognitive activity of the student, influence not only the communicative, but also the cognitive and emotional-value spheres of his/her personality, and create the conditions for practical application of acquired knowledge, skills and abilities, realizing in what way and how

they can be used, including the situations of interpersonal and intercultural interaction.

In these conditions, schoolchildren should have a chance to work together, in cooperation, solving various personally significant problems within the framework of the dialogue/polylogue of linguistic cultures and having free access to the necessary cultural information in order to use it in their own statements and projects. In turn, the task of the FL teacher is to help schoolchildren in mastering their ways of learning the facts of another culture, comparing them with the facts of their native culture, interpreting them, and independently searching for regional and other information.

Thus, a FL school teacher ensures the development of interculturally educated student (within certain limits), using the entire arsenal of his/her professional skills and competencies. He/she initiates a situation of foreign language communication and interaction among students in a group, provides support to students in learning activities and in their development of the ways to study FL and facts from a different cultural background, creates the conditions for the cultural self-determination of each student in multicultural and multilingual real and virtual spaces.

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# **Primary Paper Section:** A

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# PEDAGOGICAL CASES IN FINAL ASSESSMENT OF FUTURE SPEECH-LANGUAGE THERAPISTS

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Abstract: This paper presents the experience with extrapolation of a case-based method to the sphere of special (defectologic) education. The specificity of pedagogical cases used as a monitoring and measuring tool for assessing student's readiness to perform job duties is revealed; the peculiarities are shown incidental to the cases' design and technological use as a diagnostic tool when establishing correspondence of the results of final assessment measuring the learning outcomes of students under the basic education program to the requirements prescribed by the Federal State Standards of Higher Education in the field of training Special (Defectologic) Education; the evidence is provided in support of the efficiency of the proposed diagnostic cases.

Keywords: speech-language therapists, case, professional competences, readiness, diagnostics, final assessment.

#### 1 Introduction

Dynamic changes occurring in all spheres of human life attribute special relevance to the task of modernizing the Russian pedagogical education: from the perspective of the Professional Standard for Teachers and the Federal State Standards of Higher Education (3+ / 3++), the competence-focused and practiceoriented approaches the use of innovative resources becomes of current interest to develop professional competences and assess the learning outcomes of future teachers capable of selfdevelopment, self-determination and self-education. The casebased method is recognized as of the significant interactive educational resources which has broad functionality and high effectiveness. To date, the theoretical postulates have been substantiated, the main objectives along with the content components and procedures of case-based method application in the educational process have been defined. There is a sufficient amount of studies and tutorials explaining its use as a teaching technology, including its specific application for developing professional competences. Researchers emphasize its high potential for different stages of educational process both for cultivating integrative qualities of a highly demanded specialist and for monitoring purposes to measure their level. However, it should be pointed out that though general coverage of the problem is rather comprehensive, the scientific evidence behind application of the case-based method in special (defectologic) education, in particular, in the context of professional training of speech-language therapists is fragmented: this topic is dealt with in a limited number of research works.

Today there is no single understanding with regard to the specifics of design process and application of teaching cases in the education of speech-language therapists. The researchers look for answers to such questions as what is the design process algorithm, what are the design process tools, what is the "case" as a result of design activity and as an educational product. The issues of its application in the indicated field of professional education, inter alia, as a diagnostic tool for the ongoing, intermediate and final monitoring of students' learning outcomes also remain unresolved. Therefore, development of theoretical and methodical underpinnings for extrapolation of the case-based method to the field of special (defectologic) education, and in particular, to the context of professional training of speech-language therapists may be recognized as a research

direction in the high school pedagogical of high theoretical and practical value.

#### 2 Literature Review

At the current stage of the Russian society development, preparation of a practitioner-teacher ready to effectively solve professional problems and engage in creative thinking to transform reality is of paramount importance. The traditional paradigm featuring learning outcomes as "knowledge - abilities skills" has been transformed into a competence paradigm of students' achievements, which, in turn, entailed a change in the tools and technologies used in higher education. Introduction of pedagogical innovations in the competence-focused learning become possible due to the modular design principle, which consists in a clearly structured basic vocational education program, in application of practice-oriented and interactive formats of interaction between actors in the educational relations, in the functioning of a multi-position system of subjective relationships in the context of networking cooperation between educational institutions (Shukshina et al., 2018).

A new paradigm of higher pedagogical education has necessitated inevitable changes in the structure and process of final assessment of graduates: the measure of readiness for profession should be their competence, and the assessment tool should be an exam assignment of interdisciplinary practice-oriented nature to be implemented in the conditions of quasi-professional activity of the graduate (Chandra, 2016).

European researchers, adhering to the provisions of the Bologna Declaration, distinguish three key outcomes of education: academic quality, which implies not only excellence in the field of research, teaching and spread of knowledge, but also a contribution to personal development; ability of graduates to benefit from employment opportunities in the international labor market throughout their lives; mobility in all its expressions and contexts. All universities pursue these learning outcomes and find that the true issue of quality is not a conflict between educational goals and skills, but rather the development and implementation of adequate learning competences and didactics and, subsequently, their adequate assessment (The European Higher Education Area in 2018, 2018).

The assessment patterns for learning outcomes remain equally controversial within the American continent: researchers examine the history of assessment in terms of its objectives and implications, and suggest strategies to make assessment more beneficial (Schinske & Tanner, 2014). Latest reforms are aimed at developing the assessment framework as a useful organizational tool that facilitates mobility, communication and coordination (Schneider & Hutt, 2013).

The Russian academic community searches for innovative assessment resources that would ensure objective measurement within the state final assessment of the level of professional competences acquired by university graduates. The case-based method is recognized by some scholars as such assessment resource which during a state exam may help to create conditions simulating a problematic situation as may be encountered by a graduate in the future professional activity and that needs to be resolved (Chandra, 2016).

Without entering into "terminological" debates, below we provide an overview of the generally accepted understanding of the case-based method and its application in professional education. The method is meant to create the necessary conditions to plunge students into the pluralistic problem from certain academic disciplines which involves the use of various cognitive strategies and has multiple possible solutions. Its intended purpose is not to pass down "the ready knowledge and practical skill" but to develop those in the creative process and collaboration on the terms of equality between all actors in the

educational process. It is also believed that it fosters development of a system of personal values and professional worldview and gives impetus to the world transformation.

In English speaking countries, the case studies (the case-based method) became rather popular among university teachers by virtue of the broad functionality (Murray-Nseula, 2011; Yalcinkaya et al., 2012). Teaching of academic disciplines based on certain cases is believed to be an effective means to improve students' performance and ignite their interest in the subject area (Bonney, 2015). Case studies (case-based method) are regarded as the preferred method for teaching different concepts in academic courses (Bonney, 2015). The case-based method (teaching based on a certain case) is characterized as an easily adjustable teaching style that includes problem-based learning and promotes the development of students' analytical skills (Herreid et al., 2011). Presenting content as a narration accompanied by questions and tasks that facilitate group discussion and resolution of complex problems, cases optimize the development of cognitive processes and ensure transition from sheer memorization and reproduction of the memorized material to problem solving which requires revision of the available knowledge, creation of its new combinations with preexamined ideas and modes of action, including creation of the innovative ones (Herreid, 1994). The case-based method helps to discover interdisciplinary connections and provides the foundations for establishing relevance of specific academic topics to real social problems (Herreid, 1994; Bonney, 2015). The case-based method boosts the motivation of students for learning and, consequently, improves the effectiveness of assessment (Yadav et al., 2007; Murray-Nseula, 2011).

Over the recent years, the growing interest in the case-based method has been witnessed attributable, on the one hand, to the evidence of its effectiveness as a didactic and diagnostic tool for changing the procedural knowledge of students in practice, including its potential for the development of competences and scientific thinking; and on the other hand, to the opportunities it holds given the active implementation of e-learning formats (Fisher et al., 2019; Turk et al., 2019; Wadowski et al., 2019).

This trend is also observed in the training of speech-language therapists. Students in speech-language therapy often find it difficult to apply their theoretical "book knowledge", or, in other words, to demonstrate competence within a clinical context. The real world of their future profession may be depicted during theory lessons through examination of authentic cases from practice. Cases are very useful for illustrating communication disorders. The indicated process is also spurred by the introduced requirement of the evidence-based practice in the field of speech-language pathology under which all speech-language therapists must be certified as clinically competent (Nail-Chiwetalu & Bernstein Ratner, 2007; Hill et al., 2012; Powell, 2018; Oosthuizen, 2019).

The extensive use of cases in various educational spheres determined the emergence of their many classifications, but none of the existing classifications reveals full information about the type-specific features of cases (Khadzhikurbanova, 2013; NCCST, 2016). The models for comparing the effectiveness of different methods of case studies are also proposed (Herreid et al., 2011).

Russian researchers point out that due to their wide functional range, cases may be used at different stages of the learning process: presentation of new material, its consolidation and control. Application of the case-based method as a diagnostic resource is considered at the stage of ongoing, intermediate and final control of the learning outcomes achieved by students. Scientists believe that case diagnostics provides an opportunity: for students to fully demonstrate their practical skills on the basis of obtained knowledge; for teachers to objectively assess the level of students' professional competences and subsequently adjust the learning process under the educational program to each student (Lezhnina, 2008; Konova & Pollak, 2013; Tyagunova, 2013).

Scientific evidence behind application of the case-based method in special (defectologic) education, in particular, in the context of professional training of speech-language therapists, has begun to appear in the works of authors from CIS states in the recent decade. This method helps to address a whole range of problems: preparation of speech-language therapists for the analysis of real situations from practice and development of the algorithms for their solution along with identification of primary and secondary factors with appeal to own experience; development of the teamwork skills; development of pedagogical thinking with orientation towards awareness of multiple possible solutions to the majority of "speech-language" problems. As a type of practical learning activity, the case-based method offers the future speech-language therapists an opportunity to: refine, generalize and systematize interdisciplinary knowledge; acquire universal and specific professional competences (analytical, designing, constructive, organizational, communicative, social); develop pedagogical reflection and, on its basis, foster self-knowledge and selfimprovement (Bal, 2012; Chukhacheva, 2017; Lapina, 2019).

Thus, it may be stated that in the Russian system of higher professional education, the case-based method has taken its rightful place among interactive educational resources: its vast potential can be tapped at different stages of educational process at high school. Unfortunately, scientific evidence in support of the use of the case-based method in professional training of speech-language therapists is presented in a limited range of research works. The issues related to the use of the case-based method as a diagnostic tool for monitoring the learning outcomes of students continue to be urgent. In the available sources, no research works have been found that would present the integral process – a model for its use in professional training of speech-language therapists.

# 3 Research Methodological Framework

The research purpose was to extrapolate the case-based method to the sphere of special (defectologic) education, in particular, into the context of final assessment of learning outcomes of future speech-language therapists. For achieving the indicated purpose, the following objectives were defined and sequentially addressed: theoretical substantiation of the use of the case-based method as a diagnostic tool for final assessment, modification of tools for assessment of the level of professional competences of future speech-language therapists and their testing, consolidation of the obtained results and their discussion. The research was carried out with reliance on such methods as: theoretical analysis of scientific literature and pedagogical phenomena reflecting different aspects of the use of the case-based method in higher education; empirical - generalization, systematization and interpretation of pedagogical experience in this sphere (both authors' own experience and experience of the whole pedagogical community); pedagogical designing; praxiometry (analysis of solutions to diagnostic cases); comparative analysis and synthesis of empirical data reflecting the results of the final assessment of students seeking Bachelor's degree in the field of training Special (Defectologic) Education, with specialization in Speech-Language Therapy, and participation of Mordovian State Pedagogical Institute named after M.E. Evseviev in cooperation network of educational institutions as part of implementation of the federal targeted programs, projects and grants (with the Institute of Corrective Pedagogy of the Russian Academy of Education, Herzen Russian State Pedagogical University, Moscow State Pedagogical University, Kazan (Volga Region) Federal University, etc.).

# 4 Results and Discussion

# 4.1 Theoretical Substantiation of the Case-Based Method Use as a Diagnostic Tool for Final Assessment

Theoretical substantiation implies definition of the pedagogical case used as a diagnostic tool in professional training of speech-language therapists. According to I. V. Ulyanova (2016), a case offered for resolution at the comprehensive integrated final state

examination enables situational assessment of professional competences of a graduate who completed the Bachelor's degree program, as when elaborating solution to the case, the graduate demonstrates the mastery of theoretical knowledge and relevant experience, creative thinking, skills of analysis and synthesis, comparison, formulation of key alternatives, generalization, choice of solution, designing, and as a result the problem solution project is presented. L. V. Lezhnina (2008) describes the case as one of the useful means to assess graduate's readiness for professional activity against the requirements to qualification and substantiates her position by the fact that "successful solution to a problematic situation requires independent intellectual activity of a student based on integration of psychological and pedagogical knowledge acquired during the years of study, accumulated professional skills and experience". In the authors' opinion, diagnostic case represents a monitoring and measuring tool to assess readiness of a student who will become a future speech-language therapist, to solve professional problems, and therefore, to perform job duties within a certain range of activities. Its structure includes such components as: description of professional situation; a set of tasks of certain type which predetermine the solution algorithm and help to establish the level of representation competences; overall score reflecting the level of competence and the quality of learning achievements after completion of a professional training program.

