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EDUCATION, SCIENCE, INNOVATIONS**

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## ORGANIZATION OF RESEARCH ACTIVITY OF YOUNG SCIENTISTS

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Youth science plays a significant role at Vitebsk State University named after P.M. Masherov. This is not only the participation of young people in scientific research and technical development, but also the development of competencies that allow a young person to percept a global picture according to thorough, holistic study of the subject area.

The main form of work with young people at the university is the supervision within the framework of 15 scientific and educational schools, which were founded and are headed by honoured scientists and teachers, known both in the Republic of Belarus and abroad. The continuity in the work is noted in the following stages: student (participation in student science clubs, olympiads, preparation of research projects, publication of research results) – Master’s degree candidate – postgraduate – teaching at the chairs. The supervision of the youth is carried out by leading scientists through engaging in the implementation of scientific projects, including assignments of state research programmes “Environmental Management and Ecology”, “Convergence – 2020”, “Economics and Human Development of Belarusian Society” (sub-programmes “History and Culture”, “Sociology and philosophy”, “Belarusian Language and Literature”, “Education”). Young scientists at Vitebsk State University carry out research projects with financial support of the Belarusian Republican Fund of Fundamental Research (BRFFR), the Ministry of Education of the Republic of Belarus.

Since 2017 three youth projects of the BRFFR “Science – M” have been implemented under the leadership of A.S. Marudova, A.Yu. Girinskaya, A.V. Martsinkevich; the fulfillment of three more projects led by I.N. Selezneva, V.V. Dolmatova, A.I. Nikitin continues. The research on international scientific projects are being carried out under the direction of young scientists A.A. Tsarev, A.V. Kukharev, Ye.A. Derzhinskiy.

Efforts to implement grants of the Ministry of Education of the Republic of Belarus are effectively made by VSU students, postgraduates and young scientists. So over the past three years funding has been received by Ye.S. Pivovar, A.V. Novoseltseva, N.N. Naletova, S.A. Chepelova, Ye.I. Katznelson, V.V. Dolmatova, D.M. Furik, A.Kh. Bazarevich, M.M. Chernyavskiy, Ye.V. Sokolovskiy, Yu.I. Novikova, V.V. Krivko.

Annually young scientists of Vitebsk State University take part and win in the Open Regional Competition for awards to talented young scientists and specialists at the Vitebsk Regional Executive Committee. The winners of the com-

petition in different years were Doctor of Physical and Mathematical Sciences, associate professor N.N. Vorobyov, Candidate of Philological Sciences, associate professor Ye.V. Kriklivets (2016); Doctor of Pedagogical Sciences, professor Ye.Ya. Arshanskiy (2017); postgraduate A.Yu. Girinskaya, lecturer A.S. Marudova (2018); Candidate of Philological Sciences, associate professor M.L. Dorofenko (2019).

The participation in the annual competition of VSU named after P.M. Masherov for the best research of young scientists became traditionally popular. Among the laureates of the competition in the nomination “The Best Monograph of the Year” are T.A. Tolkachyova, Yu.N. Bahir, Ye.A. Derzhinskiy; in the nomination “The Best Textbook (Manual) of the Year” are Ye.Ya. Arshanskiy, I.S. Borisevich; in the nomination “The Best Cycle of Articles of the Year” are N.V. Kukhtova, A.A. Belokhvostov, N.N. Vorobyov, S.N. Vorobyov, A.V. Zhukov, A.V. Kukharev, V.N. Narushevich, D.E. Shkiryanov, L.Ya. Glazman, M.L. Dorofenko, A.S. Marudova, O.I. Khokhlova.

The competition for grants of VSU was established at the university in 2017 among the students, postgraduates, doctoral students and people working on a candidate or doctoral dissertation outside the system of postgraduate education. According to the competitions results of 2017–2018. D.M. Furik, M.V. Dolgaya (Faculty of Fine and Graphic Arts), K.L. Yakuto, A.V. Martsinkevich, T.B. Karaulova (Faculty of Mathematics and Information Technology), Ye.S. Shestakova, Ye.S. Buichenok (Faculty of Social Pedagogy and Psychology), Ye.V. Rebitskaya, M.V. Koltunova (Faculty of Law), A.A. Lavitskiy (Faculty of Philology), O.M. Balaeva-Tikhomirova, T.A. Tolkachyova, O.I. Khokhlova (Faculty of Biology) became grant winners.

The validation of research results at the annual scientific events of the university testifies to the effective organization of research activities of young scientists, postgraduates and students of VSU. It should be mentioned that 15–18 of such events have international status, including international conference of students, Master’s degree students, postgraduates and young scientists “Youth of the XXI century: education, science, innovation”.

# **DEVELOPMENT OF THE THEORY OF MATHEMATICAL MODELING AND ITS APPLICATION IN EDUCATION AND INDUSTRY**

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## **RESULTS OF SIMULATION MODELING AND RECOMMENDATIONS FOR IMPROVING THE ORGANIZATION OF COMBAT WORK IN AUTOMATED CONTROL SYSTEMS OF TACTICAL MANAGEMENT LINK**

**Alexander Bekish, Andrey Khvisevich**

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As a result of the analysis of the specifics of the combat crew (CC) activity in the automated control systems of tactical management link (ACS TML), changes in the role and place of operators in the control loop, trends in the complexity of combat processes, determining the impact of performance indicators on the effectiveness of operations. The capabilities of the control system revealed that the operator of promising ACS TML remains its main element that carries out goal-setting and coordinating functions [1]. The organization of combat work significantly affects the quality of solving combat command tasks and the effectiveness of the functioning of automated control systems (ACS) as a whole.

Due to the lack of operational and logically related methods for substantiating the characteristics of the activities of BR operators in solving combat control tasks, as well as the lack of due regard for engineering and psychological factors in assessing the quality of activities, a large number of erroneous decisions and actions appear. These shortcomings underestimate the level of combat effectiveness being implemented.

The performed system analysis showed the relevance and necessity of improving the scientific and methodological apparatus for substantiating and evaluating the rational way of organizing the activities of the CC ACS TML in order to improve the quality of solving management problems [2]. The advanced scientific and methodological apparatus is based on the use of CASE-technologies, methods of multi-approach simulation, as well as optimization of activity algorithms. Using the method of sequential accounting of factors in assessing the quality of activities, planning experiments with a small number of factors taken into account made it possible to carry out comprehensive preparation of the source data. On this basis, a new approach has been developed to build the entire logical and mathematical sequence of evaluating and substantiating the rational structure of the organization of combat work, taking into account the composition of the most important groups of factors through management efficiency [3].

The purpose of this research is to develop recommendations based on the conducted simulation to improve the organization of combat work in the ACS TML.

**Material and methods.** The research used CASE-technologies, methods of multi-approach simulation and optimization of activity algorithms.

**Finding and their discussion.** An analysis of the trends in the processes of combat work, as applied to the ACS TML, shows that as the ACS improves, the composition of the tasks has changed insignificantly, but their complexity is increasing. The way they are resolved is changing in the direction of increasing the degree of automation. With an increase in the degree of automation, the activity of the CC in the solution of control problems undergoes significant changes, i.e. its role and place in ACS is changing. The operator is exempted from a number of functions of internal management and maintenance of ACS, a number of functions is reduced in its volume. At the same time, the volume and significance of the functions of external management and especially the use of the complex in terms of making decisions on the use of subordinate units and means, i.e. the role of the ACS operator is constantly growing.

The analysis of the development of ACS TML indicates that the main trends in organizing the activities of operators in solving combat control tasks at ACS are: a decrease in the type of automated workplace (AWP) with a transition to unified workplaces, a reduction in the total number of information display devices and controls on the workstation. Reduction in the total number of full CC with a significant redistribution of the required category of specialists.

Taking into account the indicated tendencies, in order to determine the effectiveness of control, studies were conducted on the dependence of the effectiveness of the organization of CC activities on the ACS TML, which comprehensively takes into account the most significant factors in solving combat command tasks and the density of the air strike. Control efficiency in the existing system decreases significantly with increasing density of the air enemy's strike. This is caused by an increase in the solution time and the probability of missing tasks at high densities. The deterioration of these indicators is caused by overload of the operators of the CC, a long time for them to receive information, and the participation of several persons in the solution of certain problems of the CC. The need for dynamic redistribution of functions between operators in order to leave the commander only those tasks that are creative in nature and associated with the disclosure of the enemy's plan is revealed. The studies showed that the level of operational redundancy of the algorithms for entering commands and orders from the AWP and the number of commands and reports of semantic concepts provided in the information field for entering the existing ACS TML is overestimated. Given the uniformity of the used controls on the workstation, we can talk about the same level of overestimation of the temporal characteristics of the

implementation of algorithms by operators. In many respects, these characteristics are explained by the fact that CC operators perform their functions in the automated mode of ACS operation as a measuring and correcting body.

The analysis of the obtained dependencies made it possible to identify and analyze the influence of the studied factors on the quality of operators' activity. It is shown that through the use of algorithms for setting the target orientation of the activities of combat control operators and an algorithm for ordering tactical episodes, the average time spent on fulfilling the control tasks is reduced. In addition, due to the reduction in the information search time for «conflict situations», an increase in the probability of correct and timely processing of activity algorithms for the whole range of tasks was recorded.

Estimates of the execution time of the algorithm for streamlining management tasks in accordance with the objectives of the operators confirm the possibility of fulfilling their functional duties in real time even with the maximum filling capacity of the information model.

In order to improve the quality of operators' activities on a promising AWP, taking into account the peculiarities of their activities, it is necessary to develop structural and logical schemes of activity algorithms and reflect them in the operational documentation and relevant instructions.

**Conclusion.** The use of the multichannel information model developed by the authors allows increasing the time for completing thought processes by reducing the sensory-perceptual component of activity. A sharp increase in the speech-cognitive component throughout the entire range of tasks allows operators to use the creative component in the decision-making process.

Due to this, the probability of a correct and timely solution to the whole complex of management tasks increases, and the losses of priority «conflict situations» worked out by operators are significantly reduced. Calculations using the simulation method have shown that the implementation of these recommendations simultaneously with the improvement of information models will increase control efficiency.

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## DEVELOPMENT OF AN AFFORDABLE ROBOTIC ARM

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Currently, the development of scientific and technological progress is almost impossible to imagine without robotic mechanisms. For example, the production of products at large and small enterprises has long been carried out on the basis of the conveyor principle, which simplifies and speeds up the process of delivering goods to the final consumer. The attendants at each stage of the conveyor carry out a certain monotonous series of actions, which leads to the idea that these manipulations can be programmed and replaced by a robotic mechanism. Today, there are already many examples of the use of various robotic manipulators that simplify and speed up production at conveyor enterprises. In today's market there are many robotic manipulators that vary in type of control, functions and volume. The most serious and expensive are fully autonomous manipulators, which can perform a programmed cycle of actions without human intervention and adjust their actions as necessary. They can be used for mechanical engineering, welding, packaging and the like.

The leaders in the industry of industrial robots of manipulators can rightly be called FANUC, UNIVERSAL ROBOTS, KUKA and others. However, the models of these brands are far from even affordable for a stable profitable company, which makes them inaccessible for small businesses and society as a whole (Fig. 1). Also, the difficulty is to use the manipulator in practice since it is also difficult to program the robot.



Figure 1. Industrial Robot Arms

The aim of the study is to develop our own, affordable robot manipulator with a clear and simplified software part based on the ROS framework.

**Material and methods.** The material for the study was the models of robotic manipulators, a single-board Raspberry Pi computer with the ability to



connect a number of sensors, as well as the Arduino hardware platform, which allows expanding the capabilities of Raspberry Pi. During the research, computer modeling and programming methods were used.

**Findings and their discussion.** Industrial robotic manipulators use expensive and reliable controllers to ensure safe control of the device, and also have a complex structure, both of the mechanical part and of the software. Therefore to create an affordable and low-cost robot you need to develop a simplified, but at the same time reliable mechanics, as well as to use a reliable controller from the budget price range [1].

To develop the mechanical part of the future manipulator, which will be able to perform a number of useful tasks, first of all, it is necessary to use 3D modeling software, which allows in computer simulation mode to check the nodes of the future design for loads and rotation. Such software products include SolidWorks, Fusion 360 Autodesk, Compass 3D, Onshape. The bulk of the program for 3D modeling are paid. Therefore the choice of modeling in Onshape is the best choice, since the service is cloudy, free and accessible from anywhere in the world, which allows you to conduct development, regardless the location.

To control the robot with a manipulator, a computationally powerful microcontroller is required, therefore 8-bit boards similar to Arduino and others will not work as the main managed control board. An alternative for the better are single-board computers with 64-bit architecture, such as the Raspberry Pi board, which many times exceeds the computational and resource indicators of Arduino boards [2]. A plus is the ability to install the distribution of a full-fledged Linux operating system, namely Ubuntu, as well as the presence of programmable GPIO outputs (Fig. 2). The capabilities of the Raspberry Pi allow you to create robots with Wi-Fi control, connect full-fledged monitors, process data from connected cameras, security systems with face recognition and the like.

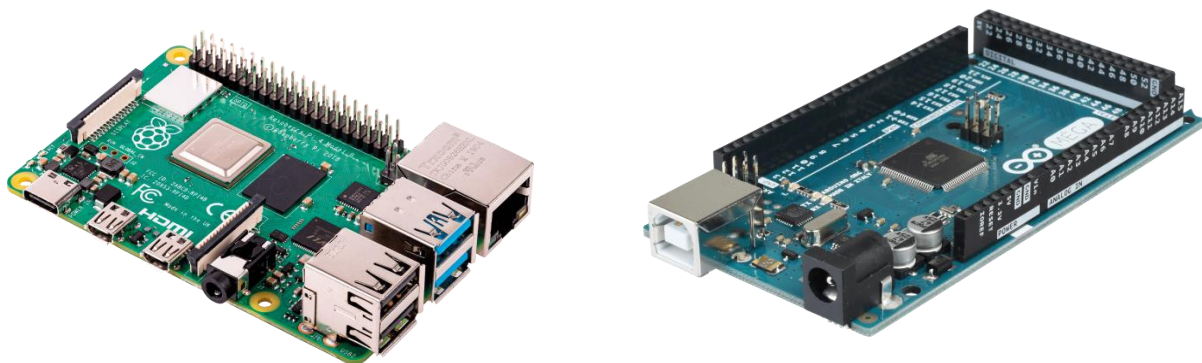


Figure 2. Controls boards

To set the robot in motion the stepper motors NEMA 17, 1.7A type will be used, which are controlled using drivers that allow you to set a microstep for a smooth running of the engine.

To control the robot arm, namely stepper motors, ROS will be installed on the Ubuntu operating system. ROS (Robot Operating System) is a robot programming framework that provides functionality for the distributed operation of all programmable robot systems. ROS is based on graph architecture, where data processing occurs at nodes that can receive and transmit messages between themselves.

The advantages of ROS allow processing and connecting complex sensors to the robot, which speeds up and simplifies the development of software modules for the end device.

**Conclusion.** The analysis of the modern market of robotic mechanisms for various spheres of human activity showed that it is necessary to use advanced software and current technologies that will allow to adapt manipulators for use in everyday life. Creating a low-cost robotic manipulator is possible by using the Raspberry Pi board in conjunction with the Arduino to control the robot itself and when printing robot parts by printing 3D models on a 3D printer.

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## **ON THE APPLICATION OF THE TCHIRNHAUS TRANSFORMATIONS FOR AN ALGEBRAIC EQUATION OF THE THIRD DEGREE**

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From the history of mathematics, it is known that E. V. von Tschirnhaus in 1683 published his own method of solving algebraic equations of various degrees. His goal was to obtain an algorithm for solutions an algebraic equation of the fifth degree [1, p. 166]. Nevertheless, Tschirnhaus's ideas and results can be used to more easily solve algebraic equations of the third and fourth degrees. However, in most authoritative literature on the theory of polynomials and the solution of algebraic equations, only general ideas of the Tschirnhaus transformations are given and there are no specific analytical intermediate formulas. This fact significantly reduces the practical value of the investigated method.

So, the aim of the research is to obtain in a convenient form all the intermediate formulas involved in the Tschirnhaus's transformations for a cubic algebraic equation.

**Material and methods.** The material of the research is cubic algebraic equations and Tschirnhaus's transformations for polynomials. Research methods – methods of algebra and mathematical analysis.

**Findings and their discussion.** Let

$$x^3 + a_1x^2 + a_2x + a_3 = 0 \quad (1)$$

be a cubic equation without multiple roots;  $x_j$  ( $j=1, 2, 3$ ) – the roots of this equation. We get a new equation

$$y^3 + b_1y^2 + b_2y + b_3 = 0 \quad (2)$$

whose roots are numbers

$$y_j = p_0x_j^2 + p_1x_j + p_2 \quad (j=1, 2, 3). \quad (3)$$

Such an equation can be written as

$$(y - p_0x_1^2 - p_1x_1 - p_2)(y - p_0x_2^2 - p_1x_2 - p_2)(y - p_0x_3^2 - p_1x_3 - p_2) = 0. \quad (4)$$

The difficulty is to express the coefficients of equation (4) explicitly in terms of  $a_j$  ( $j=1, 2, 3$ ),  $p_k$  ( $k=0, 1, 2$ ).

**Theorem.** The following equalities hold:

$$b_1 = (2a_2 - a_1^2)p_0 + a_1p_1 - 3p_2; \quad (5)$$

$$b_2 = (a_2^2 - 2a_1a_3)p_0^2 + (3a_3 - a_1a_2)p_1 + 2(a_1^2 - 2a_2)p_0p_2 + a_2p_1^2 - 2a_1p_1p_2 + 3p_2^2; \quad (6)$$

$$b_3 = -a_3^2p_0^3 + a_3p_1^3 + a_2a_3p_0^2p_1 + (2a_1a_3 - a_2^2)p_0^2p_2 - a_1a_3p_0p_1^2 + (a_1a_2 - 3a_3)p_0p_1p_2 - (a_1^2 - 2a_2)p_0p_2^2 - a_2p_1^2p_2 + a_1p_1p_2^2 - p_2^3. \quad (7)$$

**Proof.** We express the coefficients of equation (4) in terms of  $x_j$  ( $j=1, 2, 3$ ),  $p_k$  ( $k=0, 1, 2$ ).

$$b_1 = -(x_1^2 + x_2^2 + x_3^2)p_0 - (x_1 + x_2 + x_3)p_1 - 3p_2;$$

$$b_2 = (x_1^2x_2^2 + x_1^2x_3^2 + x_2^2x_3^2)p_0^2 + (x_1x_2^2 + x_1x_3^2 + x_1^2x_2 + x_1^2x_3 + x_2x_3^2 + x_2^2x_3)p_1 + 2(x_1^2 + x_2^2 + x_3^2)p_0p_2 + (x_1x_2 + x_1x_3 + x_2x_3)p_1^2 + 2(x_1 + x_2 + x_3)p_1p_2 + 3p_2^2;$$

$$b_3 = -x_1^2x_2^2x_3^2p_0^3 - x_1x_2x_3(x_1x_2 + x_1x_3 + x_2x_3)p_0^2p_1 - (x_1^2x_2^2 + x_1^2x_3^2 + x_2^2x_3^2)p_0^3p_2 - x_1x_2x_3(x_1 + x_2 + x_3)p_0p_1^2 - (x_1^2x_2 + x_1^2x_3 + x_1x_2^2 + x_1x_3^2 + x_2^2x_3 + x_2x_3^2)p_0p_1p_2 - (x_1^2 + x_2^2 + x_3^2)p_0p_2^2 - x_1x_2x_3p_1^2 - (x_1x_2 + x_1x_3 + x_2x_3)p_1^2p_2 - (x_1 + x_2 + x_3)p_1p_2^2 - p_2^3.$$

Equality (5) follows directly from Vieta's formulas. To prove equality (6), we must express the coefficients in  $b_2$  for  $p_0^2$  and  $p_1$  in terms of  $a_j$  ( $j=1, 2, 3$ ).

The coefficient that stands for  $p_0^2$  has the form  $x_1^2x_2^2 + x_1^2x_3^2 + x_2^2x_3^2$ . Applying the theorem on the representation of the symmetric polynomial of many variables in terms of elementary symmetric polynomials [2, p. 322], we obtain equality

$$x_1^2x_2^2 + x_1^2x_3^2 + x_2^2x_3^2 = a_2^2 - 2a_1a_3.$$

Similarly, we obtain the equality for the coefficient for  $p_1$ :

$$x_1x_2^2 + x_1x_3^2 + x_1^2x_2 + x_1^2x_3 + x_2x_3^2 + x_2^2x_3 = 3a_3 - a_1a_2.$$

The coefficients for  $p_0p_2$ ,  $p_1^2$ ,  $p_1p_2$  are obviously expressed from the Vieta's formulas.

Similarly, we get equality (7). The theorem is proven.

Next, it is natural to equate the coefficients  $b_1$  and  $b_2$  to zero, which allows us to go from equation (2) to an equation of the form

$$y^3 + b_3 = 0.$$

To simplify the calculations, we take the coefficient  $p_0 = 1$  in all the above formulas.  $p_0 = 1$  Also, without limiting the commonality in the original equation (1), you can take the  $a_1 = 0$  factor, because in practice you can always do it with a known substitution  $x = z - a_1 / 3$ .

Given these simplifications, from equation  $b_1 = 0$  we unequivocally find

$$p_2 = \frac{2}{3}a_2.$$

Substituting  $p_2$  into equation  $b_2 = 0$ , it is easy to obtain that

$$p_1 = \frac{-9a_3 \pm \sqrt{12a_2^3 + 81a_3^2}}{6a_2}.$$

Consider a particular numerical example.

$$x^3 + 9x - 16 = 0.$$

For him we calculate

$$p_1 = \frac{8}{3} + \frac{\sqrt{91}}{3} \approx 5,846464; \quad b_3 = -\frac{66248}{27} - \frac{5824\sqrt{91}}{27} \approx -4511,311818.$$

We calculate three values of cubic root from  $b_3$ :

$$y_1 \approx 16,523458; \quad y_2 \approx -8,261729 + 14,309734i; \quad y_3 \approx -8,261729 - 14,309734i.$$

Substituting successively obtained values of  $y$  into equation (3), we find from it in the general case 6 different values of  $x$ . From these values, we choose those that turn the original equation (1) into identity. In the above example, this

$$x_1 \approx 1,443545; \quad x_{2,3} \approx -0,7217726 \pm 3,250056i.$$

**Conclusion.** Thus, in the course of the work, all intermediate formulas involved in the Tschirnhaus's transformations for a cubic algebraic equation are obtained in an analytical form.

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## LORA TECHNOLOGY TO BUILDING LPWAN IN REPUBLIC OF BELARUS

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Currently, the concept of the Internet of Things (IoT) is increasingly heard. It is a concept whose essence is the interaction of objects connected to a network for interaction between themselves and the outside world.

Initially, the concept was planned for household items and devices, but at this stage, it is applicable in industry, especially with the development of distributed automated process control systems [1].

Combining devices into a single network can be implemented both through wired data channels and wireless.

The main requirements for communication channels (both wired and wireless) are high work efficiency, fault tolerance in various conditions, and the possibility of self-organization of the network. These requirements are met by energy-efficient long-range networks (LPWAN) - wireless technology for transmitting small-volume data over long distances, developed for distributed telemetry networks, machine communications, and the Internet of things.

The purpose to study the capabilities of LoRa wireless data technology for building LPWAN networks

**Material and methods.** LoRa Acsip S76G radio communication modules. The main methods used: analysis, systematization, synthesis, experiment.

**Findings and their discussion.** LoRa is a technology for remote wireless data transmission at frequencies of 433 and 868 MHz (but there may be other frequencies).

LoRa technology is just the physical layer of data transfer that can be used with various data link protocols and in various network architectures: star, point, point-to-point. However, the most popular solution is to use LoRa in LPWAN using the LoRaWAN protocol.

LoRaWAN is an open data transfer standard that provides a high level of network development and is designed for a large number of devices (up to 1,000,000) with a long range and low power consumption, which is standardized by the LoRa Alliance (an association of corporations that promote this technology).

LoRa uses the frequency range allowed for use in the Republic of Belarus. LoRa systems exist for the 433 and 868 MHz bands, but the frequencies of 868 are freer and, therefore, more optimal.

In this range of 1.5 MHz of the unlicensed spectrum - 868.7-869.2. With a power limit of 25 mW. LoRa technology was developed to operate at a power of 25 mW, and, accordingly, these frequencies are excellent for operation on the territory of the Republic of Belarus.

The communication between the gateways and the terminal devices is two-way. Still, it is assumed that the bulk of the data is transmitted from the terminal devices to the gateways. LoRa technology provides wireless transfer rates from 0.3 to 50 kbps.

LoRa provides a large radius of action in an open area (up to 15 km), as well as high penetrating power so that it can receive information from devices used in basements, sewers and other inaccessible places. Under urban conditions, the radius of action decreases markedly and is about 1-6 km, depending on the density of buildings [2].

As of 2019, LoRaWan technology is not widespread in the Republic of Belarus, but it is actively developing in the Russian Federation and the European Union. Several companies produce equipment for creating networks based on the LoRaWan protocol, the most famous of which are Kerlink BS (France), Vega BS (Russia), Cisco BS (USA) [2].

Acsip S76G modules are an integrated solution based on the SX1276 RF module and the STM32F0 protocol. The module is capable of operating in the range from 137 MHz to 1020 MHz. For the module, the manufacturer provides a ready-made library, and programming is carried out similarly to STM32 microcontrollers. It is recommended to use STLinkV2 or similar to software. The module can support LoRa and LoRa-WAN technologies.

When testing the Acsip S76G radio communication modules, the point-to-point mode at a frequency of 868 MHz was used. It was possible to obtain a communication range of ~ 12 km in a direct line of sight. The main problem during testing was the lack of open areas of sufficient length.

**Conclusion.** When checking communications in conditions of indirect visibility, it was possible to get a reliable connection range of ~5km. The data transfer rate was 1200 bytes / s. This speed is sufficient for polling most devices.

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## **CHESS GAME IN UNITY 3D WITH MACHINE LEARNING**

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We often hear such verbal constructions as “machine learning”, “neural networks”. These words have already entered into the public consciousness and often associated with pattern and speech recognition, with the generation of a human-like text. In fact, machine learning algorithms can solve many different types of problems.



Chess is a game with a final number of states. This means that, with endless computing resources, we could find a solution to this game. The history of chess machines is older than the history of computers. The idea of creating a machine that plays chess dates back to the XVIII century. The developed machine learning algorithm on the example of chess will allow us to better understand the structure of the learning process.

The purpose of this work is to analyze machine learning algorithms and develop our own 3D chess game.

**Material and methods.** Let's look at some technical terms. A neural network is a sequence of neurons interconnected by synapses. The structure of the neural network came into the world of programming directly from biology. Thanks to this structure, the machine gains the ability to analyze and even remember various information. Machine learning is a class of artificial intelligence methods, the characteristic feature of which is not a direct solution to a problem, but training in the process of applying solutions to many similar problems. To construct such methods are used mathematical statistics, numerical methods, optimization methods, probability theory, graph theory, various techniques for working with data in digital form.