# 4.2 Modification of Tools for Assessment of the Level of Professional Competences of Future Speech-Language Therapists and Their Testing

The modification process began with optimization of final assessment tools reflecting the learning outcomes after completion of the entire program of professional training. This logic is determined by the design algorithm recognized by the pedagogical community for constructing the basic educational programs of higher education based on the desired integral outcome. The diagnostic cases were developed based, on the one hand, on a multi-year experience of state final assessment of mural and extramural students of the Department of Psychology and Defectology who seek Speech-Language Therapy specialty (most organizational and content components of assessment procedure have been tested over a span of 10-15 years), on the other hand, on the experience gained through participation in testing of innovative projects within modernization of pedagogical education (Lavrentyeva & Zolotkova, 2015).

State final assessment is an inseparable part of the basic educational program of higher education, its goal is to establish correspondence of the learning outcomes of students under the Bachelor's program to the requirements prescribed by Federal State Standards of Higher Education (3+ / 3++) in the field of training Special (Defectologic) Education; and its objectives are: first, to analyze and assess the readiness of students to professional activities of a speech-language therapist in institutional conditions incidental to the education, health care and social protection systems; second, to decide on the conferring of/ impossibility to confer the qualification as specified in the list of specialties and fields of training in the system of higher education; to find ways and to determine prerequisites for improving educational process in the indicated field of training for the indicated specialty.

The conceptual key to designing the organizational and content component of state final assessment was the incorporation of requirements to the quality of education from three groups of consumers of the basic educational program of higher education – students, employers and social institutions, primarily represented by the state and the professional community.

The content of assessment means and the procedures to determine their validity are centered around accomplishing the goal of student's "correspondence" to the "competence model of a graduate" and find implementation under the pattern: job duties – job activities (skills+knowledge) – competences – learning outcomes. The professional competence, despite differences in research approaches and definitions, in general

terms may be characterized as readiness of a student to effectively resolve issues in the professional realm using the acquired knowledge, the developed abilities and skills, value attitudes, creative approach and personal responsibility.

Some researchers assert that the competences include such components as "readiness", "ability" and "conditions". Each of those may be subject to certain determinants impacting the development of professional competency of a student: the readiness to solve problems is assessed from the perspective of motivation, promptness and initiative; the ability demonstrated in solution of problems helps to reveal theoretical and practical levels of professional training; conditions of solution help to assess the novelty of the addressed problem, the degree of autonomy and potential in resource support of activities. The key criterion for determining the competence accentuation is seen as the dominant form of its manifestation in activity (Chuchalin et al., 2013). Therefore, it is reasonable to assess certain competences of students by how they solve problem situations, which we proceeded from when designing the content component of the state final assessment.

The accentuation of professional competences, among other things, is essential for students to find employment by demonstrating the level of their competence to employers. At the same time, the items under control and assessment are all the competences declared in the basic educational program. There is no need to prove the assertion that general cultural (universal) and general pedagogical competencies can be demonstrated only in a situation of professional activity (real or simulated) which requires the search for solutions to problems and the application of knowledge, combinations of ways towards the solution, and pedagogical creativity, in general. For this reason, the principal content of the final assessment relates to a specialty-focused module of the program, learning outcomes under which are of crucial importance for professional activity, which implies the implementation of technologies of individual and systematic speech-language support for people with disabilities in the field of special and inclusive education, as well as in the spheres of health care and social protection.

Should a need arise to monitor and assess a considerable amount of competences, "aggregated" competences become the item under control. The aggregation of competences within the graduate's competence model (no more than three) is implemented with due regard for the type of professional problems to be solved on the basis of this aggregation. In assessing the aggregated competencies, it is assumed that the levels of all competences in integration will correspond to the level of the aggregated competence (Danilov et al., 2014).

In the logic of aggregation, diagnostic cases for final assessment are compiled in two modules: "Speech-Language Diagnostics and Design of Individual Support Programs for People with Disabilities (Technology of Individual Speech Therapy Support)" and "Design and Implementation of Speech-Language Therapy Activities in the Context of Systematic Support for People with Disabilities (Technology of Systematic Support for Language Support)", taking into account the compatibility of students' competences assessed at the exam. A rather short case comparable to the psychological and pedagogical problem is used as an assessment material.

Below we explore in detail the specifics of a case from speechlanguage therapy. The case represents a situation from speech therapy practice, which simulates a professional problem, and is intended to check how well a student plans the sequence of professional actions and how fully implements these actions. And, naturally, effectiveness of the case is directly correlated with its design for addressing educational tasks.

It is reasonable to distinguish the following stages in designing a speech-language therapy case as a diagnostic tool:

 Formulation of the case purpose in the context of an "aggregated" competence measured at the final assessment definition of the professional problem;

- Choice of the type / types of professional activity, its subjects and objects;
- Presentation of a model of professional problem a schematic overview of the problem showing internal and external connections between its subjects and objects;
- Collection of relevant information in the institutional system for filling the model with specific factual materials - thus bringing it in line with reality;
- First draft of a case text;
- With reference to the professional standard, definition of job duties - job activities: skills + knowledge, the use of which will help to solve the proposed professional problem;
- Development of logically interconnected control tasks (possibly of varying complexity), imitating professional activity within a scope of the proposed problem;
- Development of criteria and indicators for assessing the case solution (including in relation to the components of the aggregate competence - indication of competences required by the Federal State Educational Standard, which are essential to perform a certain control task, and identification of their "realm of control" with regard to knowledge, skills and abilities of students);
- Testing in order to establish the diagnostic effectiveness of the case, adjustment of the content and presentation technology;
- Finalization of the case and methodological guidelines for its application.

# 4.3 Consolidation and Discussion of the Obtained Results

Peculiar features of the speech-language therapy case within the module "Speech-Language Diagnostics and Design of Individual Support Programs for People with Disabilities" relate to historical "attraction" of domestic logopedics to medical sciences, and to the roots of speech-language pathology with description of specific clinical cases. Professional tasks in this case are represented by the most neutral information - a form does not contain ready answers to the questions and does not limit the creative thinking of students thus making it possible to go beyond a standard algorithm of action of a speech-language therapist. A student may: assess the symptoms shown by a person with disabilities, identify individual-typological signs of a speech pathology, formulate a diagnostic hypothesis in the pedagogical conclusion and speech therapy diagnosis; then analyze the obtained results - determine effective and appropriate speech therapy technologies and on this basis offer an individual program of speech therapy support; carry out modeling and demonstrate professional actions necessary to solve a particular problem. The professional task conveyed in such a manner embraces two types of problem situations: theoretical and practical. Actions of a student to attend the needs of a virtual patient are equivalent to the actions of a speechlanguage therapist in real practice (Lavrentyeva & Ryabova, 2016).

Format specifics of a speech-language therapy case within the module "Design and Implementation of Speech-Language Therapy Activities in the Context of Systematic Support for People with Disabilities" is predetermined by the focus of this module on assessing students' capacity to organize and implement various speech therapy activities to render help not to a single individual bu to a particular "problematic" category in specific institutional conditions. Informative part of cases designed to this format is represented by as brief as possible description of typical work situations - just enough for introduction of students to the sphere of activity and identification of the category of people in need of speechlanguage therapy. When demonstrating solutions to such cases, a future speech therapist recommends the model of interaction between a specialist and the subjects within his/her professional scope with account of their individual features and social status; identifies standards and regulations governing the process and documentation; describes technological aspects of a solution to the professional problem; gives a pedagogical forecast (Lavrentyeva & Ryabova, 2016).

One of the trends in practice-oriented training at the level of higher education is introduction of WorldSkills technologies in the educational process. The demonstration exam under WorldSkills is a set of tasks and activities for participants to demonstrate their skills and abilities according to the specifications outlined in the competence standards. Demonstration tasks, on the one hand, offer material that will help students to show their personal and professional qualities to the fullest possible extent, and, on the other hand, to set a steppingstone for objective understanding of their "zone of actual development" and for adequate self-assessment with regard to the prospects for success in profession. The proposed speech therapy cases meet the above requirements of the WorldSkills standard in the context of a demonstration exam.

Readiness to solve professional problems or to carry out job duties is an effective (active) property of a personality, mobilization of forces for the correct application of acquired knowledge and skills, as well as practical experience, in various types of professional activity. The structure of the above indicated property of a personality may be represented by two basic integral components: the psychological component (personal and cognitive subcomponents) and the activity component (communicative and labour subcomponents). For this reason, an overall score for the case solution by future speech therapists in the process of final assessment is based on such criteria as: the level of general cultural development, first of all, intellectual abilities, skills of orientation and interaction in the space, speech skills and socio-cultural professional communication skills; strength of mindset for achievements and success in profession; readiness for the implementation of the main types of activities for solving professional tasks - level of skills for professional situation analysis, information structuring, rational choice of the way towards solution and necessary resources, reflection and correction. Its proposed format is a competence level assessment revealing the quality of learning achievements upon completion of the professional training

The analysis and consolidation of the results of final assessment of students seeking Bachelor's degree in the field of training Special (Defectologic) Education, with specialization in Speech-Language Therapy, the reports of the chairmen of the state examination commission, feedback from employers' representatives over the past three years allow to assert the higher objectivity of final assessment of the learning outcomes of the future speech-language therapists, and, serve as the evidence for the effectiveness of the pedagogical cases suggested as the monitoring and measuring tool to assess students' readiness for job duties within a certain range of professional activities.

And for summing up, we would like to highlight that participation in projects of pedagogical education modernization and, as a result, access to multi-mode resources of networking cooperation between educational organizations, help to expand the professional horizons of the academic teaching staff and gain the innovative experience in designing basic educational programs for higher education and their underlying resources, including designing and using diagnostic cases for assessing the quality of professional training of speech-language therapists. However, the roll out of this interactive resource is a vivid process of discussions, developments and testing. The issues of standardization of pedagogical cases as diagnostic tools remain particularly relevant. Nevertheless, as experience shows, the chosen approach is highly promising and correlates with the social order - with the goals of higher education.

# 5 Conclusion

The analysis of the information sources on the problem under examination and own experience in teaching prove the usefulness of pedagogical cases for the development and evaluation of the level of professional competency of future speech-language therapists. The materials presented in this paper are of high value as the authors were the first in their attempt to

extrapolate the case-based method to the sphere of special (defectologic) education, in particular, into the context of final assessment of learning outcomes of future speech-language therapists. Our research and development efforts helped to reveal the specificity of pedagogical cases used as a monitoring and measuring tool for assessing student's readiness to perform job duties within a certain range of professional activities; and to have a closer look at the peculiarities incidental to their design and technological use as a diagnostic tool when establishing correspondence of the results of final assessment measuring the learning outcomes of students under the basic education program to the requirements prescribed by Federal State Standards of Higher Education (3+ / 3++) in the field of training Special (Defectologic) Education. The virtue of the suggested diagnostic cases is that they make it possible to simulate a real organizational situation; create a motivating working environment conducive to the utilization by bachelors of their experience and professional potential, the demonstration of nonstandard approaches; enable the reflection and independent expert evaluation. Materials developed by the authors may be used in the teaching process in the field of training Special (icefectology) Education, with specialization in Speech-Language Theory, and within networking cooperation between educational organizations of different tiers.

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**Primary Paper Section:** A

Secondary Paper Section: AI, AM, AN

# EDUCATIONAL CONCERT AS AN ORGANIZATIONAL FORM OF MUSIC STUDENTS' TRAINING AT PEDAGOGICAL UNIVERSITY

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Abstract: This paper defines a term 'concert' and a term 'educational concert' as its independent type, which is incorporated into the training process and plays a dominant role in the attainment of its goals. In this paper, based on the theoretical and methodological substantiation, an educational concert is examined as the historically conditioned organizational form of training that has specific composition of role players, specific structure and content. Upon educational concert introduction in the training of music students at pedagogical university, the mentioned structural unit becomes a training tool and a subject of study by bachelors, which plays a systemic role in education. The described concept strengthens the professional orientation of music teachers and contributes to recognition of the applied value of our research.

Keywords: concert, music education, educational concert, performer, listener, teacher, organizer, music teacher.

#### 1 Introduction

Nowadays, the role and functions of pedagogical staff are drastically changing, the requirements placed upon them as the specialists who should combine high professionalism, adherence to moral and cultural values, and readiness to make a tangible contribution to the progressive development of Russian society in the contemporary world undergo qualitative transformations. This order is fulfilled within the system of professional training of teachers, including music teachers. Professional activity of music teachers that has a high social value is directed at musical and cultural development of a personality of a young person through the purposeful organization of various educational and musical activities of students raising the quality of their communication with music. The effectiveness of this process depends on a degree to which students excel in the musical activities and interactions that are of the highest demand in society, and the nomenclature and characteristics of which find reflection in the organizational forms of training. Broad perspectives in this context belong to the educational concert, which received theoretical development and was experimentally tested by the authors of this research.

Insufficient exploration of pedagogical potential of concert forms of training prompted the need to study this problem more exhaustively. This need was further augmented by the narrowness of musical education of students focusing on their training for public concert performances, against the prevalence of music listening trend in society and the capacity to instill interest in music and in concert forms with socialization effect by organizing students' training in the form of educational concerts. The multiplicity and variability of the elements of an educational concert makes it easily adjustable to a specific environment, and explains its potential to catalyze humanistic and activity approaches, and accelerate students' socialization. The introduction of an educational concert in the education as a tool of training and a subject of study by music teachers enhances the productivity of this process.

# 2 Literature Review

The authors' definition of a term 'educational concert' requires substantiation. Analysis of the body of literature shows that the publications that reveal the essence of the concert, and create a possibility to distinguish educational concert as an independent category, have served as a platform for such substantiation. These studies have emerged as musical-historical descriptions of concert in the society in Western Europe (Hanslick, 1869;

Hawkins, 1868; Bekker, 1916). With thematic focus remaining the same but elaborated further in subsequent publications (Dukov, 2003; Milligan, 1983; Pintus, 1977; Salmen, 1959; Schwab, 1971; Scott, 1938; Sonneck, 1907; Weber, 2003; et al.), the number of scientific spheres interested in concert exploration from different angles has gradually increased. For our research particularly valuable were the studies of the concert audience (Johnson, 1992; Kapustin, 1985; Love, 2004; Maitland, 2000; Thompson, 2002; etc.) and of a concert performer.

Publications devoted to the concert performer are the most numerous. These include descriptions of concerts by outstanding musicians (F. Chopin, F. Liszt, F. I. Chaliapin, E. Karuso, S. V. Rachmaninoff, etc.), interviews and correspondence with them, memories recorded by the performers themselves, etc. Domestic musical pedagogical practice and science have proven the necessity and productivity of using concert forms for music socialization in training music performers (Alekseev, 1978; Barenboim, 1974; Zhivov, 2018; etc.); in the sphere of general, specialized and musical and pedagogical education (Archazhnikova, 1984; Bortnikova, 2011; Kabalevsky et al., 2006; Mariupolskaya, 2017; Osenneva, 2014; Stulova, 2013; Ukolova, 2018; Tsypin, 2001; et al.). The authors explore the concert aimed at solving the problems of music education in general education and vocational schools; address a wide range of issues related to organization of music and concert performances of students as a mandatory task that is accomplished in concert forms of training. This is evidenced by the analysis of state regulatory documents, such as the state educational standards for the training of music performers and music teachers, as well as delivery of general and further music education, which is reflected in the training programs for the relevant disciplines. This may be exemplified by the requirement, proposed by D. B. Kabalevsky (Kabalevsky et al., 2006), to include a final lesson-concert in the training process at secondary schools, which was later entrenched in training programs for music.

Literature analysis has shown the axiomatic productivity of educational music concert and its structural units in the training process. However, in the studies the concert has not been considered as an organizational form of training - an educational concert with its peculiarities. Thorough examination of these elective aspects will allow to expand their pedagogical potential and will be of high value for the training of music students at a pedagogical university, which is highly relevant, since this problem has not been yet examined in a systematic manner. Review of the works describing the experience in the use of innovative teaching techniques in these conditions (Arkhipova et al., 2018; Buyanova & Kudryashova, 2018; Kuznetsova & Yankina, 2018; Shigaev et al., 2017; Shukshina & Kasko, 2019; Zetkina et al., 2018; Vardanyan et al., 2018) and nonconventional application of music (Kobozeva et al., 2015; Lazutova & Falileev, 2017; Parshina & Karpushina, 2019; et al.) has contributed to the indicated purpose.

# ${\bf 3}\ Research\ Methodological\ Framework}$

The research purpose: to explore the educational concert as an organizational form of training and to look into the particular aspects of its application in the training of music students at a pedagogical university. Research objectives: comprehend the existing descriptions of the concert in order to define the educational concert; identify its key parameters and particular aspects of its application in the training of music teachers at a pedagogical university, experimentally verify the effectiveness of educational concerts in the current conditions.

The research was based on theoretical methods (analysis of scientific literature, comparison, systematization of material on substantiation of the educational concert and its use in music education) and empirical methods (pedagogical experiment,

questionnaire survey to assess how effective educational concerts are in the training of music teachers).

The experiment lasted from 2012 until 2019. Mordovian State Pedagogical Institute named after M. E. Evseviev served as an experimental base for the research. In total 112 bachelors in the field of training Pedagogical Education took part in the experiment.

#### 4 Results and Discussion

# 4.1 Preconditions for Emergence of the Educational Concert

Studies indicate that the rituals of ancient people included elements of concert, and it has acquired the recognizable form long before the date referred to as its birthday in many scientific sources and counted from publication of a newspaper ad about the commercial concerts organized by a musician J. Banister in London Gazette N 742 in 1672 (Hawkins, 1868). After the first attempts to define it, such as a definition offered in 1756 in the trilingual handbook of J.-F. Ferraud (Ferraud & Dyche 756), the concert exploration has been continued by contemporary scientists, in particular, the concert phenomenon was comprehensively scrutinized by E. V. Dukov (2003). The concert as a complex phenomenon that continues to change today, has received many interpretations not only by different sciences. Thus, general characteristics described in the reference encyclopedic handbooks are not consistent with the presented fundamental aspects of this concept, and the more holistic approach leads to a departure from the lapidary genre, which is observed in the paper by J. Chailley (2020), in French Encyclopædia Universalis. Analysis of the definitions shows that some of the specified characteristics are now optional or may undergo changes. These include a specially equipped room, a pre-declared program, payment for attendance, direct interaction with participants, and others. These criteria leave out media and outdoor concerts, sponsorship performances, jam sessions, audio and video recordings of performances, etc. Drawing from the above, musical concert is a socio-historical form of organized musical life of society, which enables artistic communication between its participants through public performance by various casts of performers and public perception of certain pieces of music included in a concert program.

The income-yielding potential of a concert has not only ensured its strong foothold in the society, but has also led to the emergence of such a profession as a performer, and this required training, which gave impetus to the opening of conservatories and other music education institutions. Therefore, such training should be oriented towards developing the skills of a concertist and should incorporate the appropriate organizational forms. However, in music education intended not only for music concertists, concerts (concert elements) are always present, because music as a kind of art serves its purpose only when music compositions are publicly performed, and a concert creates conditions favorable for the development of necessary skills. That's why concerts are widely used in music education and are fully subordinated to the goals of the training process; getting incorporated in this process as a structural unit, the concert helps to re-arrange its functions in line with the dominant learning objectives (developing, educational, training, etc.). Conclusion: a concert, when used in training, changes its functional priorities, and in this connection preserves its core parameters, but undergoes modifications in order to adjust to the new implementation conditions, which allows to single out this organizational form as an independent type of concert - an educational concert.

# **4.2** Organizational and Content Aspect of the 'Educational Concert' Concept

Incorporation of education concert in a training process changes its content and organizational components. Reorientation of its functions confers the didactic goal a leading role and transforms its realization, which is made possible through fulfillment of the interrelated goals pursued by role participants of the educational concert: performer, listener, organizer, teacher. In philharmonic concerts, tutors are rarely seen and only in relation to the performers.

Throughout educational process, the pool of students usually remains the same and students can participate in educational concerts. This makes it possible to prepare students for participation in the educational concert in a certain role, and, after performing this role, to use the experience gained for further improvement. (This interaction is impossible or extremely difficult in philharmonic concerts.) In this case, educational performance becomes a mobilizing center, aggregating the stages of its preparation, realization and consolidation of the outcomes, assigning a specific goal to each segment, which sequence corresponds to the logics of its unfolding. The attainment of specific goals of ultimate stages represents an integration of all incorporated lessons.

The aforementioned helps to reveal particular features of educational concert as an organizational form of training developed in pedagogy: specific didactic focus, spatial and temporal indicators, composition of participants, their actions (types, sequence, and degree of independence). interpretation highlights the capacity of educational concert to educate its participants. Therefore, the music to be socialized should first become a piece of art, and when this is achieved, acquire the status of a tool for learning or peer learning for the students, thus enhancing the process interactivity (Chinyakova, 2014). Subject to fulfillment of these conditions, the educational concert contributes to digestion of actions and interactions of a training purpose, which is the highest level in the hierarchy of educational and musical activity (Kobozeva et al., 2015). It also provides concurrent developmental opportunities to students from different role groups and facilitates their communication in the learning sense. With such an approach to the organization of learning its cost-effectiveness improves (a large number of students may be trained at the same time), humanization (respect of individual abilities through differentiation of tasks for role participants), the complexity of a poly-role development of students through the performance of the required roles in a sequence of educational concerts, which we call an educational concert training. Its effective implementation is facilitated by a high variability of many components of educational concert, which leads to its high adaptability and capacity to meet the specific educational conditions. The classification system developed by the authors of this paper makes it easier to choose an appropriate type of educational concert (Chinyakova, 2013).

The above mentioned reveals the essence of educational concert organization and prospects of its application in the music education at any level of training and for any specialization. Its application in training of future music teachers, for whom it is a training tool and a subject of study, is especially relevant.

# 4.3 Experimental Verification of Effectiveness of Educational Concerts in the Training of Music Students at Pedagogical University

The experimental verification of productivity of educational concerts in the training of music students was based on the structural design of their music performance training and methodical training, with the use of educational concerts to encourage professionally significant practice-oriented actions and interactions of bachelors. The experiment was carried out on the basis of the Federal State Budgetary Educational Institution of Higher Education "Mordovian State Pedagogical Institute named after M. E. Evseviev" for the entire duration of training of 112 bachelors admitted in the years from 2012 to 2014 of intramural and extramural forms of study, whose results were totaled up. The experimental group consisted of half of the students, who had initially planned to take the educational concert training within the discipline of their choice and who received experimental tasks. The remaining students were included in the control group.

The development of music skills, naturally occurring through a contact with it, in modern educational practice is focused on the

performance that is public in nature, which necessitates the use of educational concerts, mainly for control and monitoring purposes. Their attendance by students as listeners is usually not mandatory or, when students are in attendance, they do not receive any clearly articulated tasks. Since the most common type of contact with music in society is listening, and good listening abilities require training, as a part of music education they should be developed in a systemic way. For this purpose, it is to increase the nomenclature of educational concert types and expand their educational role orientation, adding a listener to a performer, and in the context of university under consideration, a teacher and an organizer.

In connection with the above, the objectives of the initial stage of our experiment were to assess the starting level of the educational concert skills of students and to add more diversity in the types of educational concerts, inter-disciplinary used in the training of music teachers, with full-fledged participation of students from the experimental group in their assigned roles. The next phase summarized the experience gained by bachelors and its enrichment within educational disciplines studying theory and practice of the use of educational concerts thus stimulating higher engagement and raising awareness of poly-role participation. At the final stage, students tested their skills with schoolchildren during pedagogical internship and during educational concerts organized through their own efforts, which underpinned the final assessment of the level of educational concert abilities of students.

For measuring how well students perform their roles in educational concerts the following criteria were used: psychological (positive orientation, emotional responsiveness, value estimating and creative attitude); cognitive (knowledge, strive for its replenishment and self-development); practical (level of performance and exhaustiveness of various types of role-based actions and interactions). The indicators for assessing the ability to educational concert activities according to the assigned role were the following levels: threshold (independence, correctness of the role-based actions in standard conditions); basic (independence, correctness of the role actions in typical and non-standard conditions) and high (creative approach, independence, correctness of the role actions in typical and non-standard conditions).

The results of the research measuring the quality of students' actions, and reflecting the level of effectiveness of educational concerts in the process of training are presented in Table 1.

Table 1 Results of the research of effectiveness of educational concerts in the training of music students at pedagogical university

	Contro	l group	Experimental group			
Levels	Start of	End of	Start of	End of		
	experiment	experiment	experiment	experiment		
High	14.4	21.6	14.4	43.2		
Basic	57.6	56,8	56,8	49.6		
Threshold	28.0	21.6	28.8	7.2		

Source: Compiled by the authors.

Table 1 indicates positive dynamics in the music students' level of training upon the use of educational concerts, which proves the value of the research.

# **5 Conclusion**

The educational concert is an organizational form of training that can effectively address music education tasks, at the same time increasing the process profitability through a comprehensive poly-role development of students, which accelerates their social adaptation. An educational concert has many different components, the typological system of which enhances its adaptability to the learning environment and optimizes the training process. The use of educational concerts helps to overcome persistent stereotypes of a mono-role performance orientation of music education.