In the game we will use the following machine learning algorithms:

1. Minimax. This is a decision-making rule used in game theory, decision theory, operations research, statistics, and philosophy to minimize possible losses. In mathematics, the minimax principle is used in problems of approximating functions by algebraic polynomials, in nonlinear programming problems [1].

2. Alpha-Beta pruning. The main idea is that a number of positions can not be considered [2].

3. Heuristics. This is an algorithm for solving the problem, the correctness of which for all possible cases has not been proven, but about which it is known that it gives a fairly good solution in most cases [3].

**Findings and their discussion.** Let's start by developing the algorithm. The first step is to evaluate the board. It was necessary to understand which of the playing sides is stronger in a certain position.

Using the minimax algorithm, we will create a search tree. The algorithm will use it to select the appropriate move. In this case, the recursive tree of all possible moves is examined to a given depth.

To improve the minimax algorithm we will apply alpha-beta pruning. Initially, the program takes the pieces on the board and calculates their weights. This is a rather naive approach, so it's worth improving it. We will begin to consider not only the weight, but also the position of the figures. For example, the figure of the horse on the edge of the board is less "expensive" than the same figure in the middle of the board, because it has much more places available for movement.



After we apply the described improvement, we will get a good algorithm. He plays chess much better than the average person.

The next step will be to implement the chess game on Unity3D. The main scene of the game consists of terrain, a chessboard, a GameManager object for the main script, lighting and a camera. In the project folders we can see the following:

1. Prefabs: it contains a board, individual pieces and squares indicators to highlight cells that will be used in the process of choosing a move.
2. Materials: here are materials for a chessboard, pieces and cells.
3. Scripts: contains scripts that control the game, its components and behavior.

The script responsible for the main aspects of the game will be BoardManager - it is responsible for the initial initialization of chess on the board; handling events of choice and moving a chess piece; designations of available movements; destruction of chess pieces; playback of the background melody and relevant sounds; drawing a chessboard; game behavior after end of game.

The BoardHighlights script is responsible for highlighting the selected chess piece and the moves available for it.

The Chessman script is a generalizing class for the scripts of each chess piece and includes positioning and processing of possible movements.

Scripts King, Bishop, Knight, Pawn, Queen and Rook are responsible for the actions of each of the chess pieces. They are inherited from the Chessman class and in each of them the possible cells for their movement are uniquely calculated. Their current position, the location of other chess pieces on the board and the sequence of moves are taken into account.

**Conclusion.** As a result of the work done, an initial version of the machine learning algorithm for chess was developed using minimax, alpha-beta pruning and some heuristics. Using Unity3D, a visual component of the game was developed with fully functional behavior of objects. A screenshot of the running game can be seen in Fig. 1.



Fig. 1. Screenshot of the running game.

Further it is planned to implement the written machine learning algorithm into the game and improve it, then hold competitive matches between the machine and the person, as well as the machine and the machine.

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## **MULTI-LINGUAL DICTIONARY AS A DIDACTIC TOOL FOR LEARNING A FOREIGN LANGUAGE**

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In the process of learning a foreign language, the work with the dictionary is essential. Such work can be different. At first, it is usually limited to translation: we use translation dictionaries in which semantic material is presented both in the language being studied and in a known language. Afterwards there is a progressive change of teaching methods and, accordingly, the transition to explanatory, monolingual dictionaries of the language under study. Lexicographic publications and materials of various types accompany the process of studying a foreign language communication at all levels and stages.

Coined in English 1680, the word "lexicography" derives from the Greek λεξικόν lexicon and γράφω grapho, "to scratch, to inscribe, to write". Lexicography can be divided into two separate but equally important groups: theoretical and practical ones [1]. The theoretical lexicography studies the semantic structure of words, their peculiarities, interpretation and so on. The practical study is dealing with issues of compiling, writing and editing dictionaries. The practical applied orientation is particularly important in today's realities. Today, the term "computer (or electronic) lexicography" appears more and more frequently in scientific publications and studies because of the Informatization of all spheres of the human life, which entails the informatization of science and its individual branches.

One of the leading specialists in computer linguistics Vladimir Selegey notes, that computer lexicography is a special area of practical lexicography with its own approaches not only to the type of displaying a dictionary but also to the content of it [2].

The form and content of dictionaries should not be overlooked, a function that is undoubtedly subject to change within the context of automation and informatization of educational process.

In this article, we propose a hypothesis that in modern realities, the dictionary can and should not be only a source of information, but also a didactic and methodological tool for teaching, in addition to already known and innovative methods and technologies of teaching.

The aim of the research is to create an example of a multi-lingual dialog dictionary that allows interaction between the program (the dictionary itself) and the student.

**Material and methods.** Using mathematical modeling, we created two prototypes: a multi-lingual bot dialogue dictionary and a bilingual training dictionary, on the basis of which the bot functions. Prototype is a chat bot program capable of dialog with the user using a predefined "phrasebook" – a list of phrases and expected answers to them. In this case, the "phrasebook" is a model of the training glossary, which contains language pairs of words in the studied and native (or already familiar) language – translations. During the experiment, based on the Chat2004 platform (a freely distributed program for the creation of dialogue bots), we have developed a model of the German-Russian dictionary of terms of the closest kinship, recommended for learning during the standard topic "Meine Familie", and suitable for use in German lessons of the primary level (4-6 grade primary and secondary schools).

**Findings and their discussion.** The fundamental and basic characteristic of this model is its interactivity. We call interactive those tools and devices that provide continuous dialogue between the user and the computer [3]. Such educational tools and methods are currently leading in the teaching methodology, as they provide the implementation of personalized and technological approaches. Two algorithms are possible to provide interactivity: the user responds to the requests of the program: the student can enter the translation of those words that are randomly given by the bot, or the program responds to the user's request for a predefined correspondence contained in the dictionary in the form of pairs (word translation). The study identified the following advantages and features of the Dialogue Dictionary as a didactic tool, among others

1) The whole paradigm corresponds to a person-centered approach to learning: the vocabulary of the Dialogue Learning Dictionary is a maximally personalized, pedagogically selected material that corresponds to the level of learning, interests and learning needs of every student.

2) On the same basis, the dictionary model can be considered suitable for narrow topics: the dictionary contains a certain sample of vocabulary units (terms) and will not include redundant information. It increases the relevance of the acquired knowledge and, consequently, the level of motivation to assimilate it.

It has to be noticed that the use of this model in practice requires a number of important pedagogical conditions. The "before use" training should involve all participants of the educational process: students should be prepared and instructed on the algorithm of "communication" with the dictionary, the teacher

should take a responsible approach to vocabulary and bot training, the choice of the strategy and technology for its application in the classroom, think through the methodological and pedagogical meaning of its implementation. That means that working with a dialogue bot requires a very thorough and, as a rule, long preparatory stage, as the functioning of the program largely depends on it.

There may be many variants of technological application of this model in teaching: with the help of a dialogue bot we can test students' knowledge on a given topic using the latest technologies, students can apply to the bot for reference information submitted in an interesting form. After the conversation with the bot, the teacher can review the logs (full recording of the dialogue with the program) and draw a conclusion about the level of vocabulary assimilation on the topic. It is also possible for students to create their own dialogue dictionaries and learn from them as a special way to practice vocabulary.

**Conclusion.** The current level of technologies development of the world dictates the need for an ever-increasing transformation of the educational process. The use of described in the article prototype makes learning more effective, interactive and interesting for students, what should be given special attention in the development of new paradigms and norms in education today, as well as new understanding and reflection of the learning process itself.

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## UNIFORM GLOBAL ATTAINABILITY OF A LINEAR CONTROLLED DISCRETE-TIME PERIODIC SYSTEM

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Today, along with the study of linear controlled periodic systems of ordinary differential equations much attention is paid to the exploration of similar systems with discrete time.

The main aim is to receive the necessary and sufficient conditions of uniform global attainability of a linear discrete-time controlled periodic system.

**Material and methods.** We obtained the main results using the methods of theory of control over asymptotic invariants of linear differential systems, linear algebra and matrix theory.

**Findings and their discussion.** Let  $\mathbb{R}^n$  be a  $n$ -dimensional Euclidean vector space supplied with the norm  $\|x\| = \sqrt{x^T x}$  (here the symbol  $\tau$  means the transpose of a matrix or a vector);  $e_1, e_2, \dots, e_n$  be vectors (columns) of the canonical orthonormal basis for the space  $\mathbb{R}^n$ ;  $M_m$  be the space of real  $m \times n$ -dimensional matrices supplied with the spectral (operator) norm  $\|P\| = \max_{\|x\|=1} \|Px\|$ , i.e. the norm induced by the Euclidean norm in the spaces  $\mathbb{R}^n$  and  $\mathbb{R}^m$  [1, p. 357];  $M_n := M_n$ . Denote by  $E = [e_1, \dots, e_n] \in M_n$  the identity matrix. An interval  $[t_0, t_1)$ , where  $t_0, t_1 \in \mathbb{Z}$ ,  $t_0 \leq t_1$ , is understood as the set of integer points  $t_0, t_0 + 1, \dots, t_1 - 1$  (respectively  $[t_0, +\infty) = \{t_0, t_0 + 1, \dots\}$ ).

For a linear time-varying homogeneous discrete system

$$x(t+1) = A(t)x(t), \quad t \in \mathbb{Z}, \quad x \in \mathbb{R}^n \quad (1)$$

denote by  $X(t, \tau)$ ,  $t \geq \tau$ , the Cauchy matrix, i.e.

$$X(t, \tau) = \begin{cases} A(t-1) \cdots A(\tau), & t > \tau, \\ E, & t = \tau. \end{cases}$$

If  $\det A(t) \neq 0$  for all  $t \in \mathbb{Z}$  then  $X(t, \tau)$  is invertible for all  $t \geq \tau$ . In that case, we set  $X(\tau, t) := X^{-1}(t, \tau)$ ,  $t > \tau$ . Thus,  $X(t, \tau)$  will be defined for all  $t, \tau \in \mathbb{Z}$  and

$$X(t, \tau) = A^{-1}(t) \cdots A^{-1}(\tau - 1), \quad t < \tau.$$

Consider a linear control discrete-time system with  $\omega$ -periodic coefficients

$$x(t+1) = A(t)x(t) + B(t)u(t), \quad t \in \mathbb{Z}, \quad x \in \mathbb{R}^n, \quad u \in \mathbb{R}^m, \quad \omega \in \mathbb{Z} \setminus \{0\}. \quad (2)$$

We close this system with a linear feedback  $u = U(t)x$ , where  $U$  is a bounded and measurable matrix and receive homogeneous system

$$x(t+1) = (A(t) + B(t)U(t))x, \quad x \in \mathbb{R}^n \quad (3)$$

**Definition 1.** [2, p. 217] The system (2) is said to be *completely controllable on the interval*  $[\tau, \tau + \mathcal{G})$  ( $\tau \in \mathbb{Z}$ ,  $\mathcal{G} \in \mathbb{Z}$ ) if for any  $x_0, x_1 \in \mathbb{R}^n$  there exists a control  $u(t)$ ,  $t \in [\tau, \tau + \mathcal{G})$ , that transfers the solution of the system (2) from the point  $x(\tau) = x_0$  into the point  $x(\tau + \mathcal{G}) = x_1$ .

Let  $X_U(t, \tau)$  is the Cauchy matrix of the system (3) with the control  $U(\cdot)$ . Suppose  $X(t, \tau)$ ,  $t \geq \tau$ , is the Cauchy matrix of the system (1) (of the system (2) with  $u(t) = 0$ ,  $t \in \mathbb{Z}$ , i.e.  $X(t, \tau) = X_0(t, \tau)$ ). For  $t > \tau$  let us construct the matrix

$$W_1(t, \tau) = \sum_{s=\tau}^{t-1} X(t, s+1)B(s)B^T(s)X^T(t, s+1).$$

**Definition 2.** [3] The system (2) is said to be  $\mathcal{G}$ -uniform completely controllable ( $\mathcal{G} \in \mathbb{Z}$ ) if there for all  $\mathcal{G} \in \mathbb{Z}$  exists such  $\alpha_i = \alpha_i(\mathcal{G}) > 0$ ,  $i = \overline{1, 4}$ , that for all  $\tau \in \mathbb{Z}$  the following inequalities hold



$$\xi^T W_1(\tau + \mathcal{G}, \tau) \xi > 0, \quad \alpha_1 \|\xi\|^2 \leq W_1^{-1}(\tau + \mathcal{G}, \tau) \leq \alpha_2 \|\xi\|^2, \\ \alpha_3 \|\xi\|^2 \leq X^T(\tau + \mathcal{G}, \tau) W_1^{-1}(\tau + \mathcal{G}, \tau) X(\tau + \mathcal{G}, \tau) \leq \alpha_4 \|\xi\|^2.$$

The system (2) is said to be *uniform completely controllable* (E Y $\mathfrak{S}$ ) if there exists a such  $\mathcal{G} > 0$  that the system (2) is  $\mathcal{G}$ -uniform completely controllable [3].

**Definition 3.** A system (3) has the property of *uniform global attainability* if there exists  $T \in \mathbb{R}, T > 0$ , that for any  $r > 1$  and  $0 < \rho \leq 1$  there is  $\theta = \theta(r, \rho) > 0$ , at which for an arbitrary matrix  $H \in M_n, \|H - E\| \leq r, \det H \geq \rho$  and any  $t_0 \in \mathbb{R}$ , there exists a measurable and bounded control  $U: [t_0, t_0 + T] \rightarrow M_m$  satisfying for all  $t \in [t_0, t_0 + T] \|U(t)\| \leq \theta(r, \rho)$  and guaranteeing for the Cauchy matrix  $X_U(t, s)$  of the system (3) the equality  $X_U(t_0 + T, t_0) = H$ .

The property of uniform global attainability of the system (3) makes it possible to control the entire finite-dimensional basis of the solution space of this system on an arbitrary time interval of fixed length  $T$ , i.e. allows you to choose such a matrix control  $U$ , in which the set  $\{x_i(t)\}_{i=1}^n$  of a linear independent system (3) with this control and initial conditions (the appropriate vectors  $e_i, i = \overline{1, n}$ , canonical orthonormal basis of the space  $\mathbb{R}^n$ ) through time  $\tau$  will be equal to an arbitrary predetermined right basis of this space.

This property was studied for stationary systems with constant coefficients

$$\dot{x} = (A + BU(t))x, \quad x \in \mathbb{R}^n, \quad t \in \mathbb{R} \quad (4)$$

by V.A. Zaitsev (for  $n = 2, 3$ ), by V. A. Zaitsev and by A.F. Gabdrakhimov (for case  $n = 4$ ), and they proved uniform global attainability in the class of piecewise constant controls, by I.N. Sergeyev using the method of reduction to the canonical form a uniform global attainability of a stationary system (4) of arbitrary dimension of the phase space was established under the condition of full controllability of the corresponding system  $n = 2, 3$ .

For a non-stationary linear system

$$\dot{x} = (A(t) + B(t)U(t))x, \quad x \in \mathbb{R}^n, \quad t \in \mathbb{R} \quad (5)$$

with locally integrable and integrally bounded coefficients, given in a special form-in the lower form of Hessenberg, V.A. Zaitsev obtained sufficient conditions for uniform global attainability [4, p. 258–259] of the appropriate system  $\dot{x} = A(t)x, \quad x \in \mathbb{R}^n, \quad t \in \mathbb{R}$ , Uniform global attainability for systems (5) of general form with piecewise continuous and bounded coefficients was obtained by S.N. Popova and E.K. Makarov [4, p. 310–325], for  $n = 2$  and under the assumption of uniform complete controllability of the corresponding system  $\dot{x} = A(t)x + B(t)u, \quad x \in \mathbb{R}^n, \quad u \in \mathbb{R}^m, \quad t \in \mathbb{R}$ , and piecewise uniform continuity [4, p. 264–265] of the matrix  $B$ . I.V. Ints proved uniform global attainability of arbitrary two-dimensional systems (5) with locally integrable and integrally bounded coefficients [5]. S.N. Popova obtained weaker condition of uniform

global reducibility for discrete-time periodic systems [6]. A.A. Kozlov proved uniform global attainability for linear non-stationary periodic systems with piecewise continuous and bounded coefficients [7].

In this paper necessary and sufficient condition of uniform global attainability of non-stationary discrete-time periodic system, i.e. we proved

**Theorem 1.** *A linear discrete-time periodic control system (2) is uniform global controllable iff the corresponding linear closed system (3) has the property of uniform global attainability.*

**Conclusion.** The obtained results can be further used in the theory of control over asymptotic invariants of dynamic systems of arbitrary types.

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## MODELING THE REGIONS OF BELARUS COMPETITIVENESS THE BASED ON PANEL DATA

**Katsiaryna Karpuk**

GrSU named after Y. Kupala, Grodno, Belarus

Comparative analysis of the regions of Belarus competitiveness was conducted. A system of indicators that reflect the competitiveness in the regions under study was built. It consists of five units: quality of the population, living standards, quality of social services, quality of the ecological niche, cultural condition of society, investment attractiveness. Integral indicator of the competitiveness for regions was built using the factor analysis. All baseline indicators were sorted according to their impact.

Countries competitiveness is estimated annually by international non-governmental organization, the World Economic Forum (WEF). The Republic



of Belarus has not taken part in the WEF ratings. Improving the Republic of Belarus competitiveness and the participation in the WEF ratings is scheduled for 2016–2020 by the Government program.

The competitive advantages of the country directly depend on the competitiveness of its regions. In this regard, forming of region competitiveness is the main goal in the task of improving the competitiveness of the country.

**Material and methods.** The system of indicators consists of five units.

Quality of population: rate of natural increase; infant mortality rate; age dependency rate; share of workers with higher education (%); number of marriages (per 1000 persons); number of divorces (per 1000 persons); rate of migration increase (%), life expectancy.

Standard of living: The ratio of per capita income to the minimum subsistence budget ; population provision with housing (m<sup>2</sup> of total area per 1 resident); paid services for population (in actual prices, one thousand rubles per capita); retail turnover of trade (in actual prices, one thousand rubles per capita).

Quality of social sphere: registered unemployment rate (in % of the economically active population); number of injuries at work including death or disability at 1day and more (per 1000 workers); provision with doctors in all specialties (per10000 persons); provision with paramedical personnel (per 10000 persons).

Quality of the environment: air polluting emissions from stationary sources (per1000 persons, tons); share of the captured air pollutants in the total pollution from stationary sources (%); fresh water use (per persons, m<sup>3</sup>).

Investment attractiveness: fixed capital investments per person employed in the economy (million rubles per person employed in the economy); industrial production volume per capita (million rubles); share of loss-making entities (% of the total number of entities); ratio of exports to imports of products (%); profitability of sales (%); share of the shipped innovative products (works, services) in the total volume of own production by industry enterprises (%), the number of employees engaged in research and development.

Official statistics, published in the collections of National Statistical Committee of the Republic of Belarus are used for selected indicators. The study was conducted on panel data for 2013-2017. Comparability of data carried out by bringing the minimum consumer budget by the end of the year.

The integral indicator of the Grodno region districts competitiveness was built in [1] according to the 2008–2010 period based on panel data. A technique based on the methods of applied statistics was used for the construction of integral indicator.

Original 25 indicators were scaled on the interval [0, 1] for comparability of indicators, measured in different units. The indicators were then transformed according to the principal components method of factor analysis into the 4 principal factors. The total percentage of variance, saved by them, is 82%. The first principal factor saves 44,8% of the variance, second factor – 16,8%, third

factor – 11,3%, fourth factor – 9,1%. The factor loadings values of the first principal factor are listed in table 1.

Table 1 – Factor loadings of indicators related to the first principal factor

N	Indicator	Factor 1
1	Number of research staff	<b>0,970</b>
2	Percentage of employees with higher education organizations	<b>0,969</b>
3	Volume of paid services	<b>0,958</b>
4	The ratio of per capita income with BMP	<b>0,943</b>
5	Retail trade turnover	<b>0,923</b>
6	Demographic load factor	<b>0,915</b>
7	Gross regional product	<b>0,879</b>
8	Housing provision	<b>-0,851</b>
9	Natural growth rate	<b>0,748</b>
10	The number of practitioners	<b>0,730</b>

Integral indicator of the competitiveness was obtained using the equation

$$R = 44,8 F1 + 16,8 F2 + 11,3 F3 + 9,1 F4,$$

where R is the competitiveness integral indicator,  $F1$ ,  $F2$ ,  $F3$ ,  $F4$  – values of the first principal factors. The percentage of the dispersion, saved by them, is taken as weight.

The rating of the regions of Republic of Belarus for each year is given in table 2.

Table 2 – Rating regions of Belarus on Competitiveness for 2013–2017

Region	2013	Region	2014	Region	2015	Region	2016	Region	2017
Minsk c	116.93	Minsk c	108.15	Minsk c	121.31	Minsk c	115.29	Minsk c	108.93
Vitebsk	-15.6	Vitebsk	7.21	Minsk	24.83	Minsk	13.18	Minsk	9.14
Gomel	-17.15	Minsk	-7.93	Vitebsk	-13.84	Vitebsk	2.99	Vitebsk	2.37
Minsk	-29.35	Gomel	-20	Gomel	-23.11	Gomel	-4.71	Gomel	-8.47
Mogilev	-29.86	Mogilev	-30.44	Mogilev	-28.54	Mogilev	-21.55	Mogilev	-20.88
Grodno	-34.7	Grodno	-33.71	Grodno	-34.91	Brest	-27.29	Brest	-30.42
Brest	-44.8	Brest	-44.18	Brest	-36.35	Grodno	-34.05	Grodno	-32.4

**Findings and their discussion.** The permanent leader in competitiveness for 2013-2017 is the city of Minsk and the Minsk region. Vitebsk and Gomel and Mogilev take 2-5 places. Permanent outsiders are the Brest and Grodno regions. As can be seen from the table, the best indicators for all regions were in 2015 and 2016, and the worst in 2013 and 2014. Thus, in 2015, there was a slight increase in the economy of the regions.

The most important competitiveness growth factors of Belarus regions for the period under review were revealed (table 1).

The quality of population: the proportion of employees with higher education organizations, age dependency rate, rate of natural increase, rate of migration increase, life expectancy.

The investment attractiveness: share of innovation-active organizations in the total number of surveyed companies.

The standard of living: population provision with housing, the ratio of per capita income to the minimum subsistence budget, paid services for population, retail turnover of trade.

Quality of social services: provision with doctors.

**Conclusion.** In order to solve the identified problems it is, first of all, necessary to create new jobs and thus attract young working population to regions, as well as to implement a package of measures stimulating the development of small and medium businesses in the fields of material production, innovation and provision of public services.

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## **APPLICATION OF FUZZY DECISION TREES FOR TEACHING THE SYSTEM OF RECOGNITION OF OBJECTS OF INTELLIGENCE AND THEIR STATES OF ACTIVITY BASED ON THE FUZZY APPROACH**

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In [1] in the interests of automated recognition of intelligence objects and their activity states with insufficient accumulated statistical information, the authors showed the feasibility of applying an approach based on the theory of fuzzy sets and the fuzzy logic method, in which each of the «arguing» recognition objects is assigned its own degree accessories on the basis of which the duty officer makes a decision. After assessing the reliability of the recognition result obtained, this information is taken into account as accumulated statistical data, which are then used in the formation and refinement of the rules of the fuzzy knowledge base. To train this knowledge base, both statistical data accumulated from the experience of conducting intelligence and expert assumptions (method of expert estimates) are used. However, in view of the subjectivity of the assumptions made, the training of the knowledge base will take a long time and with a deterioration in the quality of decisions regarding the recognition result.

For training a fuzzy knowledge base (both at the initial stage and in the systematic refinement of fuzzy rules), it is proposed to use fuzzy decision trees (a combination of the capabilities of decision trees and fuzzy logic) [2, 3]. This is a well-known and popular method of data analysis, which is based on learning from examples – the training sample. Unlike decision trees, where each example

of a training set belongs to a specific internal node of the tree that gives the solution, instead of the number of examples of a particular node, their degree of membership is grouped in a fuzzy tree.

The purpose of this research is to demonstrate the appropriateness of using fuzzy decision trees for training intelligence recognition systems and their activity states based on a fuzzy approach.

**Material and methods.** The material of this research is a technique for automated recognition of intelligence objects and their activity states, based on the theory of fuzzy sets and the fuzzy logic method, considered in [1]. In the interests of preparing the source data for the qualitative use of the named methodology, instead of the expert assessment method in the formation of a fuzzy knowledge base, such a data mining method as fuzzy decision trees was used.

**Findings and their discussion.** As the initial data, a training set is used in the form of statistical data for the period (for example, for 1 year) on the recognition of reconnaissance objects on the basis of the values of signs identified at the reconnaissance posts. At the stage of preparing data for the proposed algorithm, the drug is determined and the rules of the fuzzy knowledge base are built on the basis of the available statistical data. The method of fuzzy decision trees will allow, based on the existing classification objects of intelligence and the presented training sample, to build and train a fuzzy decision tree (training with a teacher), on the basis of which to create the missing logical rules of a fuzzy knowledge base by launching a system of rare or unpopular values of these intelligence signs (IS).

The algorithm for constructing a fuzzy decision tree consists of the following steps:

1. Implementation of fuzzification – determination of membership functions for the conditions of each example (rule) based on the obtained values of IS  $z_k$ , ( $k = \overline{1...K}$ ).

2. Calculation of the affiliation coefficient of training examples to each of the outcomes (recognition results)  $P_i^N$ .

3. Calculation of the common membership coefficient of all examples  $P^N$ .

4. Definition of total entropy  $E(R_N)$ , i.e. the average amount of information to determine the class of an object  $A_i$  from the set of membership coefficients of all examples.

5. Calculation of entropy for partitioning for each IS with their linguistic values  $E(R_N, z_k)$ .

6. Definition of IS with the maximum increase in information  $z = \arg \max_{z_k} G(R_N, z_k)$  from which the partition begins.

7. Calculation of the degree of belonging to each new node for each record  $\mu_{N|j}(T_s(z_k))$ . Those nodes to which no record belongs, i.e.  $\mu_{N|j}(T_s(z_k)) = 0$ , are removed from the tree. An example of a fuzzy decision tree for two identified clear IS values is presented in Fig. 1.