In view of the productivity of educational concerts, in the process of music students training at pedagogical university,

they represent an effective tool of comprehensive role-based training and the subject of study, which has practical orientation and professional relevance.

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# **Primary Paper Section:** A

Secondary Paper Section: AL, AM

# MODEL FOR DEVELOPING ARTISTIC AND AESTHETIC COMPETENCE OF A FUTURE TEACHER

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Abstract: Due to the social demand from the public and the state for future teachers with a high level of artistic and aesthetic competence, the purpose of this paper is to create a model for developing this competence. The research objectives were accomplished with the help of such methods as analysis, synthesis, generalization and modeling. The key result is the created model for developing artistic and aesthetic competence of a future teacher, consisting of concept and goal, content and process and evaluation and result structural blocks. As a result, a conclusion was made that the model presented in this paper can be implemented in certain pedagogical conditions.

Keywords: future teacher, model, educational process, pedagogical conditions, artistic and aesthetic competence, concept and goal block, content and process block, evaluation and result block.

#### 1 Introduction

At the current stage of its development, the society needs teachers with a high aesthetic taste, an ability to perceive various artistic and aesthetic phenomena, the beauty in arts and the surrounding world, developed artistic and aesthetic skills, strong motivation to create the beauty, and readiness for creative activities (Kadakin et al., 2017; Vardanyan et al., 2018).

The developed artistic and aesthetic competence of a future teacher is one of the indicators of their preparedness, competitiveness and mobility in today's world (Arslan, 2014; Kenny et al., 2015; Bereczki & Kárpáti, 2018). In the modern educational paradigm, the requirements applied to a modern specialist undergo changes, which in turn requires a review of the design, content, forms and methods of professional training of a future teacher in the educational process of a university for developing their artistic and aesthetic competence (Kuyumcu, 2012; Orkibi, 2012; Mullet et al., 2016). The existing programs of teacher training based on the Federal State Standard of Higher Education - Bachelor's Degree in the field of training 44.03.01 Pedagogical Education (Order No. 121 dated February 22, 2018), as well as teaching practices, do not fully ensure the development of the aforementioned competence in future teachers (Shukshina et al., 2018). Implementation of an effective and logically structured process intended to develop the artistic and aesthetic competence of students at pedagogical university brings to light the issues related to the creation of a model for developing this competence.

# 2 Literature Review

The phenomenon of artistic and aesthetic competence is the target of research by Almukhambetov, B., Tanirbergenov, M., Nebessayeva, Z. (2015), L. R. Ishmakova (2016), L. A. Klykova (2009), L. M. Massol (2006), Y. A. Stewart (2012), S. A. Chernysheva (2014), N. V. Chechukova (2015), T. L. Chumakhidze (2016) and others. The proceedings of the above named researchers led us to understanding of the artistic and aesthetic competence of a future teacher as a combination of personality traits essential for the success of artistic and aesthetic activities, including artistic and aesthetic knowledge, skills, attitudes, artistic and aesthetic orientation and motivation, masterful use of artistic and aesthetic means, adequate perception of artistic and aesthetic situations, readiness for the artistic and aesthetic activities (Ryzhov, 2018).

A model for developing the artistic and aesthetic competence of a future teacher was created based on the model creation guidelines laid down by M. Vartofsky (1988) – covering only those qualities of the prototype, which are included in the scope of research, the initial foundations and sequence of steps to create a model (Shukshina et al., 2018), and by A. Ya. Saveliev (Saveliev et al., 2005) - definition of goals and specific tasks of modeling, reliability and completeness of input data, identification of key conditions that have the biggest impact on the trends and patterns of study targeting certain object or phenomenon.

We consider the model for developing artistic and aesthetic competence of a future teacher in the educational process at university as a kind of equivalent of the activity of a trainer and future teachers meant to address common problems associated with the development of artistic and aesthetic competence of a future teacher in the educational process at university (Shukshina et al., 2018). The model defines the logic in shaping the artistic and aesthetic competence of a future teacher in the educational process at university, reflects the main properties of the components, interrelations between them that are inherent in this process and essential to achieve the goal. The model combines the goals, content and expected result of the efforts to develop artistic and aesthetic competence of a future teacher through the educational process at university (Aryabkina, 2015).

# 3 Research Methodological Framework

The purpose of this paper is to create and describe the model for developing artistic and aesthetic competence of a future teacher in the educational process at university.

The main objectives of this research consist in creation of the model for developing artistic and aesthetic competence of a future teacher based on the modern approaches, such as: interdisciplinary, participatory, polyartistic, activity-competence, axiological; identification and description of the structural blocks that constitute the created model, i.e. the concept and goal, the content and process and the evaluation and result blocks. A special objective of the study is to reveal pedagogical conditions conducive to the efficient functioning of the model for developing artistic and aesthetic competence of a future teacher.

In order to accomplish the research objectives, we have used such methods as analysis, synthesis, generalization and modeling.

# 4 Results and Discussion

The analysis of scientific literature, as well as our own research experience allowed us to distinguish in the model for developing the artistic and aesthetic competence of a future teacher in the educational process at university such structural blocks as the concept and goal, the content and process and the evaluation and result blocks. Let's consider these blocks in more details in a context of our research.

According to the professional standard of a teacher, Federal State Standard of Higher Education - Bachelor's Degree in the field of training 44.03.01 Pedagogical Education (Order N 121 dd February, 22, 2018), the *concept-target block* reflects the social demand from the state and the public for development of artistic and aesthetic competence of a future teacher. This block represents a substantial core of the model, is determined by the pursued goal and has a meaning resonating with all other blocks. In the course of the research it is important to achieve the pursued goal and the predicted result expressed in the desired level of artistic and aesthetic competence of a future teacher developed through the educational process at university. In order to accomplish this goal, the following tasks need to be solved:

 Contribute to the development in the pedagogical university students of aesthetic attitude to the world, dedication for aesthetic transformation of the surrounding space;

- Develop an aesthetic orientation based on knowledge and sensual experience; readiness for artistic and creative endeavors; readiness for aesthetic evaluation of the works of art; motivation for creative artistic and aesthetic activities and creative growth of pedagogical university students;
- Shape artistic and aesthetic knowledge, skills and experience, artistic and aesthetic taste, an ability and willingness to develop the artistic and aesthetic taste of future students; a general ability to perceive, understand and interpret the works of art, to understand the language of art;
- Develop the readiness to perform artistic and aesthetic activities in certain professional (problem-based) situations.

Based on the findings of researchers, in order to achieve the goal, the most productive approaches seem to be interdisciplinary - in the context of this research it is expressed in the processes and procedures of schematization of a study target in different thematic projections; participatory - it is focused on interaction between the teacher and students to develop and implement a joint solution to any problem associated with the development of artistic and aesthetic competence, which is of the subject-to-subject type; polyartistic – promotes the detection of internal kinship between different types of art, the discovery of figurative links between word, sound, color, movement, intonation, rhythm, gesture, space, form; activity-competence - focuses on the result of education, which is understood as the student's ability to understand, formulate and solve artistic and aesthetic tasks arising in the process of learning; axiological - allows to prove that the artistic and aesthetic competence of a future teacher is determined by the value content of individual consciousness, is characterized by its specific focus on the development of value orientations of a future teacher, determines the content of artistic and aesthetic education of students.

The aforesaid methodological approaches constitute the foundation for research of a problem of developing the artistic and aesthetic competence of a future teacher in the educational process at university as they solve tasks of the theoretical-methodological, profile-oriented and practice-oriented nature (Najn, 1995).

Under the principle we understand a guideline, a basic rule, predisposition for any activity. We believe that when developing the artistic and aesthetic competence of a future teacher in the educational process at university, it is important to take into account general (integrity, scientificity, continuity, cultural expediency) and specific (multiculturalism, subjectivity, empathy, communicative partnership and cooperation in the study group) principles.

Concept and goal block predetermines creation of a *content and process block* for developing the artistic and aesthetic competence of a future teacher in the educational process at university. This block is systemically important in the model under consideration as through its evolvement, the process and result of the process directed at the development of artistic and aesthetic competence of a future teacher in the educational process at university become clearer defined. This block reflects the *theoretical and practical* training of students, and includes the following components of artistic and aesthetic competence of a future teacher: *value-based, motivational, cognitional, activity-related* (Ryzhov, 2018).

This block of the model is also dealing with justification of the stages of development of the artistic and aesthetic competence of a future teacher, with definition and use of appropriate forms and methods of training in their dialectical unity, as well as with the identification of pedagogical conditions conducive to the development of the artistic and aesthetic competence of a future teacher.

Consistency and step-by-step approach in the organization and implementation of the educational process at university ensures the effective development of the artistic and aesthetic competence of a future teacher. Based on the study of this problem we have identified the following stages necessary for

organizing the process of development of the artistic and aesthetic competence of a future teacher in the educational process at university: motivational and value-based, informational-cognitive, activity-practical, final-corrective.

The most important component of the examined block of this model are the pedagogical conditions that act as a necessary component of the process directed at the development of the artistic and aesthetic competence of a future teacher in the educational process at university, and need to be considered when designing an educational process at pedagogical university.

For effective development of the artistic and aesthetic competence of a future teacher, it is necessary to identify and create certain pedagogical conditions. In this research, the pedagogical conditions for the development of artistic and aesthetic competence of a future teacher in the educational process at university is understood as a combination of interrelated circumstances of educational relationships, which allow to effectively develop the artistic and aesthetic competence of a future teacher (Zvereva, 1987; Kupriyanov & Dynina, 2001; Shukshina et al., 2018).

On the basis of the above position we have identified the following pedagogical conditions conducive to the development of artistic and aesthetic competence of a future teacher in the educational process at university:

- Unleashing the artistic and aesthetic potential of a number of socio-humanitarian disciplines included in the basic part of the curriculum (Pedagogics, Philosophy, History, Russian Language and Speech Culture, Foreign Language (English), Physical Culture and Sport, Life Safety);
- Incorporation into the educational process of a supplementary general educational program "Artistic and Aesthetic Competence of a Future Teacher";
- Use of a set of practice-oriented assignments of artistic and aesthetic nature for future teachers during their pedagogical internship.

The evaluation and result block is highly important for the model for developing artistic and aesthetic competence of a future teacher in the educational process at university.

When elaborating this block, the criteria and diagnostic materials needed to monitor the development dynamics of the artistic and aesthetic competence of a future teacher in the educational process at university have been selected. In order to accomplish the defined tasks, based on the identified components of training, the main criteria (value- and substance-based, gnoseological, operational and activity-based, reflexive and evaluative) and development indicators of the artistic and aesthetic competence of a future teacher in the educational process at university have been distinguished, which serve as representation of the features peculiar to the components of the artistic and aesthetic competence of a future teacher, as well as levels (high, medium, low) of the artistic and aesthetic competence of the future teacher

The created model is characterized by openness, flexibility and practice orientation. The openness is expressed in the model availability in terms of its contents and organization of the process directed at the development of artistic and aesthetic competence of a future teacher in the educational process at the university and at the same time ease in use, perception and assimilation. The flexibility lies in a possibility to reconstruct the process of developing the artistic and aesthetic competence of a future teacher in accordance with the changed circumstances of the process, but at the same time it is possible to control the effectiveness and achieved level of the competence at each stage of activity of a teacher and students at pedagogical university. Practice orientation of the model means its practical purpose and orientation towards its application for the developing the artistic and aesthetic competence of a future teacher.

The presented model for developing the artistic and aesthetic competence of a future teacher in the educational process at university illustrates that preparation for the educational and training activity is a complex multistage structure, functioning in accordance with the goals, principles, approaches.

One noteworthy outcome of this activity is the achievement of the highest possible level of artistic and aesthetic competence of a future teacher in the educational process at university.

Thus, development of artistic and aesthetic competence of a future teacher in the educational process at university is considered as a process directed at creating in the educational activity of the pedagogical conditions conducive to the development of artistic and aesthetic competence of a future teacher, which is dynamic and includes motivational and value, informational and cognitive, activity-practical, final and corrective stages, united by the goal of achievement by students of the highest possible level of artistic and aesthetic competence.

#### 5 Conclusion

Thus, developed on the basis of modern approaches, including interdisciplinary, participatory, polyartistic, activity-competence, axiological approach, the model for developing artistic and aesthetic competence of a future teacher in the educational process at university contains a totality of the concept and goal, the content and process and the evaluation and result blocks and their components, namely: purpose, principles, content, forms, methods of its development. This model is open, flexible and practice-oriented, and its functioning is based on the general (science, integrity, continuity, cultural expediency) and specific (multiculturalism, subjectivity, empathy, communicative partnership and cooperation in the study group) principles. For effective functioning of the model for developing artistic and aesthetic competence of a future teacher in the educational process at university the following pedagogical conditions should be created: unleashing the artistic and aesthetic potential of a number of socio-humanitarian disciplines included in the basic part of the curriculum; development and incorporation into the educational process of the supplementary general educational program Artistic and Aesthetic Competence of a Future Teacher; development and use of a set of artistic and aesthetic assignments for students doing pedagogical internship at school.