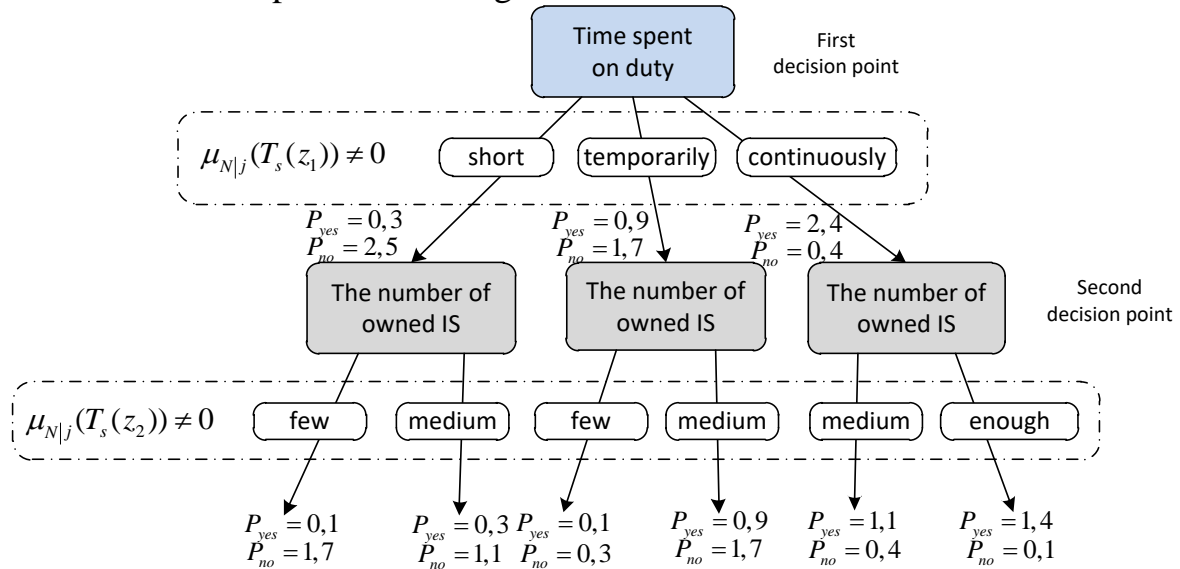


Fig. 1 – An example of a fuzzy decision tree for two IS

8. Based on the resulting tree, indicating the value of each of the signs by which a decision is made, the identification of the identified IS values to the target class is carried out  $\sigma(A_i)$ .

The advantages of this approach are the fast learning and decision making process, visualization and high recognition accuracy, comparable to the accuracy of other classification methods, such as statistical methods, neural networks, etc. [2–4], achieved by combining the advantages of fuzzy logic and decision trees. Since the algorithm is capable of producing not only a class for a new object, but also the degree of belonging to it, this allows us to control the threshold for recognition.

**Conclusion.** Thus, the use of fuzzy decision trees for training a fuzzy knowledge base will make it possible to give more objective assessments of predicting recognition results with specific values of degrees of belonging. The construction of fuzzy decision trees is advisable to be carried out automatically, for example, using a data mining add-in (Data Mining) Microsoft Excel.

Fuzzy decision trees used in data mining for solving classification problems, as well as regression, when it is necessary to know the degree of belonging to a particular outcome, have found wide application, including in military affairs: when modeling decision-making by an automated control system operator, to form the preferred algorithm for the activity of the person making the decision on the available set of data on the problem being solved, for the classification of military personnel on a contract basis, etc.

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## THE USE OF MATHEMATICAL MODELS OF TOPOLOGICAL OBJECTS IN THE STUDY OF PROPERTIES OF TOPOLOGICAL MANIFOLDS

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One of the ways to improve the quality of education is to enrich the school course with subjects that contribute to the broad development of key skills of the 21st century: creativity, critical thinking, cooperation and communication. Elements of general topology are not explicitly studied in the course of school mathematics, but, as you know, topological representations of a person appear before spatial and metric ones [2]. Students, starting from grade seven, operate on such basic topological concepts as internal, external and boundary points, geometric body, surface, internal and external areas, border, etc. These concepts lay the foundation for the further formation of spatial and metric representations of students, as well as to study the topology [2]. The study of topology contributes to the development of spatial thinking, effectively affects the development of creativity and plasticity of thinking of students. Mathematical modeling allows you to consider the object / topic more clearly, allowing you to notice more details and the picture as a whole. Thus, the use of mathematical modeling to study the properties of topological manifolds is relevant.

The aim of the work is to analyze the efficiency of using the method of mathematical modeling when studying the properties of the main topological manifolds on the basis of the developed elective course "Get to know the topology".

**Material and methods.** Experimental teaching of the developed elective course "Get to know the topology" was conducted in grades 5-7 and 9 of the



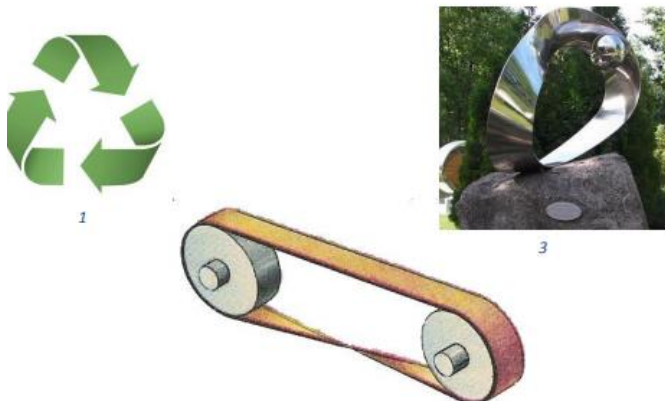
school. In the classroom, students worked in groups on selected topics. One of the topics is “The Magical Properties of the Mobius Strip”. Students were told about the history of the origin of diversity. Together with the teacher, a sample of such a tape was modeled. The students were faced with the task of isolating, studying and telling about the properties of topological diversity. This problem causes difficulties without the use of a diversity model. Therefore, the first stage of work on the topic was the modeling of the Mobius strip. Next – observing and studying the properties of the resulting model.

**Findings and their discussion.** At the beginning of the project, the students in this group set a goal – to find out why the properties of the Mobius strip are called magic. As a result of experiments with a model of topological diversity (cutting, coloring, graphic designation of sides) and group thinking, a group of students described several properties of the Mobius strip: non-orientability, the presence of only one side, the dependence of the result of cutting on the number of torsions on the tape, chromatic number [1].

**Conclusion.** Thus, mathematical modeling allowed students not only to look at the model of non-orientable topological manifold from the angle of the researcher, but also helped to highlight the properties and trace their variability under various conditions specified by the students themselves. It should be noted that students were also able to follow the relationship of this topological

#### Лента Мёбиуса в повседневной жизни

1. Знак вторичной переработки сделан в форме ленты Мёбиуса:
2. Памятник ленте Мёбиуса в Москве:
3. В ременных передачах, чтобы ремень равномерно стирался с двух сторон, его натягивали как ленту Мёбиуса:



diversity with the outside world. Figure 1 (*Translation from the figure: Mobius tape in everyday life. 1. The recycling sign is made in the shape of a Mobius ribbon. 2. Monument to the Moebius ribbon in Moscow. 3. in belt drives, to belt evenly erased from both sides, it was stretched like a Mobius tape*) shows a fragment of a product on the subject “Magical properties of the Mobius strip” of a group of students.

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## INTERSUBJECT RELATIONS OF MATHEMATICS WITH OTHER SCHOOL DISCIPLINES

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The use of intersubject communications in teaching mathematics helps the teacher to perform the following educational functions: it helps to solve purely educational problems in consolidating basic mathematical knowledge, skills and abilities in the process of their constant application in teaching different subjects, being an important factor in improving the learning process at all its levels; allows you to consolidate professionally significant knowledge and skills and create a positive emotional background for learning mathematics; increases interest in studying both mathematics and other disciplines; helps to develop thinking; contributes to the development of significant personality traits; integrates academic disciplines, showing how the same laws are applied in various scientific fields; builds a unified scientific picture of the world and thereby contributes to the formation of a scientific worldview.

The purpose of the study: to investigate the interdisciplinary connections of school mathematics with other subjects in order to develop further integral lessons in mathematics at school.

**Material and methods.** The pedagogical experiment has been carried out since 2019 at the Faculty of Physics and Mathematics of Pskov State University. This article contains information on the use of elements of the mathematical modeling method in various sciences.

**Findings and their discussion.** Let us dwell on the identified interdisciplinary connections of mathematics. When studying mathematics and physics, it is important for the teacher to draw the attention of students to the fact that mathematics is a powerful tool for summarizing physical concepts and laws, and also mathematics is an apparatus for expressing general physical laws and a method for revealing new physical phenomena and facts, and physics in turn, it stimulates the development of mathematics by setting new problems. Intersubject connections of mathematics with chemistry have rather large potential opportunities based on mathematical models of chemical processes. In addition to proportions, percentages, and many problems on mixtures that are widely used in chemistry, solving problems with chemical content provides ample opportunities for constructing mathematical models using linear equations, systems of linear equations, derivative, integrals, differential equations, etc. The study of economics at school is also closely connected with mathematics, intersubject communications are carried out in solving practical problems with economic content using mathematical modeling, properties of functions, elements of set theory and mathematical analysis. In the topic Real numbers, you can notice a connection with topics from physics, namely the

foundations of molecular kinetic theory. Using the following concepts: about the size and measurement, the mass of molecules and atoms, the determination of distances to celestial bodies based on the measurement of parallaxes, measurement errors, accuracy, rules for calculating the error. In the topic Functions and their properties, one can notice that the graphs of functions have interconnections with molecular physics, which demonstrate graphs of thermal processes and deformations, as well as functional dependencies. This topic has connections with chemistry and economics when constructing graphs that reflect the dependencies: the percentage concentration of the solution on the mass of the dissolved substance in a given mass of the solution, the thermal effect of the reaction on the mass of the formed substance, the degree of dissociation of the substance on the concentration of its solution, production curve, etc. In biology, the reproduction of bacteria. Trigonometry (identical transformations of trigonometric expressions; solving trigonometric equations and inequalities; graphs of sine and cosine functions; equations of harmonic oscillations are used in physics - oscillations and waves (alternating current, sound, equation of motion of a mathematical pendulum, displacement, amplitude, phase, frequency), in addition, trigonometry is used in biology (biorhythms) and astronomy (the technique of triangulation, which allows you to measure distances to nearby stars).

The themes of combinatorics, the theory of probability, and statistics are used in statistical physics in the topics of heat conduction, diffusion, and measurement theory. In biology, the genetics of populations, the Hardy-Weinberg law, the laws of G. Mendel, sex-linked inheritance of characters - mathematical statistics are directly used in economic research. Topics Vectors, vector analysis, vector space are used in the sections of physics: kinematics, mechanics, electrodynamics. In concepts: vectors of electric field intensities, principle of superposition of fields, magnetic field of current, electromagnetic induction, addition and decomposition of vectors to describe the electric field, in the law of conservation of momentum. Topics Exponential and logarithmic functions in physics: law of radioactive decay, half-life and biology: law of organic reproduction: under favorable conditions, living organisms would multiply according to the law of exponential function.

**Conclusion.** Thus, the use of interdisciplinary lessons in the process of subject preparation will help to solve the problem of the formation of meta-subject results among students, as well as the disconnectedness, isolation from different scientific disciplines representing the content of academic subjects.

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## ABOUT THE CONDITIONS OF REPRESENTABILITY OF THE POLYNOMIAL NINTH DEGREE IN THE FORM OF SUPERPOSITION OF THE CUBIC POLYNOMIAL FROM THE CUBIC POLYNOMIAL

**Vladislav Zhgirov**

VSU named after P.M. Masherov, Vitebsk, Belarus

The work is relevant in that it is possible to obtain a convenient method for solving an algebraic equation of the ninth degree and to answer the question whether this equation is solvable in radicals.

The purpose of the article is to formulate and justify the necessary and sufficient conditions for the representability of a ninth-degree algebraic polynomial in the form of a superposition of a cubic polynomial from a cubic polynomial.

**Material and methods.** The research material is an algebraic polynomial of the ninth degree of the form:

$$P_9(z) = z^9 + a_1z^8 + a_2z^7 + a_3z^6 + a_4z^5 + a_5z^4 + a_6z^3 + a_7z^2 + a_8z + a_9,$$

as well as representing this polynomial as a superposition of a cubic polynomial from a cubic polynomial.

And as the research methods, we used the methods of algebra, mathematical analysis and the Maple 2017 computer mathematics system.

**Findings and their discussion.** Let the algebraic equation be presented in the following form:

$$P_9(z) = z^9 + a_1z^8 + a_2z^7 + a_3z^6 + a_4z^5 + a_5z^4 + a_6z^3 + a_7z^2 + a_8z + a_9, \quad (1)$$

where  $P_9(z)$  is a polynomial of the ninth degree, representable as a superposition of a cubic polynomial from a cubic polynomial. That is, it takes the following form:

$$P_9(z) = f_2[f_1(z)], \quad (2)$$

where  $f_1(z) = z^3 + b_1z^2 + b_2z + b_3$ ,  $f_2(z) = z^3 + c_1z^2 + c_2z + c_3$ .

Consider the problem for a polynomial of the ninth degree. As  $f_2[f_1(z)] = z^9 + 3b_1z^8 + (3b_1^2 + 3b_2)z^7 + (b_1^3 + 6b_1b_2 + 4b_3 + c_1)z^6 + (b_2^2 + b_1(2b_1b_2 + 2b_3) + b_2(b_1^2 + 2b_2) + 4b_1b_3 + 2b_1c_1)z^5 + (2b_2b_3 + b_1(2b_1b_3 + b_2^2) + b_2(2b_2b_1 + 2b_3) + b_3(b_1^2 + 2b_2) + c_1(b_1^2 + 2b_2))z^4 + (b_2(2b_3b_1 + b_2^2) + c_2 + b_3(2b_2b_1 + 2b_3) + c_1(2b_2b_1 + 2b_3) + 2b_1b_2b_3 + b_3^2)z^3 + (b_3(2b_1b_3 + b_2^2) + b_1c_2 + (c_1 + b_3)(2b_1b_3 + b_2^2) + 2b_2^2b_3 + b_1b_3^2)z^2 + (3b_3^2b_2 + 2c_1b_2b_3 + c_2b_2)z + b_3^3 + c_1b_3^2 + c_2b_3 + c_3$ ,

then equating the coefficients of the resulting polynomial and algebraic polynomial (1) we obtain a system of equations. After analyzing it, we obtain the following equalities:

$$a_4 = -\frac{5}{9}a_1^2a_2 + \frac{2}{3}a_1a_3 + \frac{10}{81}a_1^4 + \frac{1}{3}a_2^2; \quad (3)$$

$$a_5 = -\frac{1}{9}a_1^2a_3 - \frac{2}{243}a_1^5 + \frac{10}{81}a_1^3a_2 - \frac{1}{3}a_1a_2^2 + \frac{2}{3}a_2a_3; \quad (4)$$

$$a_7 = \frac{16}{2187}a_1^7 + \frac{1}{27}a_1^4a_3 - \frac{41}{729}a_1^5a_2 + \frac{32}{243}a_1^3a_2^2 + \frac{1}{9}a_2^2a_3 - \frac{7}{81}a_1a_2^3 - \frac{4}{27}a_1^2a_2a_3 + \frac{1}{3}a_1a_6; \quad (5)$$

$$a_8 = -\frac{1}{6561}(a_1^2 - 3a_2)(11a_1^6 - 75a_1^4a_2 + 54a_1^3a_3 + 135a_1^2a_2^2 - 162a_1a_2a_3 - 27a_2^3 + 729a_6); \quad (6)$$

the coefficient b remains arbitrary, and the rest have the following form:

$$b_1 = \frac{1}{3}a_1; \quad (7)$$

$$b_2 = \frac{1}{3}a_2 - \frac{1}{9}a_1^2; \quad (8)$$

$$b_3 = \frac{1}{3}a_3 + \frac{5}{81}a_1^3 - \frac{2}{9}a_1a_2 - \frac{1}{3}c_1; \quad (9)$$

$$c_2 = a_6 - \frac{4}{81}a_1^3a_3 - \frac{1}{3}a_3^2 + \frac{1}{3}c_1^2 + \frac{2}{9}a_1a_2a_3 - \frac{5}{243}a_1^4a_2 - \frac{1}{27}a_2^3 + \frac{8}{2187}a_1^6 + \frac{1}{27}a_1^2a_2^2 \quad (10)$$

$$c_3 = \frac{c_1^3}{27} + \frac{1}{81}(27a_6 - a_2^3 - 9a_3^2)c_1 + \frac{2}{27}a_3^3 + \frac{1}{81}(a_2^3 - 27a_6)a_3 - \frac{2}{243}a_2(a_2^3 + 9a_3^2 - 9a_3c_1 - 27a_6)a_1 - \frac{1}{81}a_2^2(a_3 - c_1)a_1^2 + \left(-\frac{5}{81}a_6 + \frac{4}{243}a_3^2 + \frac{47}{2187}a_2^3 - \frac{4}{243}a_3c_1\right)a_1^3 + \frac{1}{729}a_2(7a_3 - 5c_1)a_1^4 - \frac{35}{2187}a_2^2a_1^5 + \frac{1}{6561}(8c_1 - 13a_3)a_1^6 + \frac{91}{19683}a_2a_1^7 - \frac{245}{531441}a_1^9 \quad (11)$$

When calculating the expression  $f_2[f_1(z)]$  with such coefficients, we obtain the identity

$$f_2[f_1(z)] = z^9 + a_1z^8 + a_2z^7 + a_3z^6 + a_4z^5 + a_5z^4 + a_6z^3 + a_7z^2 + a_8z + a_9, \quad (12)$$

in which the coefficients  $a_4, a_5, a_7, a_8$  are expressed by equalities (3) – (6). Thus, the following theorem is proved.

**Theorem.** Necessary and sufficient conditions for the representation of  $f_2[f_1(z)]$  polynomial (1) in the form are equalities (3) – (6).

**Consequence.** Equalities (3) – (6) are sufficient conditions for the solvability of an equation  $P_9(z) = 0$  in radicals.

**Conclusion.** As a result of the study, the necessary and sufficient conditions for representing the polynomial of the ninth degree, in the form of a superposition of a cubic polynomial from a cubic polynomial, are found.

# **ECOLOGICAL, BIOLOGICAL AND GEOGRAPHICAL STUDY OF THE RATIONAL USE OF THE RESOURCE POTENTIAL AND ENVIRONMENTAL PROTECTION**

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## **USING PULMONARY FRESHWATER MOLLUSKS IN SCIENTIFIC RESEARCH WORK OF SCHOOLCHILDREN**

**Maria Bartkevich, Ksenia Dashkevich**

VSU named after P.M. Masherov, Vitebsk, Belarus

In the past few years, the intensity of human exposure to the environment has greatly increased. In this regard, much attention is now paid to the formation of an ecological culture and responsibility for preserving the environment among students. To obtain the necessary amount of knowledge, one lesson is not enough, therefore, schoolchildren must be involved as much as possible in research work. A significant problem in the organization of students' research work is the selection of accessible research objects, and simple techniques that can be carried out at school. Currently, widespread assessment of the state of natural ecosystems using living organisms (bioindication) [1]. This direction in research will arouse interest among students and does not require a large material base. The objects may be freshwater pulmonary mollusks, which are widely used to assess the state of fresh aquatic ecosystems.

The purpose of the work is to study the possibilities of using freshwater legal mollusks.

**Material and methods.** Mollusks are a convenient object for research work in the school, due to their accessibility, ease of identification and the availability of literature for the analysis of the data obtained. When studying them, it is possible to carry out both full-scale research work to determine the state of the ecosystem of the reservoir, and just entertaining experiments and observations, to develop skills in working with living objects in students. One of the simplest work that can be done with schoolchildren is to study the glucose content in the tissues of pulmonary freshwater mollusks depending on the season of the year and habitat using standard biochemical kits.

For research, mollusk hemolymph was used. Hemolymph received by means of irritation of the leg with a light, small entomological pin. This stimulates the reflexion of drawing the legs into the rakina, as a result of which a hemolymph from the mantle cavity is isolated externally through the hematal pore.

The determination of uric acid was carried out using sets of reagents NTPK "Analysis X" [3].

Method for determining the concentration of uric acid in hemolymph. Determination of uric acid concentration is carried out by enzymatic method using reagent kits NTPK “Analysis X”.

**Findings and their discussion.** The methodology of the experiment:

1. Prepare a working reagent by mixing reagent 1 (buffer solution) and reagent 2 (enzyme solution) in a ratio of 4: 1.

2. In 3 tubes for the experimental, calibration and blank samples, measure and add 0.02 ml of hemolymph, calibrator and distilled water, respectively, then 1 ml of working reagent is added to each tube.

3. Samples are mixed and incubated for 10 minutes in a thermostat at a temperature of + 37°C.

4. The optical density of the calibration and experimental samples is measured on a spectrophotometer or photocalorimeter at a wavelength of 510 nm against a blank sample.

5. The concentration of uric acid was calculated by the formula:

$$C_{\text{оп.}} = (E_{\text{оп.}}/E_{\text{кал.}}) \cdot 357$$

where,  $C_{\text{оп}}$  – the concentration of uric acid in the studied hemolymph ( $\mu\text{mol} / \text{l}$ );  $E_{\text{оп}}$  – the optical density of the solution containing the hemolymph under study;  $E_{\text{кал}}$  – the optical density of the solution containing the calibration solution; 357 is the concentration of uric acid in the calibration solution.

From tables 2-3 it is seen that the concentration of glucose has significant changes depending on the seasons of the year and the habitat. In the coil, the concentration of uric acid in the horny coil is 1,2 times higher in the spring in the Mozyr district, 1,4 times in the Rogachev district, 1.5 times in the Vitebsk and Ushach districts, and 1,8 times in the Dubrovensky and Shumilinsky districts. In the common pond, a similar pattern of change in the content of uric acid in hemolymph is observed. In the spring, *Lymnaea stagnalis* uric acid level is 1,3 times higher in the Mozyr district, 1,2 times in the Rogachev district, 3 times in the Vitebsk region 2,5 times in the Ushach and Shumilinsky regions, 2,2 times in the Dubrovensky district (tables 1, 2).

Table 2 – Indicators of uric acid concentration in the hemolymph of *Planorbarius corneus* ( $M \pm m$ )

Clam collection area	Season	
	Spring	Autumn
Vitebsk district	137,99±5,23 <sup>1</sup>	92,14±2,02
Dubrovsky district	149,28±1,68 <sup>1</sup>	82,46±2,16
Ushachsky district	139,66±4,55 <sup>1</sup>	96,36±2,36
Shumilinsky district	157,82±4,52 <sup>1</sup>	89,06±2,00
Gomel district	129,36±1,11	121,2±1,97
Mozyr district	148,29±2,77	126,93±3,85
Rogachevsky district	162,57±9,07 <sup>1</sup>	115,93±1,71

Note – <sup>1</sup>p < 0,05 compared with the autumn period of collection of mollusks.



Table 3 – Indicators of uric acid concentration in hemolymph of *Lymnaea stagnalis* ( $M \pm m$ )

Clam collection area	Season	
	Spring	Autumn
Vitebsk district	74,47±1,48 <sup>1</sup>	25,46±0,64
Dubrovsky district	77,61±1,02 <sup>1</sup>	35,31±0,49
Ushachsky district	72,58±1,30 <sup>1</sup>	28,75±0,57
Shumilinsky district	74,82±1,34 <sup>1</sup>	30,36±0,76
Gomel district	67,01±1,49	60,49±1,23
Mozyr district	78,36±1,47 <sup>1</sup>	62,14±1,15
Rogachevsky district	67,28±0,66 <sup>1</sup>	58,09±1,07

Note – <sup>1</sup>p <0,05 compared with the autumn period of collection of mollusks.

**Conclusion.** Thus, freshwater pulmonary mollusks can be used as accessible research objects for school students. When carrying out such work, students in practice practice the techniques and principles of working with living objects. This kind of activity contributes to the development of students' interest in studying the ecological state of the environment.

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## DETERMINATION OF THE CONTENT AND STABILITY OF PHENOLIC ACIDS IN THE EXTRACTS FROM THE LEAVES OF HORSERADISH

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As part of the implementation Of the strategy in the field of BioIndustry, the composition of wild plants, one of which is garden horseradish (*Armoracia rusticana*), is widely studied. This plant is widely known and used for about 700 years. On the territory of the CIS there are 4 species of horseradish, one of them in the territory of the Republic of Belarus (*Armoracia rusticana*) [1–4].

The underground part of horseradish is widely used in folk medicine. The juice of the roots of this plant has pronounced antibacterial properties due to phenolic acids. Freshly prepared extracts from horseradish roots increase the production of hydrochloric acid in the stomach, increase appetite and enhance motility of the gastrointestinal tract [2–5].

When harvesting the roots of the aboveground part of the plant is discarded and widely used, except for cooking, has not yet found. However, complete

processing of the entire plant is cost-effective and waste-free. The chemical composition and properties of the above-ground part of this plant, in contrast to the underground, are poorly studied; the information in the literature is presented in small volumes and is not generalized. Therefore, the study of the chemical composition and possible prospects for the use of the above-ground part of horseradish is an important and urgent task [5].

The aim: to study the content of phenolic acids in alcohol extracts obtained from horseradish leaves.

**Material and methods.** The object of the study was the leaves of horseradish collected in autumn 2019 on the territory of Braslav region. Quantitative determination of the sum of phenolic compounds was carried out by the following method. 1 g of crushed leaves placed in a round-bottomed flask, add 50 cm<sup>3</sup> of ethyl alcohol 70-90%, extracted in a boiling water bath for 2 hours. Cool, filter in a volumetric flask with a capacity of 100 cm<sup>3</sup>, bring the volume of the solution to the mark with ethyl alcohol.

The optical density of the resulting solution is measured on a spectrophotometer at a wavelength of 290 nm, using 96% ethyl alcohol as a comparison solution.

The content of phenolic acids in percentage (X) calculated by the formula:

$$x = \frac{D \times V1 \times 100 \times 100}{P \times V2 \times (m(100 - W))}$$

where D is optical density of test solution at a wavelength of 290 nm; V1– volume of test solution, in ml; V2– volume of the aliquot of test solution, in millilitres; m is the weight of raw material in grams; W– loss in weight at drying of raw material, in percent; R – the rate of absorption FROM solution at a wavelength of 290 nm = 510 for Gallic acid, 464 – to coffee acids, 616 – in terms of tsinarin at a wavelength of 325 nm, 470 – in terms of chlorogenic acid in ethyl alcohol 60% at 328 nm [6].

**Findings and their discussion.** Phenolic acids are found in all parts of almost all flowering plants. Their role in the life of plants is huge, and the functions are diverse. Compounds of this class are an important intermediate in the exchange of amino acids containing aromatic rings. Also, phenolic acids have protective properties: their production in plants is enhanced in the presence of damage, for example, cracks in the bark, fractures on herbaceous stems, leaf damage by insects with gnawing mouth apparatus. Due to the antibacterial action of such compounds, the number of microorganisms in the damaged area of the plant is reduced.

The results of the study are presented in the table:

Table – Content of the sum of phenolic compounds in extracts from the leaves of in the leaves of *Armoracia rusticana*

Extraction	Content of the sum of phenolic compounds, X %
Fresh extraction	3,54±0,01
Week-long extracton	3,70±0,01*

Note: \* –  $p < 0.05$  compared to the fresh extraction

As can be seen from the table, the content of the sum of phenolic compounds is significantly higher in week-long extracton extracts than in fresh extracts by 1,04 times. This indicates the instability of phenolic acids and their transformation into compounds of other classes or condensation reactions, when compounds with a more complex structure are formed.

You can increase the stability of extracts by adding preservatives, such as citric acid or its salts. The use of citric acid in pure form in extracts for internal use is impractical because of its negative effect on the mucous membranes of the gastrointestinal tract. In extracts for external use, the use of citric acid as a preservative is possible. In addition to antibacterial and anti-inflammatory properties, such extracts will acquire additional actions: keratolytic and whitening. The resulting extracts can be part of cosmetics to lighten pigmentation on the skin and various chemical peels.

**Conclusion.** Alcohol extracts obtained from the leaves of horseradish, which grows on the territory of Belarus, are inexpensive and affordable. Phenolic acids contained in extracts have an antibacterial effect on the skin and mucous membranes. It is recommended to introduce freshly prepared extracts into the composition of medicines and cosmetics, as the content of the studied substances in them is higher. To increase the stability of the extracts, it is possible to use preservatives, the most available of which are citric acid and its salts.

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## COMPARATIVE CHARACTERISTICS OF UBIQUITIN PROTEIN IN HUMANS AND PULMONARY FRESHWATER MOLLUSKS

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Proteases probably originated in the earliest stages of protein evolution as simple destructive enzymes necessary for protein catabolism and amino acid generation in primitive organisms. The current success of research in this group of ancient enzymes is due mainly to a large collection of findings demonstrating their relevance in the management of numerous biological processes in all living organisms.

Thus, proteases regulate the fate, localization and activity of many proteins, modulate protein-protein interactions, create new biologically active molecules, contribute to the processing of cellular information, generate, transduce and amplify molecular signals. As a direct result of these multiple actions, proteases affect DNA replication and transcription, cell proliferation and differentiation, tissue morphogenesis and remodeling, heat shock and deployed protein responses, angiogenesis, neurogenesis, ovulation, fertilization, wound repair, stem cell mobilization, hemostasis, blood clotting, inflammation, immunity, autophagy, aging, necrosis and apoptosis.

Finally, proteases are also important tools of the biotechnology industry because of their usefulness as biochemical reagents or in the production of numerous products [1].

Protein modifications provide cells with exquisite temporal and spatial control of protein function. Ubiquitin is one of the most important modifiers, serving both to target hundreds of proteins for rapid degradation by the proteasome and as a dynamic signaling agent regulating the function of covalently bound proteins. The diverse effects of ubiquitylation reflect the Assembly of structurally different ubiquitin chains on target proteins. The resulting ubiquitin code is interpreted by an extensive family of ubiquitin receptors [3].

In all tissues of living organisms, most intracellular proteins are degraded by the ubiquitin-proteasome pathway (UPP). This regulated type of proteolysis plays the most important role in cellular signaling [2].

The relevance of the study is associated with the search for organisms that can be sources of these cells and tissues for the production of proteolytic enzymes for use in practical needs (biopharmaceuticals, cosmetics, nutrition).

As a possible source for the production of proteolytic enzymes, the mollusks widely distributed in the waters of Europe – *Planorbarius corneus* (coil horn) and *Lymnaea stagnalis* (common pond), the closest relative of which is the well-studied *Biomphalaria glabrata* [4].

The aim of this work was a comparative analysis of the degree of homology of proteolytic enzymes in humans and pulmonary freshwater mollusks.

**Material and method.** The paper uses bioinformatic approaches based on the use of different servers: the search and selection of nucleotide sequences encoding human proteins was carried out on the server <https://www.ensembl.org>; search for homologous sequences for mollusks was carried out on the server <https://www.ncbi.nlm.nih.gov> using the BLAST resource.

Nucleotide and amino acid sequences of ubiquitin protein for human and pulmonary freshwater mollusks were used for the analysis.

**Findings and their discussion.** In the human genome, ubiquitin is encoded by 4 genes. But for mollusks, 1 gene was found, which when aligned with each of the 4 human genes gave different percentages of homology.

As a result of the work done, the following indicators were established: Expected value, Identities, Query coverage.

Enzyme	Type of sequence	Expected value	Identities	Query coverage
<i>UBB (Biomphalaria)</i>	NS <sup>1</sup>	6e-180	81%	56%
	AAS <sup>2</sup>	5e-162	99%	100%
<i>UBB (Lymnaea)</i>	NS	2e-59	82%	55%
	AAS	8e-50	100%	99%
<i>UBC (Biomphalaria)</i>	NS	0.0	79%	93%
	AAS	0.0	100%	96%
<i>UBC (Lymnaea)</i>	NS	5e-64	84%	93%
	AAS	1e-45	100%	93%
<i>UBA52 (Biomphalaria)</i>	NS	3e-89	79%	68%
	AAS	8e-87	94%	67%
<i>UBA52 (Lymnaea)</i>	NS	1e-59	82%	39%
	AAS	3e-50	100%	40%
<i>RPS27A (Biomphalaria)</i>	NS	3e-120	81%	43%
	AAS	7e-80	93%	43%
<i>RPS27A (Lymnaea)</i>	NS	1e-112	80%	43%
	AAS	2e-81	93%	43%

Ubiquitin is a small (8.6 kDa) regulatory protein found in most tissues of eukaryotic organisms. Four genes in the human genome code for ubiquitin: UBB, UBC, UBA52 and RPS27A.

In a comparative analysis of these four genes, the following data were obtained for *Biomphalaria glabrata*. UBB – homology on nucleotide sequence – 81%, on amino acid sequence – 99%. UBC – homology on nucleotide sequence – 79%, on amino acid sequence – 100%. UBA52 – homology on nucleotide sequence – 79%, on amino acid sequence – 94%. RPS27A – homology on nucleotide sequence – 81%, on amino acid sequence – 93%.

<sup>1</sup> nucleotide sequence;

<sup>2</sup> amino acid sequence.

For *Lymnaea stagnalis*, slightly different data were obtained. UBB – homology on nucleotide sequence – 82%, on amino acid sequence – 100%. UBC – homology on nucleotide sequence – 84%, on amino acid sequence – 100%. UBA52 – homology on nucleotide sequence – 82%, on amino acid sequence – 100%. RPS27A – nucleotide sequence homology – 80%, amino acid homology – 93%.

**Conclusions.** The homology of this enzyme by nucleotide sequences in humans and pulmonary freshwater mollusks is within 79-81 % (*Biomphalaria glabrata*) and 80-84% (*Lymnaea stagnalis*).

The practical significance of the high degree of homology of proteolytic enzymes in humans and freshwater lung mollusks justifies the formation of aquaculture of mollusks to obtain from their tissues protein enzymatic preparations of proteolytic action in the biopharmaceutical, cosmetic and food industries.

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## **JUNIPERUS COMMUNIS L. SEEDS MORPHOLOGY AND THEIR ANALYZE**

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Gymnosperms seeds have dense seed coat. A membranous structure – nucellus remainder – is situated under it. The remaining volume of the seed is occupied by the thelom gametophyte which had been transformed into the nutrient tissue and by the embryo which is located in a special chamber. The embryo consists of a root, a stalk, cotyledons and a bud. The embryo is connected with the nutrient tissue by a suspensor which departs from the embryo root [1].

There are various methods of studying the viability and internal structure of seeds: organoleptic (based on the external characteristics of the seeds), chemical (non-stratified seeds are stained with 0.05% indigo carmine aqueous solution),



accelerated germination (carried out in laboratory conditions). The "painless" methods of studying seeds are the method of X-rays and the external examination method [2]. V.I. Nekrasov wrote: "Radiography is one of the most perspective methods for the internal seeds structure studying, the endosperm and the embryo degree development. Without the analyzed material damage one can see not only the embryo and the endosperm structural features, but also the various development anomalies of their structural features presence in the X-rays photos" [3, p. 65]. Seeds X-rays photographing in one projection option has been developed in the world practice. The radiography equipment was taken from medicine [4].

The external inspection method gives us visual evaluation of the seeds internal state. Healthy seeds are differ from another by a number of signs, such as weakness, underdevelopment, curvature, seed coat tarnishing, presence of different colors spots and ulcers on its surface [5].

Our aim is to study *Juniperus communis* freshly picked seeds using the external examination method and X- rays method.

**Material and methods.** The research material is the *Juniperus communis* seeds. The plant grows in the Nikolaevo village Shumilinsky district Vitebsk region (Figure 1).

*Juniperus communis* the third year juicy cones samples were collected from August till November 2018 once in a month. Triple repeating. Seeds were taken from the cones without seed coat damage (stratification), examined (magnification x3) and then exposed to X-rays. A green film with 1.8 silver deposit X-rays radiation was used.

08.08.2018 at 10:30 juicy cones were collected, seeds were studied on an Arman-1 X-ray apparatus, dose 80 kV, 1 Mas, 10 cm (1). On September 04, 2018, at 11:30, freshly collected seeds X-rays examination was performed on the same X-rays apparatus with a dose of 70 kV, 1 Mas, 15 cm (2). Subsequent studies were conducted on a Uniekspert3 + X-rays apparatus. 10.02.2018 at 10:00 the photo was taken with a dose of 40 kV, 1Mas, 10 cm (3). 11.06.2018 at 10:00 – the photo with a dose of 40 kV, 1Mas, 15 cm (4). Radiographic studies were performed at the Beshenkovichy Central Hospital under the supervision of N.N. Chernuho, an X-rays laboratory assistant.

**Findings and their discussion.** According to the external examination third year juicy cones seeds (Figure 2) are healthy, have a bluish coat. There weren't find damage ulcers or spots on their surface. X-rays method has been used for checking the internal seeds state.

The first and second radiographic studies results (1,2) are black photos. Using of medical X-rays technology for seeds investigation probably is not so effective with such doses. These results could be obtained not only because of the X-rays exposure high dose, but also because of the Juniper seeds underdevelopment in the period from the first decade of August till the first decade of September. The result of the third and fourth studies (3.4) is clearly visible seeds in the photos, but the embryo has not visible contours.



Fig. 1 – *J. communis* in the Nikolaevo village



Fig. 2 – *J. communis* seed

**Conclusion.** The most perspective methods for *J. communis* seeds studying are the external examination method and soft rays radiography method because it allows us to examine the seeds without damage them. The external inspection method is the most accessible because it does not require an additional equipment. But we can't fully estimate the seeds.

There weren't differences between seeds have been taken from different sides of the horizon during the external examination. All seeds were healthy. The plant grows in apparently favorable conditions.

X-rays analysis as an additional method of controlling seeds quality allows us not only to obtain information about the internal properties of the test material without its damage, but also gives us opportunity to save the information in the form of a document (X-rays photos) [4].

The X-rays method can be used for studing the conifers. *Juniperus communis* L. embryo probably isn't underdeveloped during the time have been chosen for the study. Therefore it is not recorded on X-rays photographs. It was found that Juniper seeds are more clearly visible in the photos with X-rays exposure dose decreasing.

*Juniperus communis* is a medical plant. Its juicy cones with seeds have anti-inflammatory and antimicrobial effects. Treatment with natural drugs becomes more popular in modern medicine. Therefore the external examination method and radiography method can be used in pharmacology as quality seeds indication methods.

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## **THE CONTENT OF THE ANTHRACENE COMPOUNDS IN THE LEAVES OF THE DANDELION, COLLECTED ON THE TERRITORY OF VITEBSK REGION**

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In 2017, the Republic of Belarus developed and adopted the Strategy "Science and technology: 2018-2040". One of the most important directions of this Strategy in the field of Bioindustry is the development of technologies for obtaining economically valuable products based on plant raw materials, as well as the development of therapeutic and preventive drugs, functional products, children's and herodietic nutrition. To implement these directions, the chemical composition of wild plants, one of which is dandelion officinale (*Taraxacum officinale*), is studied [1]. The Pharmacopoeia of many countries, including the State Pharmacopoeia of the Republic of Belarus, contains information about the roots of dandelion. When harvesting dandelion roots, its aboveground part is discarded. In foreign medical practice, along with the underground, the aboveground part of this plant has also found wide application. In some countries, it is used for the manufacture of anti-inflammatory drugs and immunomodulators. There is evidence of the use of the aerial part of the dandelion in folk medicine in European countries [2, 3].

The aim is determination of the quantitative content of anthracene derivatives in dandelion leaves collected in the Glubokoye, Braslav and Vitebsk regions.

**Material and methods.** The material of the study was the leaves of dandelion collected during flowering in the spring of 2019 on the territory of Vitebsk, Glubokoye and Braslav districts of the Vitebsk region of the Republic of Belarus. 0.2 g of crushed dandelion leaves were placed in a flask with a capacity of 50 cm<sup>3</sup>, dissolved in 10 cm<sup>3</sup> alcohol when heated in a water bath at 30-400°C. Cooled, filtered into a volumetric flask at 25 cm<sup>3</sup>, brought the volume of the solution with alcohol to the mark, mixed. The optical density of the resulting solution was measured on a spectrophotometer at a wavelength of 590 nm, using acetone as the comparison solution.

The content of anthraquinone derivatives in terms of hypericin in percent (X) was calculated by the formula:

$$x = \frac{D \times 25 \times b \times 100}{m \times 513}$$

where D – optical density of test solution at a wavelength of 590 nm; 513 – specific absorbance of hypericin in acetone at a wavelength of 590 nm; m is the mass of the drug sample, in grams; b is the average sample mass [4].

**Findings and their discussion.** According to the literature, anthracene compounds stimulate the synthesis of plant polysaccharides, participate in redox processes, protect plants from adverse effects of microorganisms. The obtained values are presented in the table:

Table – Quantitative content of anthracene compounds derivatives in plants from dandelion leaves collected in different districts of Vitebsk region,  $M \pm m$

Region	Content of anthracene compounds, %
Vitebsk	0,26±0,02
Glubokoe	0,19±0,01*
Braslav	0,09±0,01*

Note: \* -  $p \leq 0.05$  compared to Vitebsk region.

It follows from the table that the content of anthracene derivatives in the raw materials collected in the Glubokoye district is significantly lower than in the raw materials collected in the Vitebsk region, by 1.36 times. The content of anthracene derivatives in the raw materials collected in Braslav district is significantly lower than in the raw materials collected in Vitebsk region, by 2.88 times. Differences in the content of anthracene derivatives may be associated with the peculiarities of the climatic regime and soils in different regions of the Vitebsk region.

**Conclusions.** The main effect of derivatives Andrianovich connections laxative. Anthracene derivatives show their action only in the large intestine, where they are hydrolyzed by the intestinal flora. Formed aglycones irritate the walls of the rectum and enhance its peristalsis. Laxative effect develops slowly and for a long time (for 8-10 hours). As a laxatives derivatives of anthracene are used in the elderly, slows down when the mobility of the intestine.

Thus, dandelion leaves can be included in the composition of infusions used in the treatment of diseases of the gastrointestinal tract.

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## **THE DEVELOPMENT OF THE INTERNET OF THINGS IN THE CONTEXT OF ECOLOGICAL PROBLEMS**

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The Internet of things plays a significant role in the modern world. Its implementation is ubiquitous: in agriculture, smart devices are able to predict possible yields; in industry, they are used due to the need to regulate the work of production, to control breakdowns and the operation of automated equipment.

The relevance of this topic is conditioned by the active development of the Internet of things market, as well as the acute environmental situation at the global level. According to statistics, the volume of the Internet of things market in the Russian Federation for 2018 amounted to 250 billion rubles, investments are also increasing in volume. The growth of investments in this area is forecasted [1].

The aim of the work is to study the market of the Internet of things in the field of solving environmental problems: rational consumption of resources, proper cultivation of land in agriculture, etc.

**Material and methods.** One of the hallmarks of the IoT market is its multi-profile development. One of the main directions of the development of the Internet of things market is the solution of environmental problems.

**Findings and their discussion.** Among the main environmental problems can be identified:

- Pollution of air, water, land pools
- Reducing the resource volume of the planet (minerals, flora, fauna)
- Deterioration of soil resources because of an inappropriate farming

The Internet of Things offers the following solutions:

1. The use of environmental sensors.

This type of sensor is able to provide quick access to all modifications in the environment; allows careful monitoring, with the help of which it is possible to build forecasts and calculations in the future. Such sensors can be used to measure temperature, humidity, the level of trace elements in water, soils, and the level of radiation.

2. The use of technology in agriculture.



A striking example is the WaterBee technology, which allows smart irrigation in agriculture. This system collects the necessary information about the condition of the soil and calculates the best irrigation methods in which the minimum amount of water will be spent.

### 3. “Smart home.”

A separate niche of the Internet of things, which is already actively reaching the consumer level, including the Belarusian consuming population. The main direction of the development of the “smart home” technology is the efficient usage of electricity, water in the household. It is predicted that the use of this type of technology can reduce the rate of global warming [2, p. 8].

One of the main providers of IoT services is the State and Government. The use of IoT technologies is also familiar to the Republic of Belarus. So, in the city of Minsk about 60 thousand “smart” lights are connected. This amount is 60% of the total number of lamps. Using this technology, lighting is turned on and off through the SIM cards of the Velcom mobile operator.

Another example of Internet of Things technologies in Belarus is the cash register control system (CRCS). The system is designed to control the registration of cash equipment and the revenue of entrepreneurs passing registration through cash equipment [3].

The usage of the Internet of things can play a huge role in solving environmental problems, creating the conditions for “reasonable” consumption. The implementation of the Internet of things is happening everywhere; this process also affected the Republic of Belarus. At the moment, technology is actively involved in the communal housing complex. Their distribution is still not strong enough and poorly regulated by law.

**Conclusion.** Technologies that are already being created can significantly affect the ecological situation of the countries of the world. There are some vivid examples: InvisibleTracck (tracking illegal logging), BigBelly (trash containers that monitor their occupancy; the technology is used in 54 countries), Bee sensors (tracking the movement of bees; used for this reason that the bees change their location when the environmental situation worsens), Smappee (control of electricity consumption). With proper legislative regulation and sponsorship, the Internet of things is able to improve or at least maintain the country's environmental situation.

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## **BIOCHEMICAL PARAMETERS OF PULMONARY FRESHWATER MOLLUSCS LAKE SENNENSKOYE OF THE SENNENSKY REGION**

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One of the most significant factors affecting the state of water quality is the magnitude of the anthropogenic load on the catchment area of the reservoir. The widespread use of surface water resources in various industries and agriculture, the development of domestic water supply, and the impact of pollutants have led to a variety of anthropogenic pressures on water bodies. Pulmonary freshwater mollusks are convenient test organisms for bioecological and biochemical studies by studying the components of their living environment and metabolic processes [1].

The purpose of the study was to assess the ecological state of Lake Sokorovskoye in the Beshenkovichi district according to indicators of carbohydrate and nitrogen metabolism and the state of the antioxidant system of pulmonary freshwater mollusks.

**Material and methods.** The experiments were performed on 108 pulmonary freshwater mollusks, divided into two groups: 54 individuals of *Lymnaea stagnalis* (common pond) and 54 individuals of *Planorbarius corneus* (horn coil). Mollusks gathered in spring (April-May), summer (July) and autumn (September-October) from about. Sokorovskoye Beshenkovichy district. Hemolymph parameters were determined using the reagent kits NTPK "Analysis X". The concentration of glucose in hemolymph was determined by the glucose oxidase method using Deacon Diazis kits. Determination of protein concentration (mg / g tissue) was performed according to the Lowry method. The content of DNA and RNA (mg / g of tissue) was determined by the method of Blober and Potter. Glycogen was determined by the Krisman method. The products of lipid peroxidation were determined (TBA-positive substances (TBA-PV), a test with 2-thiobarbituric acid was used. Catalase activity (1.11.1.6) was detected by reaction with ammonium molybdate. The amount of reduced glutathione was determined by the reaction of interaction of GSH with 5.5 '-dithio-bis-2-nitrobenzoic acid [1]. Mathematical processing of the results was carried out by the methods of parametric and non-parametric statistics using the statistical software package Microsoft Excel 2003, STATISTICA 6.0.

**Findings and their discussion.** Mollusks from Lake Sennenskoye of the Sennensky region are characterized by the following metabolic parameters (tables 12, 13). Lake Sennenskoye is located in the Sennensky district of the Vitebsk region. It is adjacent to the northern outskirts of the city of Senno and belongs to the river basin. Krivinka. The mirror area is about 3 km, the length of the lake is 6 km, the greatest width is 0.9 km, the maximum depth is 31.5 m, the average depth is 8.6 m, the length of the coastline is about 19 km. The volume of water is about 27 million m<sup>3</sup>, the catchment area is about 70 km. The area is

mostly hilly-hilly, overgrown with shrubs and light forests. The lake is mesotrophic, of the valley type. The shores are sandy, mostly steep in places, overgrown with shrubs and light forests. Shallow water is narrow, sandy. The transparency of the water is low.

Table 1 – Metabolism in hemolymph and hepatopancreas *Planorbarius corneus* from l. Sennenskoye of the Sennensky region ( $M \pm m$ )

Indicator	Season of the year		
	Spring(n=9)	Summer(n=9)	Autumn(n=9)
Total protein (hemolymph) (mg/ml)	36,62±1,70 <sup>1</sup>	23,72±0,45	31,38±0,57 <sup>1</sup>
Total protein (hepatopancreas) (mg/g)	180±6,5 <sup>1,2</sup>	243±3,4	322±12,9 <sup>1</sup>
DNA (mg /g)	1,54±0,15 <sup>2</sup>	1,73±0,12	1,98±0,15 <sup>1</sup>
RNA (mg /g)	15,25±0,71 <sup>1,2</sup>	12,83±0,44	10,06±0,41 <sup>1</sup>
Urinary acid (µmol /l)	157,31±425 <sup>1,2</sup>	126,26±3,18	83,54±2,24 <sup>1</sup>
Urea (mmol /l)	6,45±0,10 <sup>1</sup>	7,94±0,10	6,95±0,06 <sup>1</sup>
Glucose (mmol /l)	1,70±0,256 <sup>1,2</sup>	1,12±0,079	0,69±0,033 <sup>1</sup>
Glycogen (mg /g)	19,37±0,138 <sup>1,2</sup>	20,14±0,174	24,48±0,184 <sup>1</sup>
TBK-PV (µmol /g)	5,84±0,34 <sup>1,2</sup>	2,78±0,21	4,11±0,23 <sup>1</sup>
Reduced Glutathione (µmol /g)	10,58±0,06 <sup>1,2</sup>	6,87±0,03	8,92±0,05 <sup>1</sup>
Catalase (µmol /min /g)	69,5±1,6 <sup>1,2</sup>	28,7±1,2	48,8±1,4 <sup>1</sup>

Note: <sup>1</sup>p <0,05 compared with the summer period of collection of mollusks; <sup>2</sup>p <0,05 compared with the autumn period of collection of mollusks.

Compared with the autumn harvest period, two species of mollusks have an increased RNA content in the spring and summer harvest periods of 1.3 times on average. *Pl. corneus* and *L. stagnalis* increased uric acid content in the spring and summer periods of collection in 2.0 and 1.5 times compared with the autumn period of collection. Compared with the autumn harvest period, the horny coil has increased glucose in the spring and summer harvest periods of 2.5 and 1.6 times, and that of the common pond, 2.2 and 1.6 times. In two species of mollusks, the content of TBA-PV and reduced glutathione in hepatopancreas increased in the autumn and spring periods by 2.1 and 1.5 times and 1.5 and 1.3 times, compared with the summer period of collection. Compared to the summer harvest at *Pl. corneus* and *L. stagnalis* increased catalase activity in the spring and autumn periods of collection in 2.4 and 1.7 times (tables 1, 2).

Table 2 – Metabolic parameters in hemolymph and hepatopancreas *Lymnaea stagnalis* from l. Sennenskoye Sennensky region ( $M \pm m$ )

Indicator	Season of year		
	Spring(n=9)	Summer(n=9)	Autumn(n=9)
Total protein (hemolymph) (mg /ml)	14,54±0,17 <sup>1</sup>	10,24±0,15	15,16±0,21 <sup>1</sup>
Total protein (hepatopancreas) (mg /g)	203±6,7 <sup>1,2</sup>	160±5,7	263±6,5 <sup>1</sup>
DNA (mg /g)	1,54±0,03 <sup>1,2</sup>	1,72±0,04	2,07±0,06 <sup>1</sup>
RNA (mg /g)	8,04±0,21 <sup>1,2</sup>	7,37±0,18	5,89±0,34 <sup>1</sup>
Urinary acid (µmol /l)	77,85±1,16 <sup>1,2</sup>	55,38±1,46	36,25±0,38 <sup>1</sup>
Urea (mmol /l)	6,95±0,16 <sup>1</sup>	8,94±0,13	6,78±0,04 <sup>1</sup>
Glucose (mmol /l)	0,88±0,093 <sup>1,2</sup>	0,64±0,034	0,40±0,056 <sup>1</sup>
Glycogen (mg /g)	23,74±0,342 <sup>2</sup>	26,15±0,138	27,22±0,282

TBK-PV (μmol /g)	5,86±0,28 <sup>1</sup>	2,87±0,27	4,32±0,26 <sup>1</sup>
Reduced Glutathione (μmol/g)	10,48±0,08 <sup>1,2</sup>	7,32±0,07	8,78±0,13 <sup>1</sup>
Catalase (μmol /min /g)	70,4±1,8 <sup>1,2</sup>	29,4±1,4	50,7±2,3 <sup>1</sup>

Note: <sup>1</sup>p <0.05 compared with the summer period of collection of mollusks;  
<sup>2</sup>p <0.05 compared with the autumn period of collection of mollusks.

Compared to the spring harvest period, the concentration of total protein in the hepatopancreas of the horny coil was 1.4 and 1.8 times higher in summer and autumn, and in the common pond, 1.3 and 1.6 times, respectively. The total protein content in the hemolymph of two species of mollusks in the spring and autumn periods of collection exceeded 1.4 times the summer values. Urea level in *Pl. corneus* and *L. stagnalis* collected in summer exceed spring and autumn by 1.2 times. The concentration of glycogen and DNA in the hepatopancreas of two species of mollusks increases from spring to autumn an average of 1.2 times (tables 1, 2).

**Conclusion** Based on the results obtained, an algorithm can be created to establish the ecological state of natural reservoirs by analyzing simple and accessible methods for studying key metabolism indicators by two parameters - the season of the year and habitat using the widely used test organisms *Planorbarius corneus* and *Lymnaea stagnalis*.

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## CONTENTS OF MALON DIALDEHYDE IN WHEAT AND CUCUMBER SPRINGS AT ALLOELOPATHIC INTERACTION WITH OIL REDISH

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Between plants exist various types of influence, including allelopathic. They are caused by the release of various chemicals by plants, for example, hormones, volatile, enzymes. The chemical composition of some substances with allelopathic properties has been established – terpenoids, alkaloids, steroids [1]. These substances can promote the growth, development of other plants, or suppress these processes, while being stressors. In the field, it is difficult to establish the allelopathic effect of plants due to the presence of microorganisms, plant debris, etc. Because, it is necessary to simulate processes in the laboratory. Such a model is the joint germination of seeds. In existing studies on allelopathic interaction, morphometric methods are most often used. It is of interest to find out what metabolic features are manifested in this case. It is known that in the process of germination there is a change in the quantitative

and qualitative changes in the lipid composition, including due to lipid peroxidation (LP), due to the activation of metabolic processes with the participation of oxygen [2, 3], as well as when exposed to allelopathic substances [1]. The product of lipid degradation is malondialdehyde (MDA), the content of which can determine the level of allelopathic effect of plants on each other.