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# Primary Paper Section: A

Secondary Paper Section: AM, AN

# OLYMPIAD AS A MEANS FOR FOSTERING THE READINESS OF STUDENTS TO FOLLOW THEIR TRAJECTORIES OF PROFESSIONAL GROWTH

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Abstract: This paper describes the experience of organizing professional olympiads for pedagogical university students directed at the development of their ability to build an individual trajectory of professional growth as a subject teacher. The assessment tools for student olympiads on Chemistry Teaching Methods and Biology Teaching Methods have been described. The teaching and methodical materials are intended to develop professional competencies as envisaged by the educational program consistent with the job functions of a teacher laid down in the Professional Standard for Teachers and requirements and assessment criteria for the General and Secondary School Teacher competence. The definition of the term "olympiad on subject-specific methods" and the key characteristics of the olympiad on subject-specific methods have been formulated.

Keywords: higher education, pedagogical education, quality of vocational education, professional competences, student olympiad, olympiads on subject-specific methods, biological education, chemical education.

# 1 Introduction

When all spheres of life in our country are rapidly gaining momentum, the most significant projects in the field of general education are geared towards the improvement of the staffing mechanisms for the industry as one of the major factors having impact on the quality of training at school. It is important to teach students to overcome the sociocultural challenges related to the general education from the perspective of contemporary realities. They are primarily related to the acquisition of fundamental knowledge of general purpose, rational methods and technologies of teaching and cognition, strategies and tactics of behavior based on the spiritual and moral orientations, values of labour, science and art, ways to preserve health and cultivate the healthy life style. That's why the requirements for professional readiness of a teacher come to the forefront, especially as concerns comprehension by a teacher of the content of modern education, innovative tools for teaching, educating and developing students to ensure achievement of formal, nonformal and informal goals of education. In the current situation, a teacher should be constantly seeking and using the ways for independent management of pedagogical career upon determination of a trajectory of their own professional growth, realistic and achievable goals, and transfer of the acquired skills to other environments both within and outside an educational

As is known, in 2019 our country launched the national project "Education. One of its priority objectives is to produce documents of national importance requiring the constant professional growth of pedagogical staff members. In connection therewith, by the end of 2020 the National Teacher Growth System (NTGS) should be implemented, which is based on the innovative form of teacher certification using the Unified Federal Assessment Materials (UFAM). This form implies assignment of new qualification categories corresponding to the educational sphere of teacher's work. Taking into account the complexity and omnidirectional nature of teaching, an objective need arises to modernize vocational pedagogical education already within the walls of a pedagogical university. The study of various disciplines included in the curriculum, with a particular attention to pedagogy, psychology and subject-specific methods, as well as the organization and conduction of professional focus events of non-formal content for students may help to purposefully foster their readiness for building a trajectory of professional growth and performing professional activities in the ever-changing socio-cultural environment. One of the recognized ways to foster the indicated aspects of future teachers' readiness already within the walls of a pedagogical university is the opportunity for students to gain experience of participation in subject-specific and profession-related olympiads.

# 2 Literature Review

The modern society and the renovated educational space in our country impose high standards on the preparation of pedagogical staff. Qualification of the other level may be ensured contingent upon the permanent control over all components and procedures of vocational training of future teachers. The control should be mainly directed towards revealing the quality of developed professional competences. The Federal State Standard of Higher Education (FSSHE) 44.03.05 Pedagogical Education requires that such competence as "readiness to build trajectories of own professional growth and personal development" be mandatorily developed. The experience of many higher education institutions shows that one of the effective ways to develop this competence and assess its level among students is the holding of subjectspecific and profession-related olympiads. The same conclusion can be drawn upon review of the publications of Russian scholars in the field of higher education. Thus, in the publications of V. I. Balabanov, V. Yu. Boykov, N. A. Vyskrebentsev (2009) the emphasis is made on the approaches and ways to develop the methods of organizing and holding the subject-specific olympiads. The materials prepared by G. Ya. Grevtseva (2015), N. A. Savinova, T. A. Shukshina (2013), and I. V. Gladkaya (2011) reveal the role of subjectspecific olympiad in the professional evolvement of specialists trained at universities of various specialization, including pedagogical universities. The issues related to elucidation of such concepts as "the olympiad" and "the olympiad movement" are addressed in the works of E. A. Maksimova, N. N. Patronova (2016), A. I. Popov, G. I. Dubrovina (2016). The same papers give a general overview of the olympiad movement in our country. The olympiad from the angle of complex assessment of the quality of vocational pedagogical education is considered in the works of S. V. Arkhipova, A. N. Gamayunova, M. A. Lavrentyeva, N. G. Minaeva, N. V Ryabova (2017, 2018). I. B. Buyanova and S. K. Kudryashova (2018) in their studies argue that student participation in the pedagogical olympiad contributes to the success of a future teacher in profession. In the work of G. Kh. Vakhitova (2012), the pedagogical olympiad is viewed as a factor underlying the development of professional competencies of pedagogical university students. In addition, while analyzing the problem of search for new methodological approaches, concepts, technologies for vocational development of specialists, the author highlights the necessity to encourage students to participate in subject-specific olympiads, and also considers the peculiarities of mentoring in the olympiad movement (Vakhitova, 2019). Describing the experience of organizing the pedagogical olympiad, G. A. Karakhanova and E.E. Orudzhalieva (2017) come to a conclusion that the pedagogical olympiad is an effective form of teaching, which boosts students' motivation for learning and strengthens their interest in the subjects of the psychological and pedagogical cycle. Unfortunately, in the research into and coverage of the topic of student olympiads, the olympiads on proprietary teaching methods remain out of sight. Besides, olympiads in such disciplines are conducted most often within universities and rarely at the interregional level. Meanwhile, the content and assessment tools of these very olympiads are in many ways oriented towards the check of the readiness of pedagogical university graduates for professional activity in the conditions of the upcoming introduction of the new teacher certification

# 3 Research Methodological Framework

The research purpose was: to draw attention of the teaching community to the relevance of olympiads on subject-specific methods held at universities training pedagogical staff for the initial involvement of students in the forthcoming professional activity as a subject teacher; to present the unique experience of organizing and conducting olympiads on the chemistry and biology teaching methods in the conditions of a particular pedagogical university.

The research objectives were as follows:

- Theoretical: analysis of the relevant literature, comprehension of the educational process in own and other universities from the point of view of the practice-oriented approach to the vocational training of future teachers (including teachers of chemistry and biology);
- Applied: development of scientific and methodological materials, their testing in the educational process at university.

The results of experimental research were obtained using certain methods of theoretical and empirical levels. The methods of theoretical level were used to analyze the pedagogical and methodical literature, to define the essence of the olympiad as a means to foster the students' readiness to follow the trajectory of professional growth, to generalize and systematize the materials obtained experimentally. The methods of empirical level included conversations with students followed by interpretation of their answers regarding the value of olympiads on subject-specific methods in terms of application of the acquired knowledge and skills in the forthcoming professional activity, and also definition of the elements of the professional growth trajectory.

### 4 Results and Discussion

# 4.1 Theoretical Stage

As noted above, the student olympiads today are the focus of attention of many researchers and practicing teachers. Thus far, the understanding of the concepts "olympiad" and "olympiad movement" has been established, the general content of student olympiads has been defined, and the elements of their methodological support have been identified and in certain aspects already implemented in educational practice. This allowed us to clarify the meaning of the concept "olympiad on subject-specific methods" and to describe characteristics of the olympiad in the mentioned field taking into account the university educational process designed to foster students' readiness to follow the trajectory of professional growth.
Relying on the definitions of the term "olympiad" formulated by O. Yu. Korsunova (2003), O. N. Makarova (2009, 2012), N. S. Kasatkina (2016) and G. Ya. Grevtseva (2015), we propose our definition of the term "olympiad on subject-specific methods". Olympiad on subject-specific methods is an organizational form of short term competition between students, which requires from its participants the demonstration of methodological, academic, methodical and technological knowledge and specific skills, value orientations, creativity, as well as professionally significant personal qualities essential to an effective implementation of scientific, methodological and educational activities with the use of external and internal resources when addressing the upcoming tasks within the context of development of the relevant competences in the direction of further professional growth.

Considering that the individual trajectory of a teacher's professional growth presupposes their commitment to expand the opportunities available within the educational space, to choose the most effective ways of teaching their subject, to enrich the content of various aspects of professional competence; based on the proposed definition, the key characteristics of the olympiad on subject-specific methods may be formulated. Such characteristics include:

- Demonstration of knowledge of methodological, academic, methodic and technological content, and its specifics in terms of relevant requirements for general education;
- Demonstration of understanding of educational needs of the modern students with account of their individual, group and collective distinctions;
- Demonstration of the top priority aspects of scientific, methodological and educational activities of a subject teacher in terms of addressing the urgent problems of general education school;
- Demonstration of flexibility and adequacy of response to changes in pedagogical, methodical and technological situations;
- Demonstration of professional and pedagogical interest and personal commitment to address the upcoming challenges.

On the basis of the above, it can be asserted that the student olympiad on subject-specific methods may spur individual needs and profession-oriented expectations, initial experience, level of university training, psychological and cognitive distinctive features of a future teacher. Indeed, on the threshold of their pedagogical career, a pedagogical university graduate gets an opportunity to express personal preferences concerning their specific needs in order to build their own individual educational trajectory while carrying out professional activities. As a result, this may make him/her highly demanded, or conversely, the acquired competences may turn out to be non-demanded in the labor market.

# 4.2 Applied Stage

For several years, at the Mordovian State Pedagogical Institute named after M.E. Evseviev (MSPI) under the educational program in the field of study Pedagogical Education, specialty Biology. Chemistry, the targeted efforts were made to encourage students to participate in the olympiads on chemistry and biology teaching methods. The main purpose pursued when organizing the olympiads is to identify the most gifted and talented students, improve the quality of professional training of students, improve their professional competence, unleash their creative potential through contest tasks, boost the motivation and creativity of teachers of graduate chairs in the performance of mentoring functions.

The programs of olympiads developed at the Department of Science and Technology are based on the understanding of the activity of a subject teacher as an ability to solve pedagogical tasks. When creating the variants of tasks, the peculiarities of the UFAM were mandatorily taken into account, which in the future will serve as a basis for a new system of teacher certification. As is known, three categories of tasks are supposed to be introduced, namely, a written paper on the academic discipline of teacher's specialization, watching a video lesson followed by an analysis of the work of students, and solving a psychological and pedagogical task or case. It should be noted that a written paper on the academic discipline will be intended to check the academic and methodical competencies. For example, a chemistry teacher should not only solve computing tasks and write equations of chemical reactions, but also answer questions concerning lesson design, lesson objectives, and logical expression of the content of learning aids on the topic under study.

Participants of the olympiads on the specific methods of two subjects referred to above are students of 3<sup>rd</sup> to 5<sup>th</sup> years of study of bachelor's degree course and 1<sup>st</sup> and 2<sup>nd</sup> years of study of master's degree course seeking Chemical and Biological Education specialties. Junior students are invited to participate in subject-specific olympiads, which are annually organized at the department on the fundamental disciplines included in the academic block of the educational program. Participation in the olympiads greatly contributes to fostering the students' readiness for competitions and olympiads of a higher level.

The practice of organizing olympiads on subject-specific teaching methods shows that the best way is to structure the

olympiad in three stages - theoretical, practical and demonstrative.

At the theoretical stage, the contestants should demonstrate the knowledge of the educational program materials on the disciplines of the academic block. In order to do this, they should complete two tasks. The first task requires them to make a smart presentation of their reflections on the essence of one of the fundamental categories of science — biology or chemistry. The second task on the chemistry teaching methods is to solve a computing task, and on the biology teaching methods — to perform a practice-oriented task. Each offered solutions should be supported with relevant methodical comments. Let us present some examples of tasks used in our practice.

# 4.3 Task in Biology (Science)

One of the exponents of fundamental biology, as commonly known, is the theory of hierarchical organization of wildlife. Give it a thought and provide convincing written answers to the following questions:

- 1. Which scientists were involved in formulating the provisions of this theory?
- Which provisions reflect its essence formulate them and provide your brief comments?
- 3. Results of which contemporary studies complement provisions of this theory?
- 4. Why does this theory underlie the substantive foundations of the model curriculum in biology for the general education school?

# 4.4 Practice-Oriented Task (Biology)

You have at your disposal a task from the state exam in biology which consists in finding correlations between the traits and types of animals and a scan copy of its solution by the examinee. Recollect the general evaluation principles for such tasks express the criteria for evaluating this task and evaluate the exam paper. Explain the score you assigned to the paper.

# 4.5 Computing Task (Chemistry)

Make the computations: "What mass of sodium should be added to 100 ml of sodium hydroxide solution with a mass fraction of 8% (solution density 1.085 g/cm3) to obtain a solution with a mass fraction of sodium hydroxide equal to 10%?" Describe the algorithm you used to solve the task and propose the criteria for evaluating the task solution.

It should be underlined that for several years of organizing the olympiads we have accumulated our own fund of evaluation materials, which students may use in preparation for the state final certification. The data and similar tasks are to a certain extent aligned with the NTGS guidelines as concerns their structure and content, and are oriented towards application of mainly subject-specific and partially methodical competencies.

At the practical stage, the olympiad participants should demonstrate their readiness to apply the acquired theoretical knowledge on the subject in teaching practice. Moreover, students also had to solve a certain psychological and pedagogical situation which may arise in the work of a biology teacher or a chemistry teacher. Let us present some examples of tasks used in our practice.

# 4.6 Task in Chemistry within a School Curriculum

Plan the content of a lesson fragment using the available reagents and equipment to perform a demonstration experiment under the topic "Redox Reactions". Describe a chemistry teacher's action plan and show the committee members the sequence of steps to ensure the required academic performance of 9th grade students. Solve the below situation that occurred during the demonstration experiment: "Chemistry teacher: "Pay attention to the conditions and profile of chemical reaction...". That's when the teacher notices that one of the students spins the

phone in his hand: "Please put the phone away or turn it off! Student: "I can't. I'm chatting in ICQ. I never put it away or turn it off, I sleep with it. I have no interest whatsoever in your chemical reactions." How will you react - what will you do and what will you say in this situation and why?

We would like to highlight that these and similar tasks are also to a certain extent aligned with the NTGS guidelines and are oriented towards the use of methodological, psychological and pedagogical competencies learned at university.

At the demonstration stage, the olympiad participants were asked to deliver a biology or chemistry lesson to a certain class at secondary school with the use of earlier prepared methodological materials on the topic as indicated by the jury chairman. At this stage, both students and teachers of the chosen schools acted as experts. Their evaluation of the olympiad participant's work at the lesson according to the proposed scheme facilitates the decision of the jury members regarding the demonstrated competencies. Within the demonstration stage, the participants have to complete two tasks:

- 1. Develop lesson design (a lesson plan);
- 2. Demonstrate the implementation of lesson design (a lesson plan) in real school conditions.

The first task requires the use of knowledge and actions for proper description of the methodological and procedural parts of the designed lesson. Concerning the first part, from the perspective of modern requirements to a lesson, the lesson objectives should be formulated in line with the expected outcomes, the forms, methods and means of effective training should be defined, and the core concepts of the academic content to be studied should be expressed. Concerning the second procedural part of the designed lesson, depending on the chosen form and type of a lesson, its structural components should be defined and filled with appropriate didactic content. The second task requires that a full lesson be organized and conducted for a certain category of students. Here the olympiad participants should demonstrate readiness to ensure achievement by students of the target academic, personal and meta-subject results through implementation of own didactic, methodical knowledge and appropriate ways of action, as well as readiness to develop such professionally significant qualities of a teacher as endurance, emotional balance, clear and convincing speech, sociability, ability to listen and distribute time.

It should be highlighted that these tasks are also to a certain extent aligned with the NTGS guidelines and are oriented towards the use of methodological competencies.

For summing up the olympiad results it is better to choose the format of a round table, where participants may share their impressions and discuss the difficulties they encountered when performing the tasks. The round table moderator should incite discussion on the aspects concerning development prospects of the olympiad and building a development trajectory for each olympiad participant in the forthcoming professional activity of a biology or chemistry teacher.

# 5 Conclusion

The presented materials regarding organization and holding of the olympiad on subject-specific teaching methods should be recognized as one of the means for developing the professionally oriented knowledge, skills, value orientations and experience of creativity as the starting elements vital to the career of a teacher of a certain school subject. In general, such olympiads undoubtedly spur and induce personal and intellectual development of pedagogical university graduates, facilitating their self-determination and encouraging them to continue education after graduation. The diagnostic procedures we used for several generations of students participating in the olympiads of two types described above have yielded positive results in several aspects of the forthcoming professional activity. It is noteworthy that almost 100% of students have expressed their willingness to dedicate their life to school in order to realize their

potential in the capacity of a teacher of biology or chemistry. Moreover, about 85% of students expressed their willingness to perform not only traditional teaching, developing and educational functions, but also the functions that correspond to the realities of modernity - diagnostic, research, emotionalcorrective, reflexive, communicative-stimulating and creative. The majority of students (78%) recognized the offered tasks as valuable means for successful overcoming of the challenges faced by the modern education in the field of natural science that contribute to the acquisition of fundamental academic knowledge on the subject and practical skills by the younger generations and their use to achieve educational objectives and in everyday life. Approximately 80% of students gave a positive feedback regarding their understanding of the meaning of personal self-determination, as well as professional growth after graduation. In this regard, they highlighted the major problems that could be overcome while still in university. Those include mastery of materials on the methodological component beneath the content of biology and chemistry under school curriculum, comprehension of theoretical foundations of success in conduction of general methodological and reflexive lessons, organization of educational and cognitive activities of students with disabilities at the biology and chemistry lessons, expansion of educational potential of biology and chemistry.

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**Primary Paper Section:** A

Secondary Paper Section: AM, AN

# D EARTH SCIENCES

DA HYDROLOGY AND LIMNOLOGY

DB GEOLOGY AND MINERALOGY

DC SEISMOLOGY, VOLCANOLOGY AND EARTH STRUCTURE

DD GEOCHEMISTRY

DE EARTH MAGNETISM, GEODESY, GEOGRAPHY

DF PEDOLOGY

DG ATMOSPHERIC SCIENCES, METEOROLOGY

DH MINING INDUSTRY INCLUDING COAL MINING AND PROCESSING

DI POLLUTION AND AIR CONTROL
DJ POLLUTION AND WATER CONTROL

DK CONTAMINATION AND DECONTAMINATION OF SOIL INCLUDING PESTICIDES

DL NUCLEAR WASTE, RADIOACTIVE POLLUTION AND CONTROL

DM SOLID WASTE AND ITS CONTROL, RECYCLING

DN ENVIRONMENTAL IMPACT ON HEALTH

DO PROTECTION OF LANDSCAPE

# STRATEGY FOR SUSTAINABLE DEVELOPMENT OF THE BAIKAL REGION: PROBLEMS, CONTRADICTIONS, WAYS FOR IMPROVEMENT

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Abstract: The viability of any region depends on its capacity to implement the developmental strategy that is aligned with the environmental capabilities, specifics of its location and its culture. In reality, the values pursued by authorities and business go in direct confrontation with the moral imperatives of sustainable development. Lake Baikal is a unique natural sight in the Baikal region, and its uniqueness predetermines certain challenges and visions for the development and implementation of a strategy for sustainable development of the region that should accommodate regional, national and global interests. Transition to sustainable development requires revision of the core values that form the foundation of our society towards recognition of the primacy and respect of the socio-cultural values.

Keywords: sustainable development, the Baikal region, strategic planning, strategic regional development, core values, eco-efficiency, environmental justice, environmental ethics.

# 1 Introduction

Regional sustainable development strategies are seen as coordination centers for the integration of environmental issues in decision making process, as well as for the identification and implementation of sustainable development priorities. Their significance and high value were recognized three decades ago. The main aim of sustainable development strategies is to translate words into action that will help countries to get on the path of sustainable development and keep pace with the times. The strategies make it possible to identify legislative and institutional mechanisms for implementing sustainable development goals.

There are no common or standard models for an effective sustainable development strategy, since sustainable development institutions, capabilities and priorities are defined individually in each region based on a combination of subjective and objective factors. In this connection, each region should independently determine, develop and implement strategies for achieving its sustainable development goals. It is necessary to determine the best approaches to planning and implementing a sustainable development strategy depending upon the prevailing political, historical, economic, socio-cultural and environmental circumstances.

Geographical and geopolitical location of the Baikal region, its natural, resource, ethno-cultural, economic and workforce potential, and Lake Baikal make it one of the main strategic regions of Russia. Sustainable strategic development of the Baikal region as a unique and integral part of the Russian Federation requires a thorough elaboration of strategy with account of its high national and global importance.

# 2 Literature Review

In 1992, at the United Nations Conference on Environment and Development, the United Nations first called on all countries to make strategic and coordinated efforts for the purpose of sustainable development by defining their sustainable development strategies which the governments may use as an instrument to improve the efficiency of strategic decision making in favour of sustainable development (Agenda 21).

Society is now facing the need to fundamentally rethink the very concept of sustainable development. The renowned Russian philosopher A.D. Ursul (2018) rightly notes: "It is hardly right to believe that the sought concept of sustainable development has already been created and the only problem left is its implementation" (p. 97). Theoretical incompleteness and philosophical crudity of the official concept of sustainable

development is one of the reasons why its implementation has not been successful for decades. The idea of sustainable development originated as a result of reflection on the environmental issues. "In its broadest sense, a sustainable development strategy is intended to ensure harmony between people and between society and nature" (Our Common Future, 1987).

A.D. Ursul (1998) notes that the content of the sustainable development concept falls within the noosphere genesis concept suggested and validated by V.I. Vernadsky, and draws parallels between the harmonious development of nature and society with the relations between human and nature managed in a sensible way, and the transition of mankind to the sphere of mind. Orientation towards creation of the noosphere civilization gives a qualitatively new meaning to the idea of sustainable development, transforming the aspiration of mankind for the indefinitely long existence into the construction of civilization based on the principles of ecohumanism, morality, spirituality and mind.

A.S. Astakhov, V.V. Bushuev and V.S. Golubev (2009) consider the sustainable development of the socio-natural system as a progress of society and a balance of the biosphere, and the sustainable development of society as its stable equilibrium state and the progress of its institutions. The degradation of nature as the reverse side of industrial production becomes a direct implication of social, economic and political development. A different prioritization, fair distribution of profits and responsibilities are unrealistic in the current economic practice. Next after nature, the social and political institutions that are losing viability will fall victim to the culture of consumption. U. Beck (1992) comes to the conclusion of inevitability of economic, environmental and social problems with the current development imperatives.

According to A.G. Antipyev and K.A. Antipyev (2014), modernization of economy and society should be based primarily on the effective use and development of human capital, which largely determines the effectiveness of reforms. In such approach, the way out of the current systemic crisis is seen in the transition to a new development model that integrates not only economic and political, but also sociocultural and moral factors. Scientists also point out that the root causes of the modern crisis lie in the socio-culture, in the distorted system of spiritual and moral values.

Professor V.V. Mantatov (2007) believes that the Baikal region may assume a leading role in implementation of a sustainable development strategy should the proper conditions be created to embrace its ethical and environmental potential as a comparative advantage in the process of civilizational transformation. A.P. Sukhodolov (2010) notes that the Baikal region, which has national and international importance, can become the world's model territory to test the methodology and mechanisms of sustainable development. The obtained experience may then be applied in other no less unique regions of the world.

As the core values of sustainable development of the Baikal region, V.V. Mantatov (2007) names: the awe of life, the immanent value of biosphere and its components, non-violence as the only way to well-being. When making decisions on Lake Baikal the following guiding principles should be used: axiological approach in the development of a sustainable development program for the Baikal natural territory; promotion of the esthetic (not consumer) attitude to the Baikal nature and maximized non-competitive use of its natural wealth; maintaining stability of the Lake Baikal ecosystem, rather than spreading the myth about "the growing economy"; in discussion of the Baikal issues, the value judgments are to be made first, with precedence over the quantitative ones: figures have no worth outside the value context (Mantatova & Protasov, 2015, p.

# 3 Research Methodological Framework

The purpose of this study was to identify current contradictions and prospects for sustainable development of the Baikal region and find ways to improve the regional development strategy. The objectives were: (a) to identify the main challenges and factors impacting the strategic development of the Baikal region, (b) to identify possible ways and tools for improving the regional strategy of sustainable development.

Due to the complexity of the problem under exploration the dialectical method was chosen as a key method to comprehend integrity of a multidimensional structure. Dialectics as the basis for understanding the nature of contradictions between material and non-material, social and natural, helps to reveal the deep interrelatedness and interdependence of opposed socio-economic and environmental interests associated with the development of the Baikal region. The systematic-axiological approach helps to identify the sources of problems in social and economic development, and to consider the current regional development tasks in conjunction with national and international development goals.

# 4 Results and Discussion

There are several factors behind the peculiarities and nature of strategic development of the Baikal region. Firstly, this is the natural and resource potential, which is the basis for socioeconomic development of the Baikal region. In addition to the rich abundance of virtually all kinds of natural resources in the region, it is important to stress the general natural and recreational potential. The region's natural ecosystems undisturbed by human interference are of profound importance.

Secondly, the geopolitical factor. The Baikal region is located at the intersection of all the world's major axes. "A special formation emerged here, characterized by the interaction between the western and eastern civilization" (Saktoev et al., 2015, p. 69). From the point of view of strategic importance, the Baikal region as a part of the Russian-Chinese transboundary area is of great importance for sustainable development of Russia as a whole, allowing to pursue geopolitical interests and thus ensure national security, attract national and cross-border corporations to the Baikal region and promote national interests in the international arena (Andreev, 2009).