The purpose of the work is to determine the content of malondialdehyde in seedlings when the seeds of cucumber (*Cucumis sativus*) and common wheat (*Triticum vulgare*) with seeds of oil radish (*Raphanus raphanistrum*) are germinated together.

**Material and methods.** For the experiment were used 6 groups of seeds. The first two groups – wheat and cucumber seeds – before germination were soaked in distilled water, the second two groups were soaked in green mass extract of oil radish grown in the field as green manure. The third two groups germinated together with the seeds of oil radish. Oil radish extract was prepared according to the following procedure: 5 g of plant material was triturated with 10 ml of distilled water, extracted for 6 hours at a temperature of 29° C, centrifuged at 3000 rpm for 15 minutes.

Soaking seeds was carried out for 2 hours, germinated in Petri dishes on a filter paper substrate at 25° C in the light for 3 days, wetting them with distilled water (10 ml per Petri dish). The number of seeds in one cup is 15 pieces. The experiment was carried out in triplicate. The determination of the content of MDA was carried out as follows: seedlings were crushed in a cold 0,15 M KCl solution (1: 9). Samples were heated for 20 min in a boiling water bath, and then cooled under running water and centrifuged for 10 min at 1500 rpm. The content of malondialdehyde was measured by the intensity of the developed color by the reaction with thiobarbituric acid (TAC) on a spectrophotometer at a wavelength of 532 nm ( $\varepsilon = 1.56 \cdot 10^5 \text{ M}^{-1} \text{ cm}^{-1}$ ) [4].

The obtained results were processed by the method of parametric statistics using the Microsoft Excel 2010 statistical software package. The statistical significance of the differences was determined by the Student criterion with  $p < 0,05$ .

**Findings and their discussion.** The results are presented in the table.

It follows from the table that the amount of MDA in cucumber seedlings is approximately 1.7 times greater than in wheat seedlings in all groups. Shrovetide extract increased the content of MDA in seedlings of both cucumber and wheat, respectively, 1.4 and 1.3 times. The joint germination of cucumber and wheat seeds with oil radish seeds led to an increase in the amount of MDA in 1.2

Table – Comparison of the content of MDA (nmol / g) in the germinated seeds of cucumber and common wheat under various conditions of interaction with radish oilseed ( $M \pm m$ )

Experimental groups	Sowing cucumber	Common wheat
Control	0,18±0,008 <sup>3</sup>	0,11±0,004 <sup>3</sup>

Oil radish extract treatment	0,25±0,006 <sup>1,3</sup>	0,14±0,002 <sup>1,3</sup>
Co-germination with oil radish seeds	0,15±0,002 <sup>1,2,3</sup>	0,09±0,004 <sup>1,2,3</sup>

Note. The results are statistically significant,  $p < 0.05$ : <sup>1</sup> – compared with the control; <sup>2</sup> – between germination with the extract and joint germination, <sup>3</sup> – between the cucumber-wheat groups

**Conclusion.** In wheat seeds during germination on the 3rd day, the lipids of the cell membranes experienced a lower level of peroxidation than in the seeds of cucumbers. The allelopathic effect of oil radish in a laboratory experiment under these conditions turned out to be negative, and in the case of joint germination of seeds with oil radish seeds, the damage to the cell membranes was less than in the case of presowing treatment with its green mass extract, approximately 1,5 times.

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## THE STRUCTURE OF ORNITHOCOMPLEXES IN THE PINE FOREST REGENERATING CLEARCUTS WITHIN THE VITEBSK REGION

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The transformation of pine forest ornithocomplexes during secondary succession occurs due to changes in the species, age composition and life forms of plant communities of this forest type. The appearance of clearcut determines the spatial redistribution of the birds of various ecological groups: dendrophilous birds in the first years after tree felling are replaced by species of open spaces. The result of a change in plant associations is a phased change of bird communities as the clearcut overgrows. The species that first inhabit open felling areas are gradually crowded out by the inhabitants of shrubs, some of which later go into the undergrowth layer of young pine plantations [2].



The purpose of the research is to explain the formation of ornithocomplexes structure in the pine forest regenerating clearcuts within the Vitebsk region.

**Material and methods.** Studies were conducted in 2018–2019 years on freshly clearcuts and artificial pine plantations of mossy, heather, heather-mossy and ferny types at the age of 1, 5, 10 and 15 years in the Vitebsk region during the period of mass nesting (May-June) of dendrophilous bird species with the use of generally accepted methods for quantifying birds [1].

**Findings and their discussion.** Annual clearcuts artificially planted with pine are areas overgrown mainly by grassy vegetation (wild strawberry, lily-of-the-valley, evergreen blueberry, bushgrass, common dandelion, red clover, tormentil, milfoil etc.). The avifauna is represented by 15 species of birds: there are nesting species of open spaces (wood lark, sky lark, yellow bunting) and dendrophilous birds (great tit, common redstart, tree pipit, robin, hobby falcon) from ripe pine plantations bordering the felling which use clearcuts as feeding areas.

Over the next 5 years, the transformation of phytocenoses leads to the formation of shrubs, undergrowth of warty birch and pine. The formation of birds community is associated with meadow and shrub vegetation (garden warbler, red-backed shrike, greenfinch, common rosefinch etc.) and the number of species increases to 22.

By 10-15 years, the avifauna of the studied clearcuts is characterized by the greatest species diversity (29). The resumption of pine and the growth of birch leads to the massive population of territories with dendrophilous species (common chaffinch, great tit, cuckoo, mistle-thrush, oriole, spotted flycatcher) and crowding out species of the open stations.

All birds that participated in the change of ornithocomplexes belong to 5 faunal assemblages. There are 16 species of the European broad-leaved forests (51,61%), 11 species of the forest palearctic fauna (35,48%), 2 taiga species (6,45%), 1 Manchurian species (3,23%) and 1 species of the south Palearctic mountains (3,23%).

Species recorded on overgrowing clearcuts belong to 8 orders (*passeriformes*, *columbiformes*, *aprimulgiformes*, *anseriformes*, *cuculiformes*, *piciformes*, *apodiformes*, *falconiformes*) and 19 families (*paridae*, *corvidae*, *columbidae*, *turdidae*, *sylvidae*, *cuculidae*, *fringillidae*, *picidae*, *oriolidae*, *anatidae*, *falconidae*, *prunellidae*, *alaudidae*, *motacillidae*, *emberizidae*, *troglodytidae*, *regulidae*, *muscicapidae*, *apodidae*).

**Conclusion.** In total, 31 bird species were registered in the change of ornithocomplexes witch belong to 4 ecological groups and 5 faunal assemblages. As pine clearcuts overgrows, the number of bird species increases from 15 at the annual to 22 at the five year old; by the age of 10-15, the avifauna has 29 species, while the species of open stations are gradually replaced by dendrophilous ones.



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## **SPECIALLY PROTECTED NATURAL AREAS OF VOLOZHIN DISTRICT**

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The preservation of landscapes varieties is becoming the theme for serious researches of the scientists all over the world and the problem is to be solved on the highest government level. The Republic of Belarus is implementing a programme on the extension of nature-conservative lands to ensure natural resources for present and future generations. The interested parties in the republic are fulfilling a systematic work on cataloging of the existing natural monuments and on identifying the new ones.

The scientific merit of the work is in the fact that the natural monuments are an integral part of a landscape that creates the uniqueness of it. The possibility to satisfy the conditions of preservation of the specially protected natural areas in Volozhin district are offered to meet the requirements of a touristic area and thus to attract tourists to the region and increase the commercial efficiency of it.

The aim of the presented work is to define the principles of the usage of specially protected natural areas as a natural resource of Volozhin district for the further economic development.

**Material and methods.** The systems approach is the main scientific method used for the presented work. Also here has been done the analysis of the catalogue developed in the Academy of Science of the Republic of Belarus and some general conclusions have been drawn.

**Findings and their discussion.** It is necessary to understand that specially protected natural areas are an important resource and an integral part of the environment. The nature protection activities help to preserve the landscapes in their primeval shapes and thus they maintain biodiversity. Some of the specially protected natural areas can help to survey the past of the studied area. Subsequently the findings will allow to forecast the further development of the region. Moreover folk epic of peoples inhabited this area, including various legends and superstitions, is attributed to some of the specially protected natural

areas and natural monuments. That is the reason for regarding the specially protected natural areas as touristic sights that in perspective will attract tourists in the region and can favour the economic growth.

According to the environmental regulations of the Republic of Belarus there are several categories of the specially protected natural areas. They are the following:

- Wildlife preserve is a specially protected natural area that has been established for protection and recovery (reproduction) of valuable natural complexes and objects.

- Wildlife area is a specially protected natural area that has been established to maintain the natural course of environmental processes, to preserve them in the natural state and to study the valuable natural complexes and objects.

- National park is a specially protected natural area that has been established for recovery (reproduction) of valuable natural complexes and objects, their rational (sustainable) usage in the course of nature-conservative, scientific, educational, touristic and recreational activities.

- Natural monument is a specially protected natural area that has been established for the preservation of valuable natural complexes and objects [1].

Besides the above-listed definitions Article 16 of the Regulations on Specially Protected Natural Areas prescribes the criteria for identifying specially protected natural areas along with the regulations on what category each area should be reckoned in [2].

There are thirty specially protected natural areas in Volozhin district, they include 18 natural monuments of Republican significance, 8 natural monuments of local significance, a wildlife preserve of Republican significance and 3 wildlife preserves of local significance.

The influence of early Pleistocene glaciations – the Sozh glaciation, the Dnieper glaciation and the Lakeside glaciation – is the main reason for formation of the relief of the region along with geological natural monuments. Also the specially protected landscape natural areas were formed under the impact of glaciations, but in this case it is possible to speak about man's impact on the environment. Man's impact was the reason for the preservation of Naliboky Pushcha due to the uselessness of the land for agriculture; the outwash in the area is characterized by low fertility. As the soil in the area remains the same, the touristic resource of a vast wild forest can become one of the most profitable and is worth developing further.

The rebirth of ancient legends related to the preserved natural monuments will boost the development of attractiveness and awareness. For example, conglomerate 'Saint Detritus Buzunovskiy', a geological natural monument of Republican significance, is attributed to several local legends. Perhaps here used to be a pagan shrine where our ancestors mounted idols. Traditionally folk epic pays special attention to springs. On the territory of Volozhin district there are

two springs: the Volozhin spring and the Rakov spring. Both springs are the natural monuments of local significance, both are situated within the boundaries of towns of Volozhin and Rakov and both are developed and included into churches' complexes. The water is drinkable.

**Conclusions.** Only three above-mentioned samples demonstrate that the resource of Volozhin district is diverse and even ready to use as a tourists' attraction. Touristic potential should be being developed in the Republic of Belarus as our country can attract a sophisticated tourist by the diversity of the wildlife. Also it is obvious that the specially protected natural areas of Volozhin district can become sights of interest provided proper activities.

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## **MODELING THE INFLUENCE OF PHENOL ON INDICATORS OF NITROGEN METABOLISM IN PULMONARY FRESHWATER MOLLUSKS**

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The development of water transport, the growth of industrial and household wastewater, lead to the pollution of water bodies. All this represents a great threat for hydrobionts living in water bodies with a high level of anthropogenic load [1].

The state of the environment and its changes can be judged by the reaction of living organisms and a change in their metabolism. To assess the potential hazard of toxicants for the exchange of substances of hydrobionts, a bioindication is used. Hydrobionts as indicators of living conditions are convenient for studying the state of aquatic ecosystems and their subsequent changes during anthropogenic exposure.

Phenols are one of the most widespread pollutants entering the waters of the enterprise. The discharge of phenolic compounds into water sharply worsens their general sanitary condition and influences living organisms not only by their toxicity, but also by a significant change in the amount of nutrients, O<sub>2</sub> and CO<sub>2</sub> [2].

The purpose of the work is to study the effect of phenol in various concentrations on the content of urea and uric acid in the hemolymph of pulmonary freshwater mollusks.

**Material and methods.** Experiments were performed on 270 gastropod mollusks of 2 species: 135 specimen of *Lymnaea stagnalis* (common antler) and 135 specimen of *Planorbarius corneus* (horned cattle). Mollusks gathered in September-October 2018 in the Vitba River.

Before the experiment, for acclimatization, the mollusks were kept in tanks with hydrated water for 2 days, the density of mollusk planting was 3 ind./l, and the water temperature was 20-22 °C, pH 7,2-7,7. Every day, 1/3 of its volume has been replaced. Animals were fed leaves of green lettuce.

To model the pollution of water with phenolic compounds, toxicological experiments were carried out using phenol. In the experiments, phenol was used at concentrations of 50, 100, and 150 mg / l. Phenol solutions were prepared by dissolving the weighed portion in water. The duration of the experiment is 48 hours. The control was reserved by the persons kept in a stationary hydrated water.

For the study, hemolymph of mollusks was used. The hemolymph was obtained by irritating the leg with the light needle of its entomological pin. This stimulates the reflexion of drawing the legs into the rakine, as a result of which a hemolymph from the mantle cavity is isolated externally through the hematal pore.

The determination of uric acid and urea was carried out using sets of reagents NTPK "Analysis X" [3].

**Findings and their discussion.** Under the influence of phenol with a concentration of 50 mg/l, an increase in the concentration of urea in the hemolymph of *Lymnaea stagnalis* and *Planorbarius corneus* is not fixed, with the action of phenol with a concentration of 100 mg / l and the coils at a concentration of 150 mg increases in urea at a concentration of 150 mg *Lymnaea stagnalis* urea level is increased 1,2 times, and *Planorbarius corneus* 1,3 times compared with the control (table 1).

Table 1 – Effect of phenol on urea content in hemolymph *Lymnaea stagnalis* and *Planorbarius corneus* ( $M \pm m$ )

Group	<i>Lymnaea stagnalis</i>	<i>Planorbarius corneus</i>
Control, (n = 9)	6,47 ± 0,18	6,60±0,04
Phenol, 50 mg / l, (n = 9)	6,76 ± 0,07	7,27±0,06 <sup>1</sup>
Phenol, 100 mg / l, (n = 9)	7,41 ± 0,08 <sup>1</sup>	7,88 ±0,11 <sup>1</sup>
Phenol, 150 mg / l, (n = 9)	7,83 ± 0,11 <sup>1</sup>	8,44±0,12 <sup>1</sup>

Note: <sup>1</sup>p < 0,05 compared to the control

When phenol is exposed to a concentration of 50 mg / l, uric acid content is increased 3 times in the hemolymph *Lymnaea stagnalis*, and y *Planorbarius corneus* is 1.7 times higher, when phenol is exposed to a concentration of 100 mg / liter, 3 L. yagn 3 times, and y Pl. *corneus* 2.1 times, and when phenol is exposed to a concentration of 150 mg / l y L. *stagnalis*, the concentration of uric

acid increases 3.5 times, and y Pl. corneus 2.2 times compared with the control (table 2).

Таблица 2 – Влияние фенола на содержание мочевой кислоты в гемолимфе *Lymnaea stagnalis* и *Planorbarius corneus* ( $M \pm m$ )

Group	<i>Lymnaea stagnalis</i>	<i>Planorbarius corneus</i>
Control, (n = 9)	44,81 ± 2,061	82,56 ± 1,58
Phenol, 50 mg / l, (n = 9)	134,22 ± 3,037 <sup>1</sup>	138,33 ± 3,568 <sup>1</sup>
Phenol, 100 mg / l, (n = 9)	149,48 ± 2,363 <sup>1</sup>	169,43 ± 2,009 <sup>1</sup>
Phenol, 150 mg / l, (n = 9)	158,67 ± 2,489 <sup>1</sup>	181,22 ± 3,348 <sup>1</sup>

Note: <sup>1</sup> p < 0,05 compared to the control

With the action of phenol at a concentration of 150 mg / l, the level of uric acid in the hemolymph of the users increases by 1.2 times, and the coils when the action of phenol in the concentrations of 100 and 150 mg / l is 1.2 and 1.3 times higher group phenol, 50 mg / l. Under the influence of phenol with a concentration of 150 mg / l, a significant increase in the level of uric acid in the hemolymph of two species of gastropod hydrobionts compared with group phenol, 100 mg / l has not been established (table 3.).

**Conclusion.** Thus, using the experimental action of phenol solutions on mollusks, it was established that the fall of phenol in water causes changes in the nitrogen metabolism in mollusk tissues. The horn coil appeared to be more resistant to the toxic effect of phenol.

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## **ABOUT DISTRIBUTION OF ALIEN SPECIES OF THE GENUS *OTI-ORHYNCHUS* GERMAR, 1822 (COLEOPTERA, CURCULIONIDAE: ENTIMINAE) IN VITEBSK AND ITS VICINITIES**

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Invasions of alien species – representatives of various groups of live organisms – out of limits of their primary areas have global character. Invasive species often act as biological pollutants and can threaten environmental safety of the country. Their justification and further distribution often involves undesirable global ecological, economic, and sometimes, social consequences.



(<http://www.sevin.ru/invasive/index.html>). In the last decades in connection with strengthening of economic activity of the person and climate change a number of the species uncharacteristic for fauna of Belarus got on its territory. Many of these species cause essential economic, ecological and social damage. Therefore, it became necessary to create a republican list of invasive animal species, some of which can be extremely dangerous [2].

Alien beetles are the most mass group of alien arthropods of Europe. In recent years expansion of a number of species of beetles weevils to new regions is observed [1, 3-5]. From this flowed the following tasks: 1. To specify distribution of a weevil of an alien species of *Otiorhynchus (Proremus) smreczynskii* Cmoluch, 1968 in the region. 2. To reveal and study distribution of a weevil of an alien species of *Otiorhynchus (Proremus) rotundus* (Marseul, 1872) in the region. 3. To try to find new species of alien weevils of the genus of *Otiorhynchus* on a lilac and to lay the foundation for monitoring further observations of injuriousness of these species.

The first step for development of measure to reduce the potential economic damage in Belarus is to detect these new wreckers. Also we started researches on studying and stimulation of reproduction of local predators which can limit the number of these invasive species were begun and methods of physical processing of the soil at roots of fodder plants proceeding from biology of species of invaders beetles are approved.

The purpose of our work – specification of specific structure of alien species of weevils of the genus of *Otiorhynchus* Germar, 1822 in the north of Belarus.

**Material and methods.** The material was collected using the standard entomological method – Barber's traps with modifications. Were used for account in a radical zone geological a sieve through which the laying was sifted in the afternoon. The basic duties became a cutting on the lower part of branches of fodder plants (lilac (*Syringa*), privet (*Ligustrum*) and snowberry (*Symphoricarpos*)) in evening and night time when imago of weevils leave for active food. Moreover the individual inspection of foliage and branches of bushes was performed at that time.

For identification of these species determinants and private revisions of this complex of species were used [1, 4]. Constant spermatheca and spicula preparation in the Canadian balm – for reliable determination of these species using the standard methods were made. All species are confirmed by the leading expert on weevils of Russia I.A. Zabaluev (Russia, Samara-Moscow) for what the author expresses him gratitude.

**Findings and their discussion.** As a result of research more 3550 specimens (among them: *Otiorhynchus rotundus* – 1200 specimens [6], *Otiorhynchus smreczynskii* – 2350 specimens) in work is confirmed presence of *Ot. rotundus* are also given in the territory Republic of Belarus new data on distribution of 3 alien species of weevils of *Ot. rotundus*, *Ot. smreczynskii* and *Ot. albidus*. Weevil of *Ot. smreczynskii* is for the first time found in the metropolitan area of



Vitebsk in 2001 [6], and species of *Ot. rotundus* in 2005 [6]. In the north of the republic of a find of joint dwelling of *Ot. rotundus* with *Ot. smreczynskii* are quite rare and distribution of these species of weevils in the Vitebsk attracts interest. In a left-bank part of the city and suburbs only *Ot. smreczynskii* is noted. And only in the fall of this year it was found on a small area of *Ot. rotundus*. In a right-bank part both views are noted, and clear split of their territories of dwelling by railways tracks and railway station Vitebsk is visible. The revealed territory of dwelling of *Ot. rotundus* is much less and more compactly, than at *Ot. smreczynskii*. *Ot. rotundus* is noted by us together with *Otiorhynchus albidus*. Species *Ot. rotundus* is found in 2 regions: Vitebsk, Gomel; *Ot. smreczynskii* in 4 regions: Vitebsk, Grodno, Minsk, Mogilev and also in the adjacent region of Russia – the Bryansk region [7].

**Conclusion.** The weevil of *Otiorhynchus (Proremus) smreczynskii* Cmoluch, 1968 eats generally leaves of lilacs (*S. vulgaris*, *S. josikaea*) and privets (*Ligustrum vulgare*). To a lesser extent damages also other wood and shrubby plants. Imago eat in evening and night time, and hide in a sheet laying or a top soil in the afternoon. In the north of the republic of a find of joint dwelling of *Ot. rotundus* with *Ot. smreczynskii* are quite rare. In a left-bank part of Vitebsk and suburbs only *Ot. smreczynskii* is noted. And only in the autumn of this year it was found on a small area of *Ot. rotundus*. In a right-bank part both views are noted, and clear split of their territories of dwelling by railway tracks and railway station Vitebsk is visible. A weevil of *Otiorhynchus (Proremus) rotundus* (Marseul, 1872) imago eat on leaves of lilac (*Syringa*), privet (*Ligustrum*) and snowberry (*Symphoricarpos*). Beetles are active at night, eat away sheet kidneys and leaves, leaving at the edges characteristic cuts. In May and June of a female lay eggs to the soil near roots. Larvae eat at first on small backs, and then pass to the main root. Imago are active till late autumn. The revealed territory of dwelling of *Ot. rotundus* is much less and more compactly, than at *Ot. smreczynskii*. *Ot. rotundus* is noted by us together with *Otiorhynchus albidus*, a new species for fauna of Belarus.

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## THE AFTER-EFFECTS OF THE DESTRUCTIVE HUMAN ACTIVITIES ON THE AMAZON RAINFOREST EXAMPLE

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The actuality of the work lies in the fact that in our wide and emerging world the population is increasing more and more rapidly and this aspect is connected directly with the topic of my research. Amazon rainforest is the most striking example of human actions being disastrous towards our planet. The link between the health of the Amazon and the health of the planet is obvious. The rain forests help stabilize local and global climate [1]. Deforestation may release significant amounts of this carbon, which could have catastrophic consequences around the world [3].

Nevertheless, the issue of my research concerns not only Amazon rainforest in particular, but also the ecological situation in the world in general.

The aim of the research is to show the impact of people's actions on our planet and raise awareness among human beings.

**Material and methods.** The Amazon rainforest also known in English as Amazonia or the Amazon Jungle is a moist broadleaf forest in the Amazon biome that covers most of the Amazon basin of South America. More than 30 million people, including 350 indigenous and ethnic groups, live in the Amazon and depend on nature for agriculture, clothing and traditional medicines [2].

The materials used during my research work are scientific magazines and books, such as "National Geographic", "BBC knowledge" and others. The

methods of the research are theoretical, historical, and empirical. The ways of the research: analysis, synthesis, analogy. The methods of my research are analysis, observations, surveys.

**Findings and their discussion.** During the work on this research, my main task was to raise awareness of ecological issues among as many people as possible and to find out their attitude towards such a problem. What's more, I firmly believe that youthful minds are easier to involve and they are more likely to keep their ears open. Therefore, that was the main reason for me to conduct an event dedicated to ecological issues with schoolchildren. I tried to keep this lesson non-trivial and creative in order those to stay excited on this topic. My aim was to attract children's attention and influence their opinion on what our actions are capable of. First, I told them about Amazon in general: introduced its biodiversity, peoples, and primary problems. The second part of the lesson was dedicated to conservation of the environment. We spoke about ways of overcoming climate change, deforestation, air pollution etc. I showed children the range of videos on the topic in order to hold their attention. They were very active, excited and participated with pleasure. Moreover, they have completed a few tasks concerning the ecology issue. At last, I believe to have put the right thoughts in their heads, and if these children thought before throwing trash where they step, my goals would have been achieved.

The topic of my research is «The after-effects of the destructive human activities on the Amazon rainforest example». I have created a questionnaire to study whether people are informed about such issue in general. The questionnaire was conducted in the internet(100), in instagram and among students and teachers of our college(66). In general, I asked 216 people, according to their answers I analyzed and summarized information.

The results of the internet survey have shown that the overwhelming majority of asked people know practically nothing of Amazon rainforest. Though, more than 80% are informed enough of ecological problems in the world. The third question shows us that only 6 people pollute the environment at the maximum levels. 91% of asked are ready to change their habits, and it is up to them.

The survey among the students and the teachers of our college has shown the following results: the average value to the question "How well are you aware of the Amazon rainforest?" is 2 among students and 1.6 among teachers. The awareness about ecological problems is on the level 3.8 among students and 3.2 among teachers. The students suppose they pollute the environment on the average of 2 points, teachers at 1.3. 97% of asked students are ready to change their habits in order to protect the environment, so as 99% of teachers.

The questionnaire in the Instagram has shown: the average point to the question "How well are you aware of the Amazon rainforest?" is 1.7, which is less of all. The awareness about ecological problems is on the level 3.4, which is not bad. My followers suppose they pollute the environment on the average of

2.2, and only 71% of them is ready to start changing their habits, whereas 29% do not.

Besides, the last question was “What ecological habits we can instill in younger generation?” The most spread answers were to throw trash in a bin, to give up using plastic bags and plastic in general, reuse, reduce and recycle.

Thus, summarizing the results of my poll. I came to conclusion that in general people are fully conversant with today’s ecological issues and are ready to contribute in the solutions. I hope that after being a part of my questionnaire those people will think over their lifestyle and bring some positive changes.

We may think that we have nothing to do with the Amazon rainforest, but it is not only about deforestation and climate change, it is about us and what kind of humans we are. After all, we have no other planet to move.

**Conclusion.** Therefore, with the help of this work I tried to show the impact of people’s actions and raise awareness among human beings. I hope the materials used have been helpful towards enlarging your knowledge about my topic.

We can win the biggest battles in the smallest moments. Whether it is making changes in your lifestyle or calling on world leaders to come together and act to protect nature, we all have a role to play in the fight for wildlife, people and our planet.

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## **MORBIDITY ANALYSIS IN THE PATHOLOGY OF THE DIGESTIVE SYSTEM AMONG CHILDREN IN THE VITEBSK REGION**

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Digestive system diseases represent a relevant medical and social problem worldwide. The lifestyle of modern people doesn’t allow to pay due attention to balanced diet, which leads to the fact that diseases of the digestive system are consistently among the most common in the morbidity pattern. The lack of a proper comprehensive approach to prevention and treatment of gastrointestinal tract organs pathology often leads to the chronicity of the disease, its recurrent course, and the emergence of complications, which adds significance to the issue.

The prevalence of the disease is influenced by many factors: non-compliance with the diet, bad food quality, neuropsychic overload, bad habits, unsatisfactory living conditions, environmental conditions, microclimate, etc.

Typical signs of gastrointestinal tract pathology are pain, heartburn, belching, bloating, nausea, vomiting, problems with stool. Less frequently there can be dysphagia, pathological impurities in the stool (mucus, blood, undigested food), bitterness in the mouth, etc. Everyone has encountered such problems throughout their life, however not everyone seeks for medical help, therefore, the actual prevalence of digestive system diseases is higher than the official statistics.

The aim is to study the prevalence of the digestive system pathology in the Vitebsk region.

**Material and methods.** Data of the National Statistical Committee of the Republic of Belarus, data of the Vitebsk Regional Center for Hygiene, Epidemiology and Public Health were used for the article. Analysis of the patients' reference to primary healthcare facilities was made.

**Findings and their discussion.** Reference to the ambulatory unit of the patients (up to 18 years old) with gastrointestinal tract complaints takes the second place in the frequency of occurrence after infectious diseases. This allows us to estimate the prevalence of pathology and appreciate the importance of a comprehensive approach in the treatment of the acute process, thus preventing the chronization and preventing the recurrence of the disease. The morbidity pattern of the digestive system disease is dominated by the pathology of the upper gastrointestinal tract: gastroesophageal reflux disease, gastritis, and gastric ulcer. These diagnoses are most common among adolescents. In children of the first years of life the most common pathology of the digestive system is dysbiosis and secondary lactase deficiency. Sexual differences in the incidence of disease are insignificant.

Digestive system diseases among the total disease incidence in children (0-14 years old) in 2014 comprised 25.2 per 1000 children, in 2018 it changed to 23.3 per 1000 children. The firstly established incidence of digestive system disease in children (0-14 years old) in 2014 was 1.01% of all diseases (the 7<sup>th</sup> place in primary morbidity pattern), and in 2018 it was 0.9% (which also results in the 7<sup>th</sup> place in primary morbidity pattern.) In adolescents (15-17 years old) the picture was the following: the total incidence in 2014 was 51.9 per 1000 adolescents, and in 2018 it was 54.5 per 1000 adolescents.

After the analysis of the total morbidity among different age groups of children for 2017 (according to the data of the Vitebsk Regional Center for Hygiene, Epidemiology and Public Health) the following results were obtained:

2017	1-4 y.o.	5-7 y.o.	10-14 y.o.	15-17 y.o.
Total morbidity	2095,9	1618,3	1625,7	1736,9
Digestive system diseases	7,7	19,8	34,8	59,6



Thus, a significant increase in the incidence rate of digestive system pathology corresponding to older age was found, which can be attributed to the influence of preschool and school environment factors. This demonstrates the multifactorial nature of the pathology.

Considering the structure of the primary disability of children, digestive system diseases amounted to 1.1% in 2014 (11<sup>th</sup> place among the causes of primary disability among children), and comprised 1.7% in 2019 (10<sup>th</sup> place).

Background indicators of digestive system pathology incidence during the period from 2008 to 2017 in the administrative territories of the Vitebsk region were in the range between 5.6 and 66.3. The average regional level of the background indicator is 20.8. The highest rates were recorded in the Tolochin district – 66.3, Dokshitsy district – 49.5, Verkhnedvinsk district – 56.5; the lowest rates in the Senno district – 5.6, Liozno district – 6.5.

Regarding the total disease incidence among the adults (over 18 y.o.) in the republic, in 2014 digestive system diseases were diagnosed in 83.1 per 1000 adults (6<sup>th</sup> place in the overall morbidity pattern), and 82.1 per 1000 adults in 2018 (also 6<sup>th</sup> place).

**Conclusion.** Thus, given the prevalence of digestive system diseases, due attention to this problem is required. Considering the fact that many chronic diseases begin to occur in childhood, the importance of timely detection, treatment and prevention of diseases from childhood becomes clear. The issue of preventing this type of disease is among of the most significant ones. And correctly provided care in the initial stages is one of the keys to preventing from the transition of an acute disease into a chronic one. A variety of factors affecting the occurrence and course of diseases of the digestive system requires a diversified approach to solving the problem. Improving the quality of nutrition, educational work in relation to food hygiene, creating a healthy lifestyle, improving living standards, reducing stress factors, amelioration of the environmental situation are issues that require constant monitoring and improvement.

## **USING PULMONARY FRESHWATER MOLLUSKS IN SCIENTIFIC RESEARCH WORK OF SCHOOLCHILDREN**

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There are currently a large number of studies on the effects of environmental factors on mollusks and the focus is on assessing survival, growth and behavioral responses [2, 4]. However, biochemical studies, related to metabolic changes in these test organisms are not enough.



The purpose of this study is to comparative analysis of metabolic parameters in the tissues of freshwater pulmonary mollusks, which differ in the mechanism of oxygen transport, under the influence of environmental factors.

**Material and methods.** Experiments to assess the influence of anthropogenic environmental factors on natural reservoirs were conducted out on 378 pulmonary freshwater mollusks of two species: 189 individuals of *Lymnaea stagnalis* and 189 individuals of *Planorbarius corneus*. Mollusks were collected in autumn (September-October) and spring (April-May) 2017-2018 in the reservoirs of four districts of Vitebsk region and three districts of Gomel region. Each research subgroup contained 9 mollusks.

Determination of uric acid in hemolymph was performed by standard biochemical reactions using the reagent kits NTPK “Analysis X” [3]. For quantitative determination of lipid peroxidation products (TBA-positive substances (TBA-PV), a test with 2-thiobarbituric acid was used [5]. Catalase activity (1.11.1.6) was determined by reaction with ammonium molybdate [1].

Statistical processing was performed using Student's t-test.

**Findings and their discussion.** It was found that seasonal changes in environmental conditions affect the antioxidant system of pulmonary freshwater mollusks, lead to activation of lipid peroxidation processes in the spring and autumn periods of the year, which is proved by an increase in the content of TBK-PV in all experimental groups. The content of TBA-positive substances in hepatopancreas reflects the general condition of mollusks, as it shows the level of free radical oxidation through the final product-malondialdehyde. It was found that the content of TBK-PV in the hepatopancreas *P. corneus* and *L. stagnalis* from the Gomel region is higher than in the Vitebsk region on average 2-2.5 times in the spring period of collection. Compared with the spring collection period in the *Planorbarius corneus*, the content of TBK- PV in the Vitebsk, Shumilin and Mozyr regions was reduced by 1.2 times in the autumn period. Compared with the spring collection period in the *Lymnaea stagnalis*, the content of TBK- PV in the Vitebsk and Shumilin regions was reduced by 1.3 times in the autumn period. There were no statistically significant differences in the content of reduced glutathione in mollusks depending on the type of oxygen transport in all the studied areas. The content of TBA-PV in *P. corneus* reaches the highest levels in the Rogachevsky district of the Gomel region in the spring, in the Rogachevsky district of the Gomel region in the spring, the minimum values are recorded in the Dubrovensky district of the Vitebsk region. Since the temperature indices at the collection sites of mollusks were approximately the same, it can be concluded that such a difference in the content of TBA-PV indicates the peculiarities of the anthropogenic load and radiation background in the reservoirs of the Gomel region.

When studying the uric acid content in the hemolymph of the *P. corneus* and *L. stagnalis*, a pronounced increase a pronounced increase of uric acid from the autumn to the spring period was found. An increase in the concentration of uric

acid in hemolymph may also indicate the activation of the catabolism of nucleic acids and nucleotides due to the influence of adverse environmental conditions in the spring season. Compared with the autumn period, the uric acid content in the hemolymph of the *P. corneus* increased 1.5 times in the Vitebsk region, in Dubrovensky - 1.8 times, in Ushachsky - 1.4 times, in Shumilinsky - 1.9 times, in Rogachevsky - 1.2 times in the spring period. Compared with the autumn period, the uric acid content in the hemolymph of the *L. stagnalis* showed statistically significant differences in the Vitebsk region - 2.9 times, in Dubrovensky - 2.2 times, in Ushachsky - 1.4 times, in Shumilinsky - 2, 1 time, in Rogachevsky - 1.2 times in the spring period. In Gomel and Mozyr districts, the indicator varies insignificantly, therefore it does not have statistical significance. It can be assumed that the effect of seasonal and annual biorhythms is manifested through a change in the content of uric acid in the hemolymph of *L. stagnalis* and *P. corneus*. In the study of catalase activity in the hepatopancreas of *L. stagnalis* and *P. corneus*, a pronounced increase in catalase activity from the autumn to the spring harvest period was found. Compared with the autumn period, the activity of catalase in the hepatopancreas of the *P. corneus* increased 1.2 times in the Vitebsk region, 1.3 times in Rogachev district in the spring period. Compared with the autumn period, the activity of catalase in the hepatopancreas of the *L. stagnalis* increased 2.5 times in the Mozyr district, 1.7 times in Rogachev district in the spring period. No statistically significant differences between the two species of mollusks were recorded in the remaining study areas. At the interspecific level, catalase activity in *Planorbarius corneus* is lower than in *Lymnaea stagnalis*. It can be assumed that the objective effect of seasonal and annual biorhythms is manifested through a change in the uric acid content and catalase activity in the hemolymph of *L. stagnalis* and *P. corneus*.

**Conclusion.** The obtained results confirm the possibility the use of marker indicators of the metabolism of pulmonary freshwater mollusks, differing in the type of oxygen transport, to assess the effects of adverse factors on natural ecosystems.

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## **BIOCHEMICAL INDICATORS OF PULMONARY FRESHWATER MUSCLUS OF THE VITBA RIVER IN THE VITEBSK DISTRICT**

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Vitba is a river in the Vitebsk region, the left tributary of the Zapadnaya Dvina river. Length – 33 km. The river originates from the village of Poddubye within the Vitebsk Upland. The catchment area is 275 km<sup>2</sup>. The catchment on the northwestern slopes of the Vitebsk Upland. At the border of the city, the river is 4.8 km long. The riverbed is winding, with a width of 20-30 m, in the lower reaches - up to 60 m. Recreation areas have been created on the banks and islands of the river, which include the Frunze Park and a recreation area on the embankment of the Vitba River. On the right bank is the Botanical Garden. The riverbanks are connected by car and pedestrian bridges. The Vitba River has pronounced signs of anthropogenic impact. The presence of recreation areas on its shores exacerbates this effect. On the banks and in the water of the river you can observe a lot of garbage. Black silt was found at the bottom of the river, which indicates a large amount of organic substances in the water. The water has a yellowish tint and a slight swamp smell, which are the initial signs of eutrophication of the reservoir.

The purpose of the study was to assess the ecological state of the Vitba River in the Vitebsk region by indicators of carbohydrate, nitrogen metabolism and the state of the antioxidant system of pulmonary freshwater mollusks.

**Material and methods.** The experiments were performed on 108 pulmonary freshwater mollusks, divided into two groups: 54 individuals of *Lymnaea stagnalis* and 54 individuals of *Planorbium corneum*. Mollusks gathered in spring (April-May), summer (July) and autumn (September-October) from Lake Sokorovskoye in the Beshenkovichi District. Hemolymph parameters were determined using the reagent kits NTPK “Analysis X”. The concentration of glucose in hemolymph was determined by the glucose oxidase method using Deacon Diazis kits. Determination of protein concentration (mg / g tissue) was performed according to the Lowry method. The content of DNA and RNA (mg / g of tissue) was determined by the method of Blober and Potter. Glycogen was determined by the Krisman method. The products of lipid peroxidation were determined (TBK-positive substances (TBK-PV), a test with 2-thiobarbituric acid was used. Catalase activity (1.11.1.6) was detected by reaction with ammonium molybdate. The amount of reduced glutathione was determined by the reaction of interaction of GSH with 5,5'-dithio-bis-2-nitrobenzoic acid [1]. Mathematical processing of the results was carried out by the methods of parametric and non-parametric statistics using the statistical software package Microsoft Excel 2003, STATISTICA 6.0.

**Findings and their discussion.** Mollusks from the Vitba river in the Vitebsk region are characterized by the following metabolic parameters (tables 1, 2).

Table 1 – Metabolism in hemolymph and hepatopancreas *Planorbarius corneus* from r. Vitba of Vitebsk region ( $M \pm m$ )

Indicator	Season of the year		
	Spring (n=9)	Summer (n=9)	Autumn (n=9)
Total protein (hemolymph) (mg /ml)	37,04±0,52 <sup>1</sup>	24,15±0,32	33,31±0,46 <sup>1</sup>
Total protein (hepatopancreas) (mg /g)	189±7,1 <sup>1,2</sup>	135±7,3	256±8,2 <sup>1</sup>
DNA (mg /g)	1,44±0,11 <sup>2</sup>	1,67±0,09	1,83±0,10 <sup>1</sup>
RNA (mg /g)	10,20±0,58 <sup>1,2</sup>	7,44±0,35	5,46±0,35 <sup>1</sup>
Urinary acid (mkmol /l)	137,99±5,23 <sup>1,2</sup>	119,56±3,45	92,14±2,02 <sup>1</sup>
Urea (mmol /l)	6,54±0,06 <sup>1</sup>	8,15±0,08	6,02±0,06 <sup>1</sup>
Glucose (mmol /l)	1,90±0,072 <sup>1,2</sup>	1,21±0,022	0,73±0,045 <sup>1</sup>
Glycogen (mg /g)	17,58±0,133 <sup>1,2</sup>	20,88±0,244	24,05±0,208 <sup>1</sup>
TBK-PV (mkmol /g)	8,04±0,55 <sup>1,2</sup>	4,36±0,25	5,24±0,33 <sup>1</sup>
Reduced Glutathione (mkmol /g)	11,43±0,15 <sup>1,2</sup>	7,22±0,08	8,94±0,07 <sup>1</sup>
Catalase (mkmol /min/g)	82,4±1,4 <sup>1,2</sup>	31,2±1,2	52,3±1,3 <sup>1</sup>

Note - <sup>1</sup>p <0.05 compared with the summer period of collection of mollusks; <sup>2</sup>p <0.05 compared with the autumn period of collection of mollusks.

The total protein content in the hepatopancreas of both species of mollusks in the spring and autumn periods of collection exceeded summer values by 1,4 and 1,9 times, respectively. The concentration of total protein in hemolymph *Pl. corneus* and *L. stagnalis* collected in summer was 1,4 times less than mollusks collected in spring and autumn. The urea content in the hemolymph of mollusks collected in summer exceeded the spring and autumn values by 1,2 times. The DNA level in the hepatopancreas of the horn and common pond reel increases from spring to autumn by 1,2 and 1,4 times, respectively. The glycogen content in the hepatopancreas of two species of mollusks increases from spring to autumn by 1,2 times. Compared to the autumn harvest season, *Pl. corneus* increased RNA content in the spring and summer periods of collection in 1,9 and 1,4 times, in *L. stagnalis* – 1,6 and 1,2 times (tables 1, 2).

 Table 2 – Metabolic parameters in hemolymph and hepatopancreas *Lymnaea stagnalis* from the r. Vitba of Vitebsk region ( $M \pm m$ )

Indicator	Season of the year		
	Spring (n=9)	Summer (n=9)	Autumn (n=9)
Total protein (hemolymph) (mg /ml)	14,03±0,22 <sup>1</sup>	11,35±0,16	15,87±0,25 <sup>1</sup>
Total protein (hepatopancreas) (mg /g)	271±7,6 <sup>1,2</sup>	186±8,8	323±21,7 <sup>1</sup>
DNA (mg /g)	1,74±0,04 <sup>1,2</sup>	2,09±0,04	2,49±0,03 <sup>1</sup>
RNA (mg /g)	9,07±0,42 <sup>1,2</sup>	7,06±0,16	5,74±0,24 <sup>1</sup>
Urinary acid (mkmol /l)	74,47±1,48 <sup>1,2</sup>	45,56±2,33	25,46±0,64 <sup>1</sup>
Urea (mmol /l)	5,93±0,17 <sup>1</sup>	7,14±0,11	6,05±0,03 <sup>1</sup>
Glucose (mmol /l)	0,93±0,006 <sup>1,2</sup>	0,60±0,035	0,41±0,037 <sup>1</sup>
Glycogen (mg /g)	23,11±0,174 <sup>2</sup>	26,21±0,182	27,42±0,612
TBK-PV (mkmol /g)	9,32±0,47 <sup>1,2</sup>	3,56±0,24	5,18±0,26 <sup>1</sup>
Reduced Glutathione (mkmol /g)	11,64±0,13 <sup>1,2</sup>	8,04±0,05	9,12±0,08 <sup>1</sup>
Catalase (mkmol / min /g)	88,4±2,3 <sup>1,2</sup>	41,4±1,3	56,6±2,6 <sup>1</sup>

Note - <sup>1</sup>p <0.05 compared with the summer period of collection of mollusks; <sup>2</sup>p <0.05 compared with the autumn period of collection of mollusks.

The concentration of uric acid is increased in the spring and summer periods of collection at the ordinary coil by 1,2 and 1,5 times, respectively, at the common pond - by 2,9 and 1,6 times compared with the autumn collection period. Compared with the spring and summer periods of collection, two species of mollusks reduced the glucose content in the autumn period of collection by 2,3 and 1,6 times, respectively. Pl. corneus increased the content of TBA-PV and reduced glutathione in hepatopancreas in the autumn and spring periods of collection by 1.6 and 1,2 times, respectively, in L. stagnalis 2,6 and 1,5 times TBA-PV and 1,4 times reduced glutathione compared to the summer harvest. Catalase activity compared to the summer harvest at Pl. corneus increased by 2,6 and 1,7 times, in L. stagnalis – by 2,1 and 1,4 in the spring and autumn periods of collection (tables 1, 2).

**Conclusion.** The data on the metabolism of light freshwater mollusks are related to the environmental data of the Vitebsk region and its coastal zones. Strong anthropogenic load negatively affects the metabolism of mollusks, activates oxidative stress in mollusks. It is about rivers from a river and a river.

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## **THE INFLUENCE OF ANTIBIOTICS CIPROFLOXACIN ON THE CONTENT OF MALONDIALDEHYDE IN IN A HEPATOPANCREAS *LYMNAEA STAGNALIS***

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The study of changing biochemical values and molluscs in realtime has a significant meaning for the ecological monitoring. Considering that molluscs are susceptible to the smallest changes occurring in the water ecosystems, they turn out to be the most suitable objects to study and conduct research on. Observing them allows to ensure a high-quality and timely implementation of cleaning measures, assessing the impact of antropogenic factors such as threats to the environment and preventing human diseases. Medical preparations affect the environment negatively. Thus, antibiotics contribute to the development of pathogens resistant to them. One of the most significant environmental factors is the interference into aquatic ecosystems of various toxicants, which can negatively affect the life of organisms. The first to respond to changing environmental factors is the antioxidant system. Its key indicator is the content of malondialdehyde (MDA).



The aim of the study – of this study is to determine the content of small dialdehyde in the liver of a common pond by means of an antibiotic ciprofloxacin.

**Material and methods.** A representative of pulmonary mollusks, the common pond (*Lymnaea stagnalis*), was studied in the work. The molluscs were collected in the River Vitba in Vitebsk, then subjected to a 15-day acclimatization, planting density of 3 copies per liter, water temperature – 20–22°C, pH 7,2–7,7. One-third of the water has been replaced every day. The animals were fed fresh dandelion leaves or green salad. To simulate the poisoning of molluscs with the antibiotic "Ciprofloxacin", they were kept in water for 48 hours with a dissolved preparation. The control was individuals contained in the settled tap water.. Hepatopancreas were used for this research, which were taken after the shell as been crushed.

The definition of the contents of the IDA was as follows: the homogenat hepatopancreas has been prepared in a cold buffer solution KCl (1:9). Samples were heated for 20 minutes in a boiling water bath, then cooled under running water and centrifugated for 10 minutes at 1,500 rpm. The malondialdehyde content was measured by the intensity of the developed coloration by the reaction with thiobarbituric acid (TBA) on the spectrophotometer at wavelength of 532 nm ( $\epsilon = 1.56 \cdot 10^5 \text{ M}^{-1} \text{ cm}^{-1}$ ). The statistical processing was carried out using the Student's t-criterion.

**Findings and their discussion.** All living organisms showcase different reactions to environmental changes. The formation of protective effects during adaptation is provided by the activation of the genetic apparatus, changes in cell metabolism, as well as changes in the functioning of almost all major systems of the body. Any strong environmental impacts cause a standard stress response. In the short-term action of moderate-intensity stresses, the functioning of the organs and the mobilization of the body occur.

Though, with an intense and prolonged stress reaction in cells, there is an activation of the process of free-radical oxidation, intracellular calcium overload, suppression of energy products, reduction of protein synthesis and denaturation of protein structures. This has a damaging effect on organs and tissues, and, thus, the stress reaction from the adaptation link turns into the pathogenesis link. Stress-limiting systems prevent the activation of stress systems and the implementation of damaging effects. One possible component of the rapid response to stress is the activation of lipid peroxidation. The products of lipid peroxidation are: MDA, diene conjugants, hydroperoxides. The results of the antibiotic ciprofloxacin are shown in the table.

Table – Effect of an antibiotic ciprofloxacin on the content of small dialdehyde (nmol/g) in hepatopancreas\_\_\_\_\_

Object	Control	Antibiotic
<i>L. stagnalis</i>	0,097±0,014	0,203±0,038 <sup>1</sup>

Note: <sup>1</sup>p<0,05 compared to control



The table shows that when the antibiotic was added to the water, which contained mollusks, the content of raspberry dialdehyde in hepatopancreas increased 2,1 times compared to the control group.

**Conclusion.** The analysis of the results shows that the studied biochemical indicator in pulmonary mollusks *L. stagnalis* has changed in response to the effects of the antibiotic. Initial data from previous studies and responses to the action of a drug, aquatic mollusks can be used for preclinical trials of pharmacological substances, drugs, including antibiotics.

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## **PROBLEM OF PRESERVING THE MODERN CLIMATE OF THE EARTH**

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Climate change poses an immediate threat to the population. The temperature of the air increases every day, and human intervention affects the atmosphere more than the geophysical or biospheric, which changed the trajectory of the Earth in the past. But many factors affecting climate change have not yet been studied.

Most experts, studying the complexity of the Earth's climate system, associate an increase in global temperature and future climate changes with an increase in CO<sub>2</sub> in the air.

But modern standards, the amount of CO<sub>2</sub> emissions has almost doubled.

The goal of the work is to consider the problem of saving the modern climate of the Earth.

**Material and methods.** During the research there were used materials of statistical publications, Internet resources, The Fifth IPCC Report convened by the Science Advisory Group of the UN Climate Action Summit.

To achieve this goal we used next methods: descriptive, statistical, mathematical.

**Findings and their discussion.** To prevent climate change, the world must be transformed into complex problems. At present, mankind is moving to lower quantitative indicators of greenhouse gases in the atmosphere, and some, on the contrary, are dealing with the situation. The solution to this problem requires rapid changes, especially in the coming decades.

Examples of actions include switching to the production of low- or zero-emission electric energy, for example, renewable energy sources; change in the food system, for example, the rejection of animal products; electrification of transport and development of green infrastructure, such as building green roofs, improving energy efficiency through thoughtful urban planning, which will change the layout of many cities. This means that all relevant companies, industries and stakeholders will be forced to participate in order to increase support and the chances of successful implementation.

To prevent climate change, in all regions, certain actions are required, and it is also necessary to quickly escalate the current scale and pace of change, especially in the coming decades.

Mitigation within each system, which together can prevent climate degradation, requires careful consideration of many factors. These factors include:

- the availability of sufficient natural systems and resources to support various transition options (known as environmental feasibility);
- the extent to which the required technologies are developed and available (known as technological feasibility);
- Strengthening and implementing a global response, economic conditions and consequences (known as economic feasibility);
- governance, institutional capacity and political support (known as institutional feasibility).

Humanity effect climate change since 20<sup>th</sup> century, while global average surface temperature warmed by 0.85°C between 1880 and 2012, as reported in the IPCC Fifth Assessment Report. Many regions of the world have already greater regional-scale warming, with 20–40% of the global population (depending on the temperature data set used) having experienced over 1.5°C of warming in at least one season.

The average global temperature for 2015– 2019 is on track to be the warmest of any equivalent period on record. The 2015-2019 five-year average temperatures were the highest on record for large areas of the United States, including Alaska, eastern parts of South America, most of Europe and the Middle East, northern Eurasia, Australia, and areas of Africa south of the Sahara. The hottest month on record globally was July 2019 [1].

The main cause of climate change is anthropogenic impact: the development of civilization, animal husbandry, the use of hazardous chemicals, etc. The most destructive for all living things was the development of civilization [2].

Emissions of CH<sub>4</sub> and N<sub>2</sub>O in agriculture, in addition to CO<sub>2</sub>, play an important role in which CO<sub>2</sub> is reduced to a net zero level on a global scale. Methane emissions are reduced through improved agricultural management (e.g. improving the quality of livestock feeding, the quality use water for growing rice) as well as dietary shifts away from emissions-intensive livestock products.

It is important to emphasize appropriate management approaches, since a high level of bioenergy production can lead to an increase in N<sub>2</sub>O. Finally, several mitigation measures that could effect on this problem considered in the current integrated pathway literature. Such measures (like plant-based and synthetic proteins, methane inhibitors and vaccines in livestock, alternate wetting and drying in paddy rice, or nitrification inhibitors) are very diverse and differ in their development or deployment stages. Their potential was clearly not evaluated as it should.

The most significant factors of anthropogenic impact on climate are the development of energy, industry, agriculture, namely:

- atmospheric gas composition changes because of emissions of fossil fuel products - radiation-active small gas components such as carbon dioxide (CO<sub>2</sub>) and carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), methane (CH<sub>4</sub>), nitrogen oxides (NO<sub>2</sub>, NO, N<sub>2</sub>O) and others;

- a change in the aerosol composition of the atmosphere because of the ingress of soot, combustion products in the form of sulfur compounds, other particles as a result of exposure to the soil, etc.;

- thermal emissions into the atmosphere (thermal pollution of the atmosphere and hydrosphere);

- changes in the structure and properties of the underlying surface (albedo, roughness, humidity, etc.) as a result of plowing, land degradation, destruction of forests, overgrazing, turning savannas into deserts [3].

**Conclusion.** The development of civilization, to meet human needs, ultimately leads to environmental changes, including the imbalance of the climate system, the accumulation of a huge amount of waste, and, of course, increasing temperature.

The one of the main strategic tasks in combating climate warming is saving forests ecosystems and still unbroken ecosystems of the World Ocean, where the total runoff of both anthropogenic carbon and carbon released during the destruction of living biomass, take the first place among the natural regulators of the optimal CO<sub>2</sub> level and oxygen necessary for life.