Thirdly, another positive factor and potential resource for the development of the region is its multi-ethnic composition. Various ethnic communities reside in the region. The culture of the Baikal region has deep roots in the ethnocultural traditions of its indigenous population, which has developed a coherent ecological worldview. The revival of the ecological, cultural, ethical and environmental traditions of the indigenous population is the most important premise for the sustainable environmental development of the Baikal region.

The major problems faced by the Baikal region at the current stage of its development are as follows:

- Disregard of the decisions of the UNESCO World Heritage Committee, the results of researches and positive foreign experience in creating regional development programs and models;
- Disagreement in the public administration system as a result of contradictions between the interests of different institutions (between federal and regional authorities, between different ministries and agencies of the same level, etc.):
- Low environmental consciousness among people, including representatives of authorities and business; according to the sociological study "Environmental Attitudes of Youth in the Republic of Buryatia", urban youth have underdeveloped ethical and environmental attitudes and skills (Mantatov & Mantatova, 2015);
- Imbalance between economic interests and environmental constraints;

- 5. Disregard of the relationship between regulatory and structural elements of the process of sustainable development institutionalization. Legislative norms adopted without due regard for the peculiarities of the target environment (cultural, socio-economic, educational, etc.) do not facilitate positive changes in the current environmental situation:
- Ineffective legal regulation mechanism implying creation of a system of incentives for compliance and a system of penalties for non-compliance with the prescribed norms. (Gunzenova, 2016).

When analyzing attempts to solve the "Baikal problem" over the last few decades, some conclusions can be drawn. First, the taken decisions spurred the development of the region's economy for the benefit of the entire country, but to the detriment of the lake ecosystem, the balance between ecology and economy is possible only subject to the widespread introduction of scienceintensive technologies. Second, it has been proven that the solution of environmental problems hinges on the development of legal and economic mechanisms for nature management, previously the environmental problems were tackled mostly based on prohibitions. Third, involvement of international organizations to find solutions to the environmental problems of Lake Baikal, as the territory belonging to the world natural heritage, remains mostly declarative (Environmental problems in the Lake Baikal basin and the role of "green economy" in their solution, 2013). And most importantly, it is impossible to address the Baikal problems without transformation in the consumer mentality of the Baikal region residents.

The humanitarian aspect of sustainable development is to unleash the spiritual and creative potential of the people (and each individual), as well as to create a socially oriented framework of environmental management. As was repeatedly highlighted by V.I. Vernadsky, a creator of the Noosphere Theory, "everything starts from the human personality", and to a great extent, the global sustainable development is contingent upon raising highly moral and creative individuals capable of solving complex problems of modernity. (Saktoev & Mantatov, 2010). The creation of an advanced education system is conducive to the acquisition of knowledge, skills and abilities corresponding to environmental and ethical standards of development.

Environment preservation and rational use of natural resources to a huge extent rely on high environmental culture of population achieved through a system of universal, continuous environmental education and upbringing. High environmental culture of population is one of the necessary preconditions for the balanced socio-economic development of the Baikal region. Thus, high environmental awareness and environmental culture should become the pillars for the sustainable development of the Baikal region. There is a need to change a vector of spiritual values towards respect for and considerate attitude to nature. Education in the field of sustainable development is an effective socially oriented technology for building a safe and healthy future (Solominskaya, 2017).

The core value underpinning strategic sustainable development of the Baikal region may become the idea of co-evolution. The most important tools to put this idea in motion are the environmental ethics and environmental education. The major aim of environmental ethics is to build in the society a system of guiding value attitudes central to the harmonious relationship between human and nature (Mantatova, 2004).

The historical practice of nature protection shows that it is impossible to solve the problems of strategic development using only an environmental approach. The main drawback of this approach is that it attempts to address environmental problems without account of socio-cultural context. Therefore, it becomes necessary to seek for ways to reconcile the values dominant in the society and the actual environmental and economic situation through co-evolution of human and nature. The issues of strategic sustainable development should be viewed not only

through the prism of environmental and economic parameters, but also with reference to values. Sustainable development is only achievable as a roll-out of the core values and intrinsic potential of the society, and here the revival of spiritual values, ecological and ethnocultural traditions of the people is of utmost importance. Public consciousness is objectively prime and determines the level, structure and the whole essence of society's existence. In its turn, the consciousness of society, its economic mentality, its relationship with nature, its overall economic behavior, how rationally it uses the natural resources and the natural environment, and finally, management of life processes fully depend on the culture, spirituality, morality and intellectual development of society (Drozdovsky et al., 1999).

Eco-efficiency can be used as one of the key criteria for strategic planning.

The concept of eco-efficiency is related to the assessment of relevance of the planning and strategic documents of the state to the ideas of sustainable development. This concept is conducive to finding a balance between economic interests and preservation of nature.

There are two possible applications of the eco-efficiency concept: for assessing the state's action toward socio-natural development and in relation to activities of individual enterprises (Korotkov & Trubyanov, 2014). Thus, two aspects of eco-efficiency can be distinguished, political and economic.

Economic aspect of the eco-efficiency concept is related to reduction of potential costs of the enterprise achieved through a competitive advantage of sustainable production. Eco-efficiency is possible in the production of competitive goods and services that fully accommodate the needs of population, and have a positive impact on the quality of life amidst gradual curtailing of resource consumption and of negative impact on the environment, which should be minimized to the level when our planet restores its capacity to overcome such impacts on its own (Eco-Efficiency Learning Module, 2019). In this case, it can be asserted that the concept of eco-efficiency from the economic perspective is a fleshed-out idea of sustainable development in relation to economic actors in public domain.

Political aspect of eco-efficiency is quantifiable and facilitates detection of imbalances in a certain system, while determining the benefits and effectiveness of various methods used for regulation and management of socio-natural development. Eco-efficiency as a tool, first, is useful for assessing the effectiveness of state regulation of issues concerning socio-natural relations, and secondly, allows to carry out a comparative analysis of the success of various approaches to confront the problems of environmental pollution and degraded quality of life (Methodology, 2018). Quantitative metrics developed under this concept are an effective framework for tracking trends in the quality of state policy for environment protection.

The concept of environmental justice implies curtailed impact on the environment through respect for nature; promotes cultivation of thinking and a worldview of relevant sustainable development; regulates relations between government and business; encourages the development of high-tech industries and, in general, induces the economy's turn to a path of innovation-based development. The concept of eco-efficiency provides an opportunity to translate the idea of sustainable development into action using various tools and assessment methods that make it possible to regulate economic practices and at the same time minimize impact on the environment.

# 5 Conclusion

The prospects of the Baikal region to become an environmental and ethical model of sustainable development, among other reasons, emanate from the fact that this region possesses a wealth of environmental and ethical, cultural and historical traditions related to the moral imperative of sustainable development. The task is to build an ethically and legally solid strategy of national share responsibility for protection of Lake

Baikal and sustainable development of the Baikal region. The lack of an effective strategy for sustainable development of the Baikal region impedes the full use of potential and advantages of the transboundary territory. In light of the factors mentioned above, the core values that will provide a solid foundation for building a rational and effective sustainable development strategy for the Baikal region should be clearly defined.

As follows from the axiology of sustainable development, economic growth makes sense and is justified only if it promotes social justice and satisfies the vital needs of all segments of the population. The concept of sustainable development extends the principle of justice to future generations. Social and environmental justice (as well as recognition of nature's rights) as a compilation of principles governing development of the modern civilization sets a direction for the development of society and nature. Implementation of the environmental justice principles is closely linked to law enforcement, economic and social institutions and consists in fair distribution of resources, equitable economic development and just relationship between human and nature. The development of harmonious relations between nature and society is impossible unless environmental justice gets underpinned with a holistic theoretical framework that finds its practical application.

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**Primary Paper Section:** D

Secondary Paper Section: AP, DJ, DO

# MEDICAL SCIENCES

- FA CARDIOVASCULAR DISEASES INCLUDING CARDIO-SURGERY
- FB ENDOCRINOLOGY, DIABETOLOGY, METABOLISM, NUTRITION
- FC PNEUMOLOGY
- FD ONCOLOGY AND HAEMATOLOGY
- FE OTHER FIELDS OF INTERNAL MEDICINE
- FF ENT (IE. EAR, NOSE, THROAT), OPHTHALMOLOGY, DENTISTRY
- FG PAEDIATRICS
- FH NEUROLOGY, NEURO-SURGERY, NUERO-SCIENCES
- FI TRAUMATOLOGY AND ORTHOPAEDICS
- FJ SURGERY INCLUDING TRANSPLANTOLOGY
- FK GYNAECOLOGY AND OBSTETRICS
- FL PSYCHIATRY, SEXOLOGY
- FM HYGIENE
- FN EPIDEMIOLOGY, INFECTION DISEASES AND CLINICAL IMMUNOLOGY
- FO DERMATOLOGY AND VENEREOLOGY
- FP OTHER MEDICAL FIELDS
- FQ PUBLIC HEALTH SYSTEM, SOCIAL MEDICINE
- FR PHARMACOLOGY AND APOTHECARY CHEMISTRY
- FS MEDICAL FACILITIES, APPARATUS AND EQUIPMENT



# MORBIDITY AND MORTALITY TRENDS ASSOCIATED WITH THE USE OF ALCOHOL AND PSYCHOACTIVE SUBSTANCES (PAS) IN THE YOUNG PEOPLE (AGED 15-19) IN RUSSIA

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Abstract: The paper presents the results of the analysis of 2013 and 2018 morbidity and mortality due to mental disorders and behavior disorders associated with the use of psychoactive substances (PAS) – drugs and alcohol – in persons of the young age (15-19 years old) in the federal districts of Russia. It is shown that over this period, there has been a 1,5 times decrease in alcoholism morbidity among adolescents in Russia, while the drugs-induced morbidity and mortality has increased by 1,5 times. Social and historical causes of change in the quantity of the young people using alcohol and drugs have been considered from the standpoint of forecasting the dynamics of socially determined diseases in the Russian Federation.

 $Keywords: \ adolescents, \ morbidity, \ mortality, \ mental \ disorders, \ psychoactive substances, drugs, alcohol, federal districts of Russia.$ 

#### 1 Introduction

At present, keeping and building up health of the population is a strategic task of the state policy in Russia. Saving and multiplying the people is a national priority (Population of Russia according to the UN forecasts, 2017). The future health of the country's population is closely associated with indices characterizing the present-day condition of health of children.

The generation born in the mid- and late 1990s was formed under "shock therapy reforms" that were considered by the vast majority of families as derogatory intolerable due to miserable income.

The reforms are known to have been accompanied by extensive alcohol involvement and high mortality of the population, and, as a consequence, die-off of those who could and was to have had children (Budaev et al., 2020; Incidence Rate of Mental Disorders..., 2018). In the early 21st century, the situation began to change towards a more optimistic side. In Russia, the 2000s, unlike the 1990s, are not associated with radical political or economic transformations. On the contrary, this period was the stabilization one. At the beginning of the 2000s, there was a change in worldviews, and a generation of the young people having other behavioral preferences was formed. A characteristic feature of the lifestyle of adolescents is all-round IT penetration into all aspects of life which leads to expanding the communications and a particular information behavior that frequently limits direct personal contacts. The computer has become not only a means for obtaining information but also a source of sensory impressions the consumption of which turns into a standalone activity (Safronova & Verbitskaya, 2014). For many, the computer screen has replaced physical exercise, subject and productive activity, direct personal communication outside social networks. The young people born after 2000 are characterized as the "digital" generation.

On the other hand, the present-day active propaganda of healthy lifestyle has also had its influence on the young people's preferences and fashion trends in the formation of healthy lifestyle. The changes having taken place promote broader inoculation of healthy lifestyle, physical culture, and sports into the young people's minds, which contributes to keeping up health (Vygotsky, 1984; Kutarev & Igumnov, 2019; Pochitaeva & Lyutsko, 2015).

# 2 Literature Review

The adolescents' and young people's use of psychoactive substances is a characteristic trend for many countries, which is confirmed by studies of both Russian and foreign scientists (World Drug Report 2018, 2019; Presidential Address to the Federal Assembly, 2020; Vishnevsky, 2011; Smirnova, 2018; The Average Number of Population..., 2020; Serrano et al., 2017; Shedler & Block, 1990; Scalese et al., 2014). In particular, this is characteristic of the young living in the urban settlements and rural areas, belonging to the well-off class and to the poorest strata of the population (Madruga, 2012). Almost "each forth (26,0%) schoolchild has gotten acquainted with psychoactive substances at the age of under 13, and practically each second one has at 13-14 years old" (Presidential Address to the Federal Assembly, 2020).