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## HISTORICAL DYNAMICS AND SPIRITUAL CULTURE OF THE SOCIETY: REGIONAL AND GLOBAL CONTEXTS

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### HALLOWEEN AND THE FEAST OF IVAN KUPALA: SIMILARITIES AND DIFFERENCES

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To study foreign languages is a vital necessity. Knowledge of a foreign language is very important in modern society. But knowing only a language is not enough. In order to better understand other people, it is very important to get acquainted with the culture of these people, their traditions, values, understand their worldview and world perception, be able to see the world through their eyes. Knowledge of English is important as a way of learning different cultures. Studying the culture and customs of other countries helps to develop the cultural level. Holidays and traditions form an important part of the life of many people. After all, this is the history and heritage of the country. It is always interesting to learn more and more about the peculiarities of celebrating the events of the country whose language we are studying. That's why I wanted to learn more about the culture of England and compare it with the culture of Belarus.

The purpose of research work is to improve the level of knowledge on the culture of other countries, compare the foreign holidays with "ours" and identify the relevance of these holidays at the present time.

**Material and methods.** The material of the study was the history and traditions of the holidays of Ivan Kupala and Halloween. In the course of the survey 30 people were interviewed. In general, they are familiar with Halloween and with the holiday of Ivan Kupala.

**Findings and their discussion.** Despite the fact that most of the respondents do not celebrate these holidays (52%), Halloween (38%) is still more popular than Ivan Kupala (10%). Differences and similarities between the two holidays were found in the course of my study.

Having studied many sources of information, I realized that these holidays are very similar. Both in history and in traditions there are many similarities but apart from the similarities I also found some differences.

For example, do you know that Halloween symbolizes the arrival of winter, and the holiday of Ivan Kupala symbolizes the day of meeting fire and water? And something else, fortune telling - is an integral part of both holidays especially often guess at love.

A lot of customs and traditions of Ivan Kupala holiday are associated with love. Girls gather flowers and weave coronets which they wear at the holiday and then, at dawn, they throw their coronets into the river and let them float downstream. The boy who fishes the coronet out of the water will be that girl's

intended. At night, young and old light bonfires not far from their village or town and perform traditional dances, sing folk songs and jump over the fire. Jumping over the fire when it is burning low, as well as bathing in a river or lake are supposed to be the acts of purification. One of the culminating moments of the event is the search for a magic fern-flower in the forest. As the old legend says this flower blossoms only once a year, on «Kupalle», and the one who is lucky to find it will master the language of glass, trees, birds and animals and be happy for the rest of his life. No wonder that a lot of young boys and girls spend hours in the search for the fern-flower in blossom, which is also a symbol of love.

Traditionally, Halloween is celebrated around the fire, with songs and dances, as well as with terrible stories and legends about spirits, sorcerers, witches and all other evil spirits. People visit neighboring houses on Halloween night, which symbolizes the dead in search of food. The masks of demons and goblins represent evil spirits who seek to do something evil. Those who distribute sweets represent houses that have visited the dead, or may also represent frightened people who try to propitiate the evil spirits. Girls on this night are engaged in fortune-telling: they throw pebbles and nuts into the fire and watch what pattern will leave the fire on their surface and determine the future.

The girl should take an apple in a dark room to light a candle, and with this candle to sit in front of a mirror, then it is necessary to peer intently into the reflection. You need to eat an apple or comb your hair. After some time, the girl should see the reflection of her future husband. If a candle suddenly falls, it means presence of evil spirits, divination should be stopped.

**Conclusion.** In conclusion I should say that in the course of the survey 30 people were interviewed. In general, they are familiar with Halloween and with the holiday of Ivan Kupala.

Despite the fact that most of the respondents do not celebrate these holidays (52%), Halloween (38%) is still more popular than Ivan Kupala (10%).

These holidays are mysterious, mystical and inexhaustible on inventions. They mix modernity and mythical antiquity. Two concepts - good and evil, black and white, everything bad and all good - are interwoven into them. They are the same as life: multifaceted. But we need to learn to distinguish the subtle path of Life leading to the Light.

The need to attract the attention of foreigners to the national culture has forced many countries to revive the forgotten traditions.

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## **HOROSCOPES: REALITY OR JUST WISHFUL THINKING**

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Zodiac Sign is associated with the star under which any person was born. There are billiards of stars, therefore different names of constellation were created in order to distinguish them from each other. In modern world we know 12 types of constellation. Each person with any Zodiac Sign has own peculiar features and can differently behave in society. Sometimes the influence of any Zodiac Sign doesn't have only positive effect, but negative too. Our research is devoted to Zodiac Signs and their impact on people's nature.

The actuality of the work lies in the fact that there are many controversies between people who believe in horoscopes and Zodiac Signs' influence and those who think that it's wishful thinking.

The aim of the research is to find out whether the characters of people in life coincide with the description of characters in horoscope and Zodiac Signs' influence on our life.

**Material and methods.** As a material we used horoscopes. The methods of the research are theoretical, historical, and empirical.

**Findings and their discussion.** Zodiac Signs have been a part of humanity, guiding them through the space as well as providing them insight into their own characteristics since thousands of years. Certain changes have obviously been made through the years but it still remains to possess major significance in today's world. There have been certain rumours about this in past and that has diminished its credibility and importance.

Each sign of the Zodiac has its own element, which has a strong influence on the fate of a man and his life. For example, signs which are in the power of the forces of fire (Aries, Leo and Sagittarius) are subject to the strong influence of energy, which, on the one hand, bestows perseverance and leadership qualities, and on the other warmth and even passion. Each of the present Signs is charged with perseverance and zeal. Their representatives are accustomed to decisive action and never deviate from their goals. They are guided by the desire to subjugate others, but they like to lead a fairly carefree lifestyle. Representatives, under the signs of this element, like fire bright, catchy. They have well-developed muscles. A bit massive. They are characterized by good health, vitality, excellent energy.



In order to prove this information we decided to make this research and find out the peculiar features of each Zodiac Sign.

We conducted a questionnaire among students of 1-4 courses of each department on the basis of Polotsk College VSU P. M. Masherova. The main aims of the questionnaire were to analyze descriptions of different Zodiac Signs. Before the questionnaire we had prepared the list of adjectives.

Students had to choose the appropriate characteristics of Zodiac Signs according to their friends, relatives, acquaintances, etc.

We have analyzed the answers of the students and came to the conclusion that peculiar features of Zodiacs coincide with the description of the bearers.

For example, 75% of students chose that the Sign of Aries is stubborn and curious; 65%-short-tempered; 55%-optimistic, cheerful and has great sense of humour.

**Conclusion.** At the end of our work we would like to say, that Astrological descriptions of Zodiac signs can help us to understand other people and find a good way for communicating with them.

You can partially trust the description of Zodiacs given on the Internet, books, articles and so on. Because each person is individual and his/her character depends not only on the Zodiac Sign, but relationships in family, Zodiac signs of parents, moon sign, etc.

Researching the truth gave us a chance to learn more information about our personal Zodiac sign and enrich our knowledge about others. So this information will help us in future job in order to find individual way for each pupil.

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## **THE WOMAN'S IMAGE ON THE PAGES OF THE SOVIET PERIODICAL PRINT IN THE SECOND HALF 1940s–1950s**

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The media reflects not only the information model of current events, but also actively formulates the standards of social behavior. Popular Soviet women's magazines “Rabotnitsa” (“The Woman Worker”) and “Krestyanka” (“Peasant Woman”) were the best at solving this task, as to a greater extent they formed that reality rather than reflected it. The information content of

specialized women's publications was formed in accordance with party decisions. Magazines primarily performed an agitational function, broadcasting gender images in the spirit of state propaganda.

The purpose of this study is to consider the image of a woman, broadcast by the Soviet propaganda apparatus from the pages of women's periodicals in the second half of 1940s – 1950s.

**Material and methods.** The research was carried out on the basis of the materials taken from the magazines “Rabotnitsa” (“The Woman Worker”) and “Krestyanka” (“Peasant Woman”). The methodological basis of the work was the scientific principles of historicism, objectivity and systematic. There were used the historical-genetic, historical-descriptive, and historical-comparative methods of historical cognition, as well as the method of content analysis.

**Findings and their discussion.** The priority code in the representations of women in the second half of the 1940s. becomes their work for the benefit of the Soviet motherland. In view of the demographic imbalance of the first post-war decade, in the conditions of the shortage of the male able-bodied population, women became heavily responsible for rebuilding the state after the war. They became the basis of the labor force in the countryside and made up the predominant part of the staff in many enterprises. The main task of the female press, as a powerful lever of power, was to motivate the female population to work actively in order to restore the national economy as a result of the war as soon as possible. This basic idea is carried out in most publications and is presented in photographs posted in journals. The language of Soviet publications is full of terms, that connect women's labor with such “military themes” as “labor front”, “brilliant victory”, “heroism”, “labor feat”, “struggle for the harvest”, “courage”, etc. Such qualities as industriousness, energy, and conscientiousness are attributed to women themselves. According to the magazines cliché, a woman “works with enthusiasm”, “takes high obligations”, “answers with deed”, etc. [1].

An important feature of the image of a woman in the first post-war decade was motherhood. The general demographic crisis that erupted after the war could not but affect the birth rate, the fall of which seems quite objective, given the kind of losses the USSR came out of the war with. Stimulating a high birth rate in order to improve the demographic situation became one of the priorities of the state policy towards women. A woman began to be regarded as an important resource not only of production, but also of reproduction. These changes are reflected in the Soviet women's periodicals. The publications of magazines in every possible way promoted the decision of the Presidium of the Supreme Soviet of the USSR of July 8, 1944, “On increasing state aid to pregnant women, large and single mothers, strengthening the protection of motherhood and childhood, on establishing the honorary title “Mother Heroine” and the establishment of the Order “Maternal Glory”, and the medal “Maternity Medal” [2].

The main image on the pages becomes the image of the mother heroine. The emphasis is not only placed on motherhood, but also on the family. The introduction of mandatory headings for mothers and active campaigning for the adoption of orphans reflect the state's policy to combat child homelessness [3].

With the onset of the “thaw” period, the propaganda of the image of a woman-social-activist intensifies. The magazine “Rabotnitsa” shows the phenomenon of social activists' movement (since 1957 the rubric “Page women-public workers” appears in the magazine), in which not only the government, but also public committees and meetings developed their own programs of the reconstruction of everyday life. For example, in 1957 the meeting of workers of the Lublin Foundry and Mechanical Plant named after L.M. Kaganovich initiated the construction of a club for schoolchildren [4]. The change of the foreign policy situation in the period of “thaw” also affects the role of women in society: there broadcasts the image of a women-peacemaker, which “should help to establish” peace between countries [5]. However, the new social role of a woman is not a substitute for the previous ones of woman-worker, woman-mother, woman-social activist.

**Conclusion.** On the pages of women's periodicals “Rabotnitsa” and “Krestyanka” in the second half of 1940s–1950s three main images of a woman are broadcast: a woman-worker, a woman-mother, a woman-social activist. The materials of the articles of periodicals, changes in the content, the style of presentation of periodicals make it possible to trace the influence of economic and political processes on the image of a woman that the state needs.

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## THE SELJUK-BYZANTIUM SRUGGLE IN THE 1260'S

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The second half of the 13th century had been marked by the changing of political situation in Asia Minor. After defeating of the Seljuks in the Battle of Kose-Dag (June 26, 1243), capturing of Sivas and Kayseri the Rum Sultanate turned into a vassal state of the Mongols [1, c. 259]. Mongol conquest caused

the new wave of migrants from the West into Asia Minor. It was mainly nomadic tribes of not only of Turk, but also of Iranian origin [2, c. 15]. About 200 thousand nomadic Turkmens had been situated at the Western Udjs (borders) of the Sultanate in the vicinity of the Turkmen mountain (Jabal Turkman) near Denizli (Tunguzlu, Laodicea) and the fortress of Chonas [3, c. 14]. Such a fast pace of the expansion of nomadic tribes on the West was caused by many factors, such as military and economic weakness of the Nicaea Empire and the Sultanate of Rum, and a significant number of Turks among the Byzantine population of Asia Minor [4, c. 127].

The actual process of decay of the Sultanate of Rum and the weakening of the Byzantine in the second half of the 13th – the first half of the 14th centuries had started from the emergence of the autonomous and semi-independent udjes (fiefdom, given to heads of tribes in exchange for the obligation to protect borders from external enemies) and beyliks (principalities) in the 1260's. Thus the study of the seljuk-byzantium struggle in the 1260's is so important.

The purpose of the study is to consider causes and consequences of the Seljuk-byzantium struggle in the 1260's.

**Material and methods.** The research is based on the sources of the Italian and Byzantine origin. They are “The History of the Mongals” by Giovanni da Pian del Carpine, “The Roman History” by Nicephorus Gregoras, “The History” by George Pachymeres. It also based on achievements of the soviet, Russian, English and German historiography. The following methods were used: historical-genetic, historical-comparative, historical-systemic.

**Findings and their discussion.** Despite the great danger the first contacts between the European states and nomadic tribes of the eastern part of Asia Minor were established in this period. The pioneers in trading with the nomads was the Republic of Venice [3, c. 77]. More intense were the relations between nomads and the Byzantine Empire. Nomadic tribes started to commit raids into Byzantine border areas from the 1260's [5, c. 111]. Soon these raids became more organized and had got ideological underpinning of holy war of Muslims against infidels – gazavat-jihad. Udj-beys (the head of udj, exempt from paying taxes in exchange for serving the border guards of the Seljuk Sultanate) often identify themselves as ghazi (warrior of faith) and it was the reason for increasing of their status in the Muslim community [6, c. 495]. However, we shouldn't overrate the religious component of these campaigns. First of all, their main objectives were robbery and the seizure of new territories. Thus, every ordinary soldier or participant of the raid could be considered as a ghazi [7, c. 36].

In the beginning of the reign of the emperor Michael VIII Palaiologos (1259 – 1282) eastern Byzantine boundary line was from the river Ind (Dalaman Cayi) through Milas to Antioch and Suvley (Keciborlu). Then the boundary went west of Kottiteya (Kutahya) through Klavdicopol (Bolu) to the Amastris (Kizilirmak) river [3, c. 19]. During the period of the reign of Laskaris (1204 –

1261) byzantine created effective security belt, consisted of several fortresses of Germ (Gediz) and Kaystros (Kucuk Menderes) upstreams. The most important role was assigned to the fortress of Tralles (Aydin) [8, с. 200]. Besides, the significant fortress of Tripoli (Tirebolu) on Meander (Buyuk Menderes) river had been strengthened [9, с. 91]. Crucial role in the defense of the eastern borders was played by akritai – a special estate in the Byzantine Empire, military border settlers (usually from a peasant environment), exempted from paying taxes for the period of duty [10, с. 12].

**Conclusion.** Thus, the 1260's was a period of the Byzantine relations with the Seljuks, when the empire was able to withstand the Seljuck danger on the Eastern borders. In the previous period byzantine created effective security belt, consisted of several fortresses of Germ (Gediz) and Kaystros (Kucuk Menderes) upstreams. Before the restoration of the Byzantine Empire (1261), the Byzantines successfully coped with the onslaught of nomads. Michael VIII made a campaign against the bey of Denizli Mehmed al-Udji in the autumn of 1260. Nomads were expelled from the Byzantine territory in the upstream of Meander (Buyuk Menderes). Soon after byzantine troops crossed the river and seized part of their land [11, с. 830]. After that campaign the policy of Michael VIII towards nomads had changed: he gave them an opportunity to become the citizens to prevent the Mongol conquest [8, с. 123].

After relocation of the capital from Nicaea to Constantinople in 1261, Byzantine was involved into the Balkan conflict, which demanded the movement of military contingents to the west and fiscal tightening (the abolition of tax privileges of the akritai) [8, с. 9]. Thus, the eastern border of the empire was put under a threat [12, с. 594]. Subsequently, the navy was dismantled by the emperor's order in 1284, which led not only to the military weakening of Byzantine, but also to increasing of piracy in the region [13, с. 58]. Nomads were repelled from the valleys of the Meander (Buyuk Menderes) and Kaystros (Kucuk Menderes) rivers and from the fortresses of Tralles (Aydin) and Magedon (Magidiy), but it had made only short-term military gains [8, с. 201]. Soon nomads were able to move across borders and captured these regions again [8, с. 432].

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## **REGIONAL METHODOLOGICAL CENTER OF FOLK ART AS A SOCIAL AND CULTURAL PARTNER IN THE FORMATION OF VALUE ATTITUDE TO THE FAMILY**

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The creation, preservation and strengthening of the family is one of the most important social, biomedical, economic and political challenges facing modern society. Unfavorable factors, deformation of values among the younger generation, promotion of false values in the global Internet, loss of native Belarusian traditions of the family have a significant impact on the formation of family values. Today, to create a developing environment that contributes to the improvement of the educational space of the individual, it is necessary to cooperate and interact with other educational institutions of socio-cultural objects.

The purpose of the study: study the specifics of the regional scientific center of folk art as a socio-cultural partner in the process of forming the value attitude of girls-College students to the family.

**Material and methods.** The basis of the study was the state institution «Vitebsk regional methodical center of folk art». As research methods were used: analysis, synthesis, generalization, comparison, terminological method, study and generalization of experience.



**Findings and their discussion.** In our study, we adhere to the fact that the socio-cultural partnership is a multi-level, internally differentiated open dynamic system that integrates institutions and organizations in order to form a favorable socio-cultural educational environment and is implemented on the basis of the interest of all parties in creating organizational and pedagogical conditions for the formation of value attitude of girls to the family.

A special role in the process of assigning universal values, in particular the socially significant value of the «family» (L.P. Razbegaeva), acquires a socio-cultural environment, which is a set of conditions that ensure this process. In our case, it is an organized social and cultural partnership. The structure of the system of social and cultural partnership in our study includes the purpose, principles, functions, content, forms, mechanisms, results and potential [1, p. 104].

In the research process, we were allocated the subjects socio-cultural partnership, systematic activity which, in interaction contributes to the overall objective – formation of value attitude of girls–College students to family. As such subjects of socio-cultural partnership were: Educational institution «Vitebsk state College of culture and arts»; Children's library-branch number 11 named after M. Lynkov centralized library system Vitebsk; Educational institution «Vitebsk state music College named after I. I. Sollertinsky»; State institution «Vitebsk regional library named after V. I. Lenin»; Cultural institution «Vitebsk regional Museum of local lore»; State institution «Vitebsk regional Philharmonic society»; National academic drama theatre named After Y. Kolos; State institution «Vitebsk regional methodical center of folk art».

In this article we will consider the socio-cultural role of the regional methodological center of folk art as a partner in the formation of value attitude to the family.

Art and culture play a huge role in shaping the values of the younger generation. «The values embodied in the flow of culture are perceived not in isolation from the environment, but in a single context with it, in an organic relationship with the background (cultural, historical, psychological, etc.) on which contact is established, the interaction of man and culture takes place,» P. V. Andrushchenko noted [1, p. 115].

State institution «Vitebsk regional methodical center of folk art» was founded on March 17, 1939 by Resolution № 318 of the organizing Committee of the Presidium of the Supreme Soviet of the BSSR in Vitebsk region. Located since its Foundation in the building of the monument of architecture of the late XVIII early XIX century in the city center.

The main purpose of this institution: provide methodological assistance on the preservation and development of achievements of national culture, folk art and crafts of the Republic of Belarus, to create conditions for the development of folklore groups in cultural institutions, Houses (Centers) crafts Vitebsk region.

Each year, the staff of the center conducted jointly with the Department of ideological work, culture and youth Affairs Vitebsk regional Executive Committee and district departments of ideological work, culture and youth Affairs, holidays international level: the song and music festival «Dnieper voices in Dubrovno», festival of folk music «Cymbals and accordion ring» in Postavy, the international holiday of traditional culture «Braslav Lightnings». Also, the methodological center conducts reviews and competitions in various genres (theatrical, choreographic, instrumental, etc.).

Actively developing and folklore direction, an indicator of this is the contest-review «From ancestors to the stars» and the regional holiday ritual folk «Kupala Lake District».

The exhibition hall of the organization hosts city, regional, national and international exhibitions of masters of folk art, naive art.

Promoting the Belarusian culture the center of folk art provides services in the organization of puppet performances, master classes in traditional and modern types of decorative and applied art (beregini's dolls, patchwork, vytinanka, fabric painting, origami, decoupage, etc.). The rites and holidays of Belarusian folk calendar: Christmas carols, wedding ceremonies, Dozhinki, Kupala day, Maslenitsa, Easter, etc.

Having analyzed the potential of the regional methodical center of folk art, we built it into the model of social and cultural partnership of formation of value attitude to the family. An employee of the center joined the initiative group of the coordinating Council of social and cultural partnership. The model and action plan developed by us allowed us to determine that this institution will implement the motivational and activity components of the value attitude of girls to the family. The main form of implementation was the youth school «Family together-soul in place», with a period of meetings one time a week. All substantive topics were agreed with the other partners in accordance with the objectives for a specific period of time. Examples of such events were: family holiday «Woman Keeper of the hearth», folk festival «Kupala», correspondence trip «Life cycle of the family», etc.

**Conclusion.** Thus, the regional methodical center of folk art is the partner that through folk art helps to influence the spiritual part of the person and motivate through folk, folk, decorative and applied works of culture on traditional values in the field of marriage and family relations.

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# DETERMINATION OF THE SOCIAL ROLE OF LANGUAGES AND THEIR FUNCTIONING, LITERATURE, BELARUSIAN FOLKLORE IN THE CONTEXT OF EUROPEAN AND WORLD CULTURE CHANGES

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## COMPARATIVE ANALYSIS OF GRAMMATICAL CATEGORIES OF THE ENGLISH AND RUSSIAN VERB

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Language, as the most important means of communication, is a necessary condition for the emergence of ethnic community. It reflects both common features with other languages and individual characteristics. The structure of a foreign language is one of the important aspects in its study, because all languages are different in their lexical, morphological and syntactic structure. Therefore, we always compare the linguistic phenomena of native and foreign languages, studying their grammatical system and vocabulary.

The purpose of the study is to describe the grammatical categories of the verb in English and Russian in a comparative way.

**Material and methods.** The study was based on materials taken from books M.Blokh. “Theoretical English Grammar” and B.Ilish “The structure of Modern English” and Chepasova F. M., Kazachuk I. G. “Verbs in the modern Russian language” (Чепасова Ф.М., Казачук И.Г. “Глаголы в современном русском языке”.) The methodological basis of the work was comparative analysis and descriptive analysis.

**Findings and their discussion.** Verbs used to express a state or an action. In Russian, the verb has grammatical categories of tense, mood, pledge, type, person, number and gender. In English, the grammatical categories of the verb are: person (first, second, third): I write, you write, he writes; number (singular, plural): he writes, they write, she writes, we write; tense (present, past, future): I write, wrote, will write; aspect (continuous, non-continuous): he wrote, he was writing; order (perfect, non-perfect): she writes, she has written; voice (active, passive): he wrote a letter, a letter was written; mood (indicative, imperative, subjunctive): you are writing, Write! You would write.

The category of number and person. In Russian and in English, the verb has the following system of personal and numerical categories: 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>; singular and plural. The number of the English verb is clearly expressed by the verb “to be” in the past tense, which has the form "was" for the singular: I (he, she, it) was looking out of the window – I (he, she, it) looked (a, o) at the window; and the form "were" for the plural: We (you, they) were watching TV – We (you, they) were watching TV. In Russian, the verb is used in the form of

the first person singular when the producer of the action is the speaker himself (I write). In Russian the action performed by a group of persons, including the speaker, is expressed in the form of the first person plural (we write); the action performed by those who do not participate in the dialogue, is expressed in the forms of the third person singular (she writes) and plural, when there are more than one action (they write). In English, the form of the third

The category of tense. In Russian there are three tenses: present, past and future, and there are five forms of time, since the category of time is related to the category of aspect. Imperfective verbs have three forms of tense: present, past and compound future (taught, teach, will teach). Perfective verbs have two forms: past and future simple tense (learned, I will learn). In English there are three tenses (past, present, future) represented by the forms. So the three main divisions of time are represented in the English verbal system by the three tenses. Each of them may appear in the common and in the continuous aspect. Thus we get six tense-aspect forms. Besides these six, however, there are two more, namely, the future-in-the-past and the future-continuous-in-the-past. It is common knowledge that these forms are used chiefly in subordinate clauses depending on a main clause having its predicative verb in one of the past tenses, e.g., I meant simply that even death, if I came to her here, would seem state.

The category of aspect of English verb divided into two groups: common and continuous. A note is necessary here on the relation between the aspects of the English verb and of the Russian verb. Without going into details, we may assume that the Russian verb has two aspects, the perfective and the imperfective. All other varieties of aspectual meaning are to be considered within the framework of the two basic aspects. It is obvious at once that there is no direct correspondence between English and Russian aspects: for instance, the English continuous aspect is not identically with the Russian imperfective. The relation between the two types is not so simple as all that. On the one hand, the English common aspect may correspond not only to the Russian perfective but also to the Russian imperfective aspect: thus, she wrote may correspond both to написал and писал. On the other hand, the Russian imperfective aspect may correspond not only continuous but also to the common aspect in English: thus, писал may correspond both to was writing and to wrote.

The category of voice. Voice is a grammatical category of a verb that reflects a situation involving an action, subject, and object, and represents it as either the active action of the subject, or the state of the object. In Russian and English there are two types of voice: active voice and passive voice. The active voice indicates that the action is directed from the subject or issues from the subject, thus the subject denotes the doer (agent) of the action, e.g., He invited his friends. The passive voice indicates that the action is directed towards the subject. Here the subject expresses a person or non-person who or which is the receiver of the action, e.g., he was invited by his friends.

The category of mood shows the relation of action to reality. This relation is established by the speaker. He can use the verb form to represent an action as real, problematic, unreal, or as a request or command. In English, as well as in Russian, there are the following moods: indicative mood (We have never heard of it), imperative mood (Bring me the book!), Subjunctive mood (I suggest(ed) (that) he should address the audience), Conditional mood (If Tom had been here yesterday he'd have helped us).

**Conclusion.** The Russian and English languages have some common features. Differences in the category of aspect in English significantly complicate both the understanding of the meaning and use of aspect forms in the Russian sentence, and the correct selection of tense forms of verbs when translated into English. The generality of the categories is least evident in the conditional mood, while the imperative and indicative moods are quite similar in meaning and functions. The categories of voice have characteristic features associated with the peculiarities of grammatical expression of active and passive actions.

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## **IMAGES PAINTERS AND ARTISTS IN THE COLLECTION “SHIPSHINA FOR PANI” LOUDLY RUBLESKI**

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Lyudmila Rublevskaya is a popular modern writer who is deservedly the owner of numerous literary awards and prizes, the author of more than three dozen books of poetry and prose. Her works have been translated into Russian, German, English, French, Bulgarian, Polish and dozens of other languages.

The collection of Lyudmila Rublevskaya “Shipshina for Pani” was published in 2007, it combines the best poetic acquisitions Rublevskaya. The title of the collection is ambiguous. First, the rose hip is a symbol-image of the Motherland according to the literary tradition laid down by Vladimir Dubovka. Secondly, it is the embodiment of the phenomenon of borderline, transitional, because the rose hip is a wild rose, not an ennobled flower, and thirdly, it is an image of natural, not artificial beauty.



The relevance of our research is to deepen the understanding of the relationship between different types of art.

The purpose of the article is to reveal the peculiarity of Lyudmila Rublevskaya's representation of images of painters and artists.

**Material and methods.** Material for the study was the collection of verses of Lyudmila Rublevskaya "Shipshina for Pani". Research methods-structural-typological, phenomenological, descriptive.

**Findings and their discussion.** The collection "Briar for young ladies" is filled with images of famous personalities. In the second section, which is called "crossroads Garden", Rublevskaya dedicates a poem to the artist Yazep Drozdovich. The work begins with the lines: "Drozdovich walked through the fields of your dark, Fatherland..." [1, p.42]. In this poem, the poetess widely uses mythical images: the weeping (symbolizes mourning and sorrow, the Homeland), the fern flower (if a person found this flower, he acquired unusual qualities, could understand plants and animals), the Pleiades (in mythology, the seven sisters, daughters of the Atlanta and oceanic tribes). Yazep Drozdovich, a native of Vitebsk region – is a talented and original artist and philosopher. He was interested in space. Drozdovich was not officially recognized and accepted into the Union of artists of Belarus. He tragically died while traveling on the road: the traveler was found by peasants. The death of a talented artist on the road is tragic and symbolic, it emphasizes the idea that the road, creative anxiety – the eternal companion of the creative person. The images of the Weeping and the fern flower indirectly indicated the romantic attitude of the people's artist Yazep Drozdovich, whose nature was bestowed by his native land:

І падалі зоры, і Папараць-кветка палала,  
І Чорная Плачка, найлепшая ў свеце жанчына,  
Над ім нахілялася, ціха яго цалавала [1, p.42].

The section "Crossroads garden" also includes a poem about Mikhail Oginsky. He is a well-known composer, as well as a statesman and military figure of the Grand Duchy of Lithuania and the Polish-Lithuanian Commonwealth. The poem is called "Oginsky Polonaise", It is worth noting that with the same name there is a poem by Neil Gilevich. It is known that his famous Polonaise, which is called "Farewell to the Motherland..." Oginsky wrote in the village Zalesie Oshmyansky district of Grodno region. L. Rublevskaya tried to convey the mood of the composer during the farewell to his native places and attitude to those who forced him to leave his native land. In the interpretation of L. Rublevskaya, the composer called his enemies traitors and villains. Oginsky's monologue before a bitter farewell underscores his anxiety for the future:

Дом зачынены. Вазок стаіць ля брамы.  
У гародчыку крывавыя вяргіні.  
Дрэмле край прыўкрасных рыцараў і дамаў,  
Дрэмле край халопай, здраднікаў і злыдняў.

Па пялёстках і па страчаных марэннях,  
У апошні раз – між родных краявідаў.  
Любы край, тваё змарнуецца каменне,  
Назапашанае, каб мяне закідаць  
Крылы складзены на дне маёй валізы.  
Ці чужое неба іх напоўніць ветрам? [4, р.46].

In the fourth section of the collection, which has the title “Garden of fire”, there is a poem about the Polish poet, playwright, painter – Ciprian Norvid. Fate did not spoil him. It is known that the painter and poet lived in poverty. Over the years, gradually lost his hearing and vision, was always surrounded by caustic criticism of detractors. In the poem, Norvid repeats several times “I am a dim poet”, which emphasizes the ironic attitude of the talented person to the characteristics of detractors. Norvid ironically compares himself to Noah – the last biblical antediluvian Patriarch:

Я – цьмяны паэт.  
Я забыўся, што дождж – вада,  
Што вецер – паветра,  
А не стогн...  
А не стома асенняга неба,  
Я сябе жабраку, быццам грошык, аддам,  
Я ўпаду хуткім позіркам  
За таямнічы веер [4, р.94].

**Conclusion.** The analysis of the artistic representation of painters and artists in the collection “Shipshina for pani” allows us to draw the following conclusions: Lyudmila Rublevskaya is inspired by Russian history, poetizes the names of our famous ancestors and famous cultural figures in General. Because of the fate of the artist E. Drozdovich and composer M. Oginsky, L. Rublevskaya proved in poetic form that our history is rich in examples of selfless service of outstanding people to their Homeland and their compatriots. The problems of her poems about painters and artists are extensive: historical and cultural memory, life and death, art and its creators, the relationship of the Creator with the people and colleagues in the work, life trials, the perception of a cultural figure by contemporaries and descendants. Images of creators were revealed by the writer mainly through monologues.

1. Rublevskaya, L. Shipshina for Pani: poems and essays / L. Rublevskaya. – Minsk: fiction, 2007 – 254 p.

## LEXICO-SEMANTIC ANALYSIS OF CURRENCY AND CREDIT TERMS

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The article centers round the study of lexico-semantic analysis of currency and credit terms. The relevance of the study stems from the fact that spheres of currency and credit are of paramount importance in the modern world. A person needs to stay in tune with the changing world, in particular with the economic realm. Erudition in exchange transactions and credit arrangements makes it simple how to hold the purse strings and to succeed in it.

The purpose of the study is to examine different currency and credit terms and to single out certain categories based on the lexico-semantic analysis.

**Material and methods.** Due to the essentiality of currency and credit operations in the modern world, data for this study are provided by A Dictionary of Finance and Banking, by Cambridge International Dictionary of English and by Oxford Learner's Dictionary of Academic English.

The methods for division on the following term groups regarded as descriptive and comparative as well as sampling enabled to carry out detailed analysis concerning different layers of currency and credit terminology.

**Findings and their discussion.** First of all, we define what term means. It makes sense to rest upon the notions of terms in well-proven Cambridge International Dictionary of English and Oxford Learner's Dictionary of Academic English:

Term is a word or expression used in relation to a particular subject, often to describe something official or technical [2].

Term is a word or phrase used as the name of something, especially one connected with a particular type of language [3].

Owing to these notions we can outline the following markings of the terms: complexity, monosemy within one field of application, precise definition, certainty, neutral connotation. All these marking correspond to the following classification of currency and credit terms.

According to the lexico-semantic analysis, we classify currency and credit terms into eight groups: 1) participants of currency and credit transactions; 2) lending transactions; 3) exchange transactions involved in civil law relations; 4) terms connected with international money transfers; 5) terms involved in adjustment of currency and credit matters; 6) payment product; 7) documents and objects of currency and credit matters; 8) paper holdings and financial assets.

1. Participants of currency and credit transactions.

We can refer *a dealer, a broker, a market maker and banks (commercial banks, state banks), etc.* to this group. They all conduct financial transactions,

have specialized knowledge of stock markets and receive payments on behalf of their customers, e.g., *banks* – ‘concerned mainly with making and receiving payments on behalf of their customers’ [1]; *brokers* – ‘have specialized knowledge of certain markets’ [1].

2. Lending transactions.

The group is represented by *leasing, factoring, forfeiting, credit, credit line, overdraft, etc.* Their common features are accepting the credit risk and they are forms of debt, e.g., *factoring* – ‘the buying of the trade debts accepting the credit risk’ [2]; *forfeiting* – ‘a form of debt discounting for exporters’ [1].

3. Exchange transactions involved in civil law relations.

The third group concludes in *mortgage, appropriation, taxation, loan, bond, duty, etc.* All of them are connected with civil law relations and mark regulations between government and citizenry, e.g., *appropriation* – ‘such normal trade expenses as wages and salaries of employees, motor running expenses, light and heat, and most interest payments on external finance’ [1]; *taxation* – ‘a levy on individuals or corporate bodies by central or local government’ [1].

4. Terms connected with international money transfers.

Terms introduce *electronic transfer of funds (ETF), foreign exchange (FX; FOREX), rate of exchange (exchange rate), etc.* Common to them is the usage of e-commerce platform and a vector on external financial transactions, e.g., *ETF* – ‘the transfer of money from one bank account to another by means of computers and communications links’ [1]; *FOREX* – ‘the currencies of foreign countries’ [1].

5. Terms involved in adjustment of currency and credit matters.

There are *trust, stock market, offshore financial centres, collection, liquidity, surcharge liability notice, bank guarantee, etc.* These terms deal with engagement of banks’ customers in the currency and credit system, e.g., *offshore financial centres* – ‘centres that provide advantageous deposit and lending rates to non-residents’ [1]; *bank guarantee* – ‘an undertaking given by a bank to settle a debt should the debtor fail to do so’ [1].

6. Payment product.

*Cash card, chip card, smart card, currency, cash, etc.* belong to the group named payment product. Their main function is to pay for services, products, etc., e.g., *cash card* – ‘a plastic card enabling customers of banks and building societies to obtain cash from automated teller machines’ [1]; *currency* – ‘any kind of money that is in circulation in an economy’ [1].

7. Documents and objects of currency and credit matters.

They fall into terms like *account, accounts receivable (trade debtors), savings account, statement of financial position, balance sheet, interest, ATM, amortization, risk (speculative risk, pure risk), etc.* They contain both financial information and system components, e.g., *balance sheet* – ‘a statement of the total assets and liabilities of an organization’ [1]; *the interest rate* – ‘the charge

made, expressed as a percentage of the total sum loaned, for a stated period of time (usually one year)' [1].

8. Paper holdings and financial assets.

This group includes *bond, promissory note, cheque, certificate of deposit, share, investment, deposit: demand deposit, time deposit, portfolio, etc.* They are connected with creditability and financial standing of companies, e.g., *share* – ‘one of a number of titles of ownership in a company’ [1]; *portfolio* – ‘a list of the loans made by an organization’ [1].

**Conclusion.** The result of the study based on lexico-semantic analysis of currency and credit terms proves that their classifications are essential to get them straight and to use them in a proper way. Finding of the common traits and positions for one or other classification let us make up following conclusion: currency and credit system is regarded as complex system due to the following identifying features:

a) subjects (investment entities), b) objects (business ventures), c) finance documents, d) means of paying, e) transactions, f) the main vectors: domestic financial system and international finances.

The classification of currency and credit terms has shown that their learning enhances understanding of native speakers, their currency and credit matters and transactions in all their multiplicity.

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2. Cambridge International Dictionary of English [Electronic resource]. – Mode of access: <https://dictionary.cambridge.org/ru/> – Date of access: 03.11.2019.
3. Oxford Learner's Dictionary of Academic English [Electronic resource]. – Mode of access: <https://www.oxfordlearnersdictionaries.com/definition/academic/> – Date of access: 03.11.2019.

## **SOCIOCULTURAL AND EDUCATION POTENTIAL OF NEWSPAPER ARTICLES**

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In the context of expanding contacts and integration into the world community, background knowledge and understanding of political, economic, and social trends acquire special significance. Each society has a specific view of the world that is typical only for this definite society, which meets physical, spiritual, technological, aesthetic, ethical and other needs. Language is one of the means that forms the global picture.



The relevance of this work consists in the fact that the formation of sociocultural competence in foreign language classes implies the enrichment of students' linguistic, aesthetic and ethical knowledge about the country where the language is spoken. There is no doubt that training of sociocultural competence should be based on the so-called authentic texts, since a text is both a means of communication, a way of storage and transmission of information and a reflection of certain national traditions and culture. The text reflects all the important components of the linguistic and cultural reality of the country of the studied language. We should understand that authentic texts are nothing more than texts of newspaper style.

The aim of the article is to trace the sociocultural potential of the texts of newspaper style as an additional educational material.

**Material and methods.** In compiling this work we examined English newspaper articles and used such methods as collecting and analyzing the information from different sources (books, reference books, the Internet sources).

**Findings and their discussion.** According to I.R. Galperin English newspaper style may be defined as a system of interrelated lexical, phraseological and grammatical means as a separate unity that basically serves the purpose of informing and instructing the reader [2, p. 148].

The peculiarities of the language of newspapers are determined by such extralinguistic factors as relevance, mass character, efficiency, frequency, striking attitude of the author. This style is characterized by the unity of two functions - informative and appealing.

Primary function of the newspaper style is to provide authentic firsthand information, update the knowledge of readers and to influence public opinion on political and other matters (newsreel, brief news report, reportage, interview, announcements and editorials).

The informative function determines such qualities of a press text as actuality, officiality, generality, abstractiveness. The appealing function determines such qualities as motivation, verbal expressiveness, emotionalism, evaluativity and polemic.

The interaction and interconnection of these two functions in the language of the newspaper is manifested, in particular, in the fact that the presence of standard units (due to the informative function) and expressive units (due to the appealing function) is always found in the same text.

The special influence of newspaper articles lies in such a property as dynamism: the author speaks openly on his behalf and addresses the reader as an individual. Openly expressed author's "I", an appeal to the reader, question-answer constructions can be clearly traced.

The sociocultural potential of newspaper style includes cross-cultural, linguistic and socio-psychological components.

Cross-cultural component covers valuable material for demonstrations of a foreign language culture, a different lifestyle, national mentality, national-cultural peculiarity, which contributes to the formation of a secondary linguistic personality.

One glance at a newspaper article is enough to understand that the material is well-organized from a thematic point of view. News, politics, business, sports, education, healthcare, art and culture, computers, advertising, weather - this is not a complete list of newspaper headings filled with various texts. The teacher can easily select the text for any topic of the class.

While working with press, linguistic component covers language units that most clearly reflect the cultural characteristics of people and their environment. If we take into consideration the vocabulary, newspaper publications contain a large number of special political and economic terms, non-equivalent vocabulary, toponymic and proper names, a wide use of language means to actualize chronotop (proper and geographical names), certain clichés, abbreviations, set expressions, stereotyped expressions that accurately express rather complex concepts. The newspaper is an inexhaustible source that reflects the dynamics of the development of the language, that's why neologisms, a great number of loan-words and international words are very common in the newspaper style. Press texts also contain a large number of phraseological units and idiomatic expressions.

Very acute from the sociocultural point of view are means of expressive syntax: specific word order – 5W-pattern rule: (who-what-why-how-where-when), inversions, parallelism, antithesis, parcellation and gradation. You can also find such means of imagery to increase expressiveness as trite metaphors, metonymies, personification, metaphorical paraphrases, metaphorical use of terminology.

Thus, newspaper materials can both acquaint with culture, stereotypes of behavior, processes taking place in society, and can be used as materials for working on the development of communication skills and the formation of linguistic competence.

Socio-psychological component taken into consideration in the process of working with the newspaper style allows individuals to navigate in any social situation, to operate with foreign cultural concepts in accordance to the situation, make the right decisions and achieve their goals, it gives the possibility to present information adequately regarding similarities and differences in realities of contacting cultures, willingness to participate in intercultural dialogue.

**Conclusion.** Having examined the information on our topic we have come to a conclusion that the chief and fundamental function of the newspaper articles is to provide information to the general public. This is obviously the most important function but the other one that must be paid equal attention is to make a lasting appeal to the public. Sociocultural potential of newspaper articles is viewed as a possibility to apply multicultural knowledge, skills and values. It goes without saying that newspaper articles often highlight current trends of the

countries which language we study. They can dispel or confirm some stereotypes. It is to be noted that press texts often serve as a starting point for debates and are excellent material for developing speaking skills. The articles help organize discussion and motivate to formulate and express their own opinion. Newspaper articles can expand vocabulary on a specific topic. The newspaper style is also characterized by the fact that it contains a large number of phraseological units and idiomatic expressions and clichés. Modern newspaper texts provide an insight into current grammatical and syntactic constructions, which is important for students whose knowledge is quite deep to reveal nuances and thus come closer to the advanced level of language proficiency.

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## **TENDENCIES OF INTERNET-POETRY IN THE WORKS OF GARY TURK**

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Gary Turk is a modern British poet and filmmaker. He defines himself as a storyteller too, and such a bit enigmatic at the first glance self-identification describes his personality in the best possible way. The thing is that each of his short films poses a wholesome and sometimes very sophisticated rhymed narrative performed by a fine philosopher of today. Each and every work of poetry belonging to Gary Turk is a guarantee of true-to-life account of our society's vital problems in their natural form not blurred with contrived ignorance and pretended disregard. That is why catchy ideas of his creations embody the old saying that ignorance is no excuse. The best thing about his peculiar lyrical provocations is that the author always gives solutions which perfectly appeal to the audience in their clarity, veracity and surprising simplicity.

The purpose of the study is to identify trends in modern Internet poetry based on the works of Gary Turk.

**Material and methods.** The method of contextual analysis together with observation and generalization is used while investigating Gary Turk's lyrical narratives in order to find out the role of modern slang lexis connected with technologies and digitalization in popular Internet-poetry.

**Findings and their discussion.** His appeals appear to be so magnetic for a number of reasons. First and foremost is the format of his so-called "conversational films for the online generation" of the beginning of the XXI century. Even though "he is offline much more than online"[1], Gary Turk performs mostly on the Internet as nowadays this is probably the fastest and definitely one of the most effective ways to broadcast thoughts and opinions to audiences wide indeed.

It won't be a mistake to say that it's quite characteristic of an Englishman to perform something in a very restrained, but at the same time lively and from time to time even fierce manner in order to affect the narratee by the ideas the author has come up with. So elevating words of the blame for our disregard of genuine happiness are spoken by Gary Turk with evidently heard despair in his voice. Nevertheless, these straight-from-the-shoulder remarks don't agree with a man who has suddenly realized how rapidly people are getting down regarding some of the eternal moral values. On the contrary, Turk's vivid protest is all about reminding us how strong the humanity is being able to accept its blame and forgive, to be wise and tolerant, to give second chances and "live rich" exactly as in one of his poems titled this way.

The ideas of this Internet thinker are struggling with the overall passion for filling our brains with tons of virtually useless information which we don't even notice most of the time we spend on the Web. We are so deep into our social media pseudo-worlds that it has already become complicated to look at the real one without prejudice about its imperfection and cruelty. The matter is that we create them both with our own minds, words, actions or their absence. Generally, this is what Gary Turk's poetry is about. And these are the theses we vitally need to understand very carefully if we don't want to miss the chances that actually make up our fate.

Here should be noticed his brilliant work of literary and visual art called "Look Up". This is Turk's most well-known creation – the traditional of his style five-minute short film has already gained 60 million views worldwide for almost five years of existence, and it's not a big surprise at all that this impressive number still keeps growing. In this video poem, an actual topic is developed through an extremely passionate monologue describing the moral harm technologies bring us when we permit them to steal our dearest things – time, thoughts and emotions. The urgency of the subject can be seen not only in the poem itself but also in the kind of audience the main idea of the text is intended to be understood by. The biggest part of Gary Turk's works is dedicated to young adults in order to make them think independently and form

their personal opinions on a variety of subjects starting from individual problems of being an introvert, struggling procrastination or being influenced by consumerism and continued with those of the political aspect of the whole country's life.

“Look Up” is a manifest of the sensible man who is eager to open people's eyes for them to break at last this never-ending circle of neglecting the vital need in live communication. We replace it by the constant usage of different electronic devices aimed at keeping us in tune with online “friends” in virtual chats: “We edit and exaggerate, we crave adulation, // we pretend we don't notice the social isolation”. This extract also greatly unfolds the additional idea of loneliness we create around us by ourselves starring at gadgets' screens instead of socializing without them. It all is empathized even more further in the text making the poem convincing and obviously thought-provoking: “So when you're in public, and you start to feel alone, // put your hands behind your head, and step away from the phone”. This naïve sounding decision may not be easy for most of us to realize, although we'll definitely be denying this fact because of our natural egoistic self-assurance.

It won't be an exaggeration to affirm that the strong impact of Gary Turk's poem is wonderful in its artistic value. The heart-felt rhythm of the text reminds of rolling sea waves evolving into the storm, although originally reading is harmoniously accompanied with the smooth melody which slightly levels the hyperbolized pathos of the performance. Moreover, the visual illustration of the text is quite impressive as the shots of “everyday life” with and without our beloved high-tech devices are proportionally mixed with close-ups of the narrator's passionate speaking. So it can be said that this particular work of the storyteller's talent embodies such a good example of combining different forms of art – filmmaking, music and, of course, poetry – that may be taken as the iconic one for those people who crave for being heard and, most importantly, understood.

It should be mentioned that the layer of lexis chosen by the author plays an important role in “Look Up's” contextual realizability. It is a peculiar thing that the possibilities of transmitting thoughts can be easily widened by using words that became usual for us, having appeared not so long ago. For instance, expressions like “smart phone” or “social media” are still to some extent considered to be neologisms as they represent the rapidly developing sphere of technology which is ever-changing since the second half of the last century.

Lexis connected with digitalization is nothing new to us because it has already become an almost essential part of everyday routine. The modern age is indeed becoming one of “smart phones and dumb people” as there are persons who say their mobile phone contains their whole life. Thus, we tend to replace our real inner states with the things we see at displays of our devices, neglecting brightness and the true value of simple joys. People have become so digitally obsessed that in particular cases they seem to know names of gadgets better than



those of great men of art, for example, or classical music, literature and even cinema titles. The word “iPad” has transformed into a common noun from the proper one because it has been used as a definition of the electronic device of a certain kind so wide and frequently that people started using it to name any digital tablet, no matter what brand it actually belongs to.

**Conclusion.** So, this is how modern tendencies affect our comprehension of the text written and performed by a poet in a classical way with the help of the technologies using which he feels guilty as if taking our time. At the end of his performance, Turk calls on the audience: “Look up from your phone, shut down that display, // stop watching this video, live life the real way”. It may be hard to believe that such simple words can make a sophisticated listener stop being glued to the screen of his or her “smart” device, but if it does – then Gary Turk’s mission as a poet, filmmaker and storyteller in the digital world is completed.

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## **REFLECTION OF THE PROBLEMS OF PARENTAL ABUSIVE IN MODERN LITERATURE**

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Family abuse is considered as physical or psychological violence in the family. There are such types of abuses as female, male and even children's. Today we will talk about the last type. According to the definition that the explanatory dictionary gives us «Child abuse is the physical, sexual or emotional maltreatment or neglect of a child or children» [1]. Nowadays the topic of the abuse has become a serious problem. Everyday millions of children face with that problem in their families. Many things have been done to show the seriousness of the problem.

After a series of researches, we can say that this topic is clearly reflected in both children and adult literature, as the authors consider it necessary to draw public attention to this important issue. Such authors as Stephen King, Charlotte Bronte and Joanne Rowling are not the last figures in the literature world. They influence both on children and adults by their works. These writers show us in their works how it is important to pay attention to children's problems and what consequences it can lead to if we will ignore them.

The aim of our research is to study the problems of parental abuse and mistreating in S. King’s novel «Carrie».

**Material and methods.** As a material we used modern literature on the problem of parental violence. Our research is based on the comparative method.

**Findings and their discussion.** The most acute theme of family abuse is mentioned in Stephen King's novel «Carrie». In this novel generation gap, a difficult youth and the transformation of a child into a young lady are shown. The main character on the path to self-knowledge has to go through such difficulties as rejection among peers, puberty and conflicts with teachers. But her main problem is the lack of support from her mother.

As we know, a mother for a girl should be a source of inspiration and an example of what kind of woman a young lady should become. Facing with the difficulties of puberty, the main character of the novel "Carrie" doesn't receive not only sympathy from her mother, but even the basic knowledge about what is growing up.

«—Why didn't you tell me? — she cried. —Oh Momma, I was so scared! And the girls all made fun and threw things and... Momma had been walking toward her, and now her hand flashed with sudden limber speed, a hard hand, laundry-callused and muscled. It struck her backhand across the jaw and Carrie fell down in the doorway between the hall and the living room, weeping loudly» [2].

Here author presents us a situation where a girl experiences the beginning of puberty. But instead of support from her mother, she receives only harsh criticism and physical abuse. Carrie's mother justifies herself that it's all done for the good of her daughter. She protects her daughter so fanatically that she does not even allow her to communicate with other people. And when Carrie asks for permission to go to the prom with a boyfriend, she gets a strict ban.

«—Boys. Yes, boys come next. After the blood the boys come. Like sniffing dogs, grinning and slobbering, trying to find out where that smell is. That... smell! — She swung her whole arm into the blow, and the sound of her palm against Carrie's face was like that flat sound of a leather belt being snapped in air» [2].

Such overexcessive custody, as we can judge from the studies of psychologists and many literature works, can lead to very disastrous consequences. First of all that way of behaving makes children stay away from socializing. They become moody and introverts. Secondly children begin to move away from their parents. They behave according to a different model of behavior, completely opposite to the one that their parents are trying to teach them. This is what happened in the novel of Stephen King. At the end of the book, a cornered girl avenges her mother and the entire world. As she possesses magical powers, she unleashes all her anger on the Chamberlain town and all its inhabitants.

«A disaster of major proportions has struck the town of Chamberlain, Maine, tonight. A fire, believed to have begun at Ewen high school during school dance, has spread to the downtown area, resulting in multiple explosions that leveled much of the downtown area. A residential area to the West of the downtown area is also reported to be burning. However, most concern at this time is over the high school where a junior-senior prom was being held. It is believed that many of the prom-goers were trapped inside. A Westover fire official summoned to the scene said the known total of dead» [2].

These lines show us how abuse by parents and peers can negatively affect a growing person. The reporter shows us the damage power of an offended teenager, by her power she destroyed the school and city, killed the students and citizens. Of course in real life it won't cause so many troubles as Carrie did. But we shouldn't forget about all the numerous violent crimes like murders, steals and some others that were made by offended teenagers. So, in childhood crimes the only people who can be blamed are parents. Their mistreating and abusing their children can influence on them very much, because children learn everything from their parents either it's good or bad.

**Conclusion.** Based on the context of the book, we can conclude that it is very important for parents not to overdo with guardianship and treat their children in proper way. Some parents take the strictest measures like physical or mental punishment to make them more obedient. Of course, each parent thinks he does the best for his child, but sometimes they can forget that their children are not initiative puppets and even not means for getting rid of anger. It is important to set the right path, but it is even more important to give the child the right to choose. He or she should define for himself what is right and what is wrong. After all, every child is a person.

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## **THEMES OF MYSOGYNY AND GENDER IN THE SHAKESPEARE'S “THE TAMING OF THE SHREW” AND THEIR REFLECTION IN OTHER GENRES**

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Gender and misogyny are the key themes in a famous Shakespeare's play “The taming of the Shrew”. Many episodes of abusing a woman are shown to cause a laugh. Moreover, this story became a source of inspiration for the works of the next centuries. For example, a 1980 Italian film ‘Taming of the Scoundrel’ directed by Franco Castellano and Giuseppe Moccia. There's a particularly huge difference on which we'd like to look upon. And what we mean is the fact that the same types of characters that supposed to be identical in this or that way but they are actually not. Why's that so?

The aim of our research is to have a modern look on these two works and to identify how the key themes are moving towards centuries.

**Material and methods.** The original play “The taming of the Shrew” written by Shakespeare and a 1980 film “Taming of the Scoundrel” were used as

the materials of this work. The methods were the following: the comparative method and the research method.

**Findings and their discussion.** Let's try to compare the characters of the shrew and the scoundrel. What do they both have in common? It