In studies dealing with these issues, there is no shared opinion about the leading causes provoking the use of psychoactive substances. As a rule, they mention a complex of conditions and factors: social tension (Gromova & Olifirovich, 2018; The Average Number of Population..., 2020), family problems (Grigorieva, 2019), difficulties in communication with classmates and/or teachers (Presidential Address to the Federal Assembly, 2020), social environment (Presidential Address to the Federal Assembly, 2020; Martinotti, 2015), searching for new experiences (Rumpold, 2006). Another group of authors note that manifestations of the young people's inclination to the use of psychoactive substances are associated with changes occurring both in the individual and the public consciousness. They single out uniting factors that provoke an increase in the quantity of drug addicts in particular periods of history (Distribution of the Deceased..., 2019).

This has the following consequences: shrinkage of positive communicative relations among the young and between different generations, the young people's loss of control over their own actions, the onset of a depressive or aggressive condition, a disorder of behavior manifesting itself in the risky sexual behavior and neglect of contraceptive culture (Bryuno, 2016; Serrano et al., 2017), self-destructive actions (Presidential Address to the Federal Assembly, 2020), potentiation of suicidal behavior, higher quantity of attempted and actual suicides among the young people aged 15 to 24 (Presidential Address to the Federal Assembly, 2020), and other mental disorders (Izmerov & Tikhonova, 2011).

# 3 Research Methodological Framework

The objective of this work is to analyze morbidity of socially significant diseases (mental disorders and behavior disorders associated with the use of psychoactive substances: alcohol and drugs), and mortality due to them in adolescents aged 15-17 and 15-19, i.e. ones born at the end of the 1990s (teenagers as of 2013) and in the 21st century (the 2018 teenagers).

The tasks of the work were as follows:

- Analyzing the morbidity of mental disorders and behavior disorders associated with the use of psychoactive substances (alcohol and addictive substances) in adolescents aged 15-17 in Russia and its FD for 2013 and for 2018.
- Analyzing the mortality of the young people aged 15-19 due to causes of death associated with the use of psychoactive substances (alcohol and addictive substances) in Russia and its FD for 2013 and for 2018.

For analyzing the situation reflecting morbidity of mental disorders and behavior disorders associated with the use of psychoactive substances and mortality due to these causes in the age group of 15-19 years old, the following methods were used: the statistical one, the retrospective analysis one, and the comparative one.

The database consisted of the materials of the Federal State Statistics Service (Rosstat) and the Ministry of Health of Russia:

- the data on the number of children diagnosed with drug addiction and alcoholism: table 3.11 the number of children having mental disorders and behavior disorders associated with the use of psychoactive substances, (quantity of people) (Derstuganova et al., 2013);
- forms of the state statistical monitoring of the Federal State Statistics Service (form No. S51 for the years 2013 and 2018), with the number of the deceased due to individual causes distributed according to the age, gender, region of residence, as well as with residence in the urban or rural areas specified (Radaev, 2018);
- the data on the number of the population broken down to ages, with the region of residence, urban and rural areas taken into account (Socially Significant Diseases of the Population of Russia, 2019).

According to ICD-10, the alcohol-associated causes included the diseases from category F10-F19 Mental disorders and behavior disorders associated with the use of psychoactive substances (Matveev et al., 2017).

The following causes of death were included into the group of ones due to the use of alcohol: acute alcohol intoxication, alcohol abuse, alcohol-induced addiction syndrome (chronic alcoholism), other and unspecified mental behavior disorders due to the use of alcohol, alcoholic psychoses, encephalopathy, dementia, alcohol-induced degeneration of the nervous system, alcoholic polyneuropathy, alcoholic cardiomyopathy.

The group of drugs-induced causes of death included: mental disorders resulting from drug abuse, accidental poisoning by and effect of drugs and psychotomimetics (hallucinogens), poisoning by and effect of drugs and psychotomimetics (hallucinogens) not classified in other categories with doubtful intentions.

Based on these data, indices of morbidity and mortality of the urban and rural population of Russia and its FD aged 15-19 (per 10 000 people of the relevant age group) have been calculated.

# 4 Results and Discussion

In the work, morbidity and mortality indices associated with the use of alcohol and addictive substances are considered for the generations of adolescents born in the late 20th century and in the early 21st century. By generation, the authors mean not so much the age cohort but first of all a group of people having experienced important events of history together and due to this showing the uniformity of perceptions and behavioral practices. These generations are separated by conditions in which the process of their moving into adulthood took place. The experience accumulated during socialization in the early teen age produces a forming impact on the remainder of life, because people become less receptive to changes as they grow up (Safronova & Verbitskaya, 2014).

The changes in the condition of health of persons aged 15-19 born in the 21st century, as compared to the generation born at the end of the 20th century, are a trend marker of the processes emerging in health of the future generations. First of all, these are social diseases: in particular, diseases associated with the use of alcohol and psychoactive substances, including drugs. In Table 1, the indices of morbidity of 15-17 years old adolescents calculated by the authors based on the data of the Ministry of Health of Russia and the data of the Federal State Statistics Service (Derstuganova et al., 2013; Socially Significant Diseases of the Population of Russia, 2019) are presented.

The data of Table 1 state that in the period from 2013 to 2018, adolescent morbidity of alcoholism and alcoholic psychoses went down considerably almost in all federal districts (FD) of Russia and, accordingly, in Russia as a whole. It was the NCFD (North Caucasian FD) that was an exception, with its alcoholism levels among adolescents growing five-fold. However, the growth of morbidity indices in an individual federal district is an exception, and it can reflect real changes not in all cases. This is because frequently the population morbidity levels largely depend on healthcare reforms, the quantity of doctors, and,

therefore, they influence the more complete or, conversely, incomplete detectability of diseases as a result.

Table 1 Mental disorders and behavior disorders morbidity associated with the use of psychoactive substances in adolescents aged 15-17 per 10 000 people of the relevant age\*

adolescents aged 13-17, per 10 000 people of the relevant age										
Causes of diseases	year	RF, federal districts								
		RF	CFD	NWFD	SFD	NCFD	PFO	NFD	UFO	FFD
Alcoholism and alcoholic	2013	1,57	1,05	1,11	0,57	0,01	1,2	2,2	4,7	2,74
psychoses	2018	0,43	0,42	0,27	0,34	0,05	0,32	0,44	1,1	0,48
Drug	2013	1,03	0,97	1,2	0,27	0,017	0,6	1,74	2,24	1,79
addiction	2018	1,29	1,15	1,02	1,13	0,26	1,4	1,9	2,44	0,56

\* Calculated by the authors based on the above listed sources of the Rosstat official statistics (Derstuganova et al., 2013; Socially Significant Diseases of the Population of Russia, 2019)

Simultaneously with alcoholism morbidity decreasing almost in all FD (except the North-Western FD (NWFD) and the Far-Eastern FD (FFD)), in the said period, there emerged a growth trend in morbidity of mental disorders and behavior disorders associated with the use of drugs (Table 1). These trends are similar to the changes in the indices of mortality due to this group of social diseases in the urban and rural areas of the RF (Figures 1, 2). For calculating the indices, the authors used the data of forms No. S51 (2013 and 2018), the average annual number of adolescents aged 15-17 and 15-19 (2013 and 2018) by the Federal State Statistics Service, 2013, 2019.

From 2013 to 2018, there was a 1,5 times decrease in mortality of the Russian young people due to causes associated with the use of alcohol; notably, this was the case both in the urban environment and in the rural areas. As the leading cause, accidental alcohol poisoning (58,0%) was registered. In the same period, literally within 5-6 years (2013-2018), the level of mortality of the RF young people due to drugs abuse increased both in the urban settlements and in the rural areas: it almost doubled in the urban environment, and it grew by 1,5 times in the rural areas (Figure 2).

Figure 1 – Alcoholism mortality in people aged 15-19 in urban settlements and rural areas of Russia in the years 2013 and 2018 (per 10000 people of the relevant age group). (Calculated by the authors based on the above listed sources of the Rosstat official statistics (Radaev, 2018; Socially Significant Diseases of the



Figure 2 – Drug addiction mortality in people aged 15-19 in urban settlements and rural areas of Russia in the years 2013 and 2018 (per 10000 people of the relevant age group). (Calculated by the authors based on the above listed sources of the Rosstat official statistics (Radaev, 2018; Socially Significant Diseases of

The highest levels of mortality due to the use of drugs and psychoactive substances are observed in the NWFD, exceeding the similar indices of other FD several times.

Table 2 Drug addiction mortality of adolescents (aged 15-17) in 2018 per 100000 people of the relevant age\*

RF, federal districts								
RF	CFD	NWFD	SFD	NCFD	PFO	NFD	UFO	FFD
0,6	0,6	3,8	0,43	0	0	0,19	0,53	0

\*Calculated by the authors based on the above listed sources of the Rosstat official statistics (Radaev, 2018; Socially Significant Diseases of the Population of Russia, 2019).

#### **5 Conclusion**

Thus, in the latest two decades, the change in health condition indices of the total population of Russia was favorable on balance by 2018: mortality at all ages was going down, and longevity was growing (Gromova & Olifirovich, 2018; International Classification of Diseases of the 10th review, 2019). However, as the forecast data show, in Russia, the structure of the population will go on changing as follows: the global demographic trend - ageing of the population - will be manifested clearly. All forecasts predict noticeable changes in the age composition of the population to have occurred by 2030. The percentage of persons aged 65 and over will go 60% up, and together with it, so will the demographic load on the employable population. Almost each fifth citizen of the country will be over 65 years old in 2030. The percentage of persons younger than the employable age will be decreasing in Russia for more than one decade: from 18,8% in 2020 down to 14,6% (low forecast) or to 17,0% (high forecast) by 2030 (Grigorieva, 2019; International Classification of Diseases of the 10th review, 2019; Vishnevsky, 2011).

Under these conditions, health of the young people and changes in indices characterizing it gain particular relevance. The adolescent period of life is the most vulnerable and receptive to the effects of various events that may have adverse consequences, too. Among them, self-injurious behavior (SIB) and the use of PAS are socially important problems. With regard to this, the latter can act both as a variant of autoaggressive behavior and as an independent substance addiction problem (Bryuno, 2016; Budaev et al., 2020). Against this background, the groups and classes of diseases which are conditioned by social factors draw attention to themselves: namely, social diseases associated with the use of alcohol and drugs (PAS) and closely connected to lifestyle.

In the WHO reports, they point out quicker expansion of the use of drugs and other psychoactive substances (PAS) in the 18–25 age group (Incidence Rate of Mental Disorders..., 2018; Zinoviev & Sofronov, 2008) throughout the world. It follows from this that for preventing morbidity and, therefore, mortality, it is not only more careful diagnostics (which is certainly important) but also the prevention work at school and in the family at the earlier stages of formation of the young people that is necessary.

The country's new social conditions are the foundation for other levels and structure of social diseases as well as mortality due to them to form on. The consequences of social transformations tell on children and adolescents as one of the most vulnerable category of citizens. It is not always that the changes lead to desirable results, and in a number of cases, they can be the cause of mental health problems, create prerequisites for the development of so-called social diseases, including the addiction diseases (Derstuganova et al., 2013; Zinoviev & Sofronov, 2008; Katan & Karpets, 2018). Among the factors having a negative impact on socialization of the rising generation, blurred values and ideals, and complicated economic situation of families are noted the most frequently. Without downgrading the importance of these causes, it should be pointed out that other aspects of social dynamics, for example, escalating migration, instability of the economic space, play one of the major roles in the development of the diverse negative phenomena, too. In their total, they lead to the efficiency of currently existing in practice measures for protecting one as a personality being weakened and leveled out; they are clearly insufficient for overcoming disadaptation of the children making up the risk group (Bryuno, 2016; World Drug Report 2018, 2019; Presidential Address to the Federal Assembly, 2020).

In fact, the authors' studies have shown that against the background of social and economic changes having taken place in the country in the early 21st century, essential shifts in indices of the young people's condition of health have occurred. Definite positive changes in the condition of health of adolescents born at the beginning of the 21st century as compared to those born in the late 20th century (2013 to 2018) are reflected in 1,5 times lower morbidity and mortality due to causes associated with the use of alcohol among the young people aged 15-17 both in the urban and rural areas; the decrease in alcoholism morbidity of the young people aged 15-17 was characteristic for all FD of Russia. These processes are most probably associated with extensive propaganda of healthy lifestyle, sports, change of infrastructure in urban settlements (the availability of sports complexes and facilities).

However, one cannot yet speak about only positive reassuring changes having taken place. The flip side to social and economic transformations of the society is the growth of drug addiction morbidity in the young people (aged 15-17) in a number of Russia's federal districts; the North-Western federal district and the Far Eastern federal districts were an exception.

There is an emerging negative trend of growing mortality of the young people due to the use of drugs. Among 15-19 years old persons, there has been a 1,5 times increase in mortality both in the urban environment and in the rural areas: from 0,48 up to 0,87 per 100 000 of the population of the relevant age.

Given the identified trends in the Russian young people's condition of health, searching for causes of the negative phenomena at the current stage and ways of preventing morbidity due to the use of psychoactive substances and alcohol among the young people becomes an urgent question.

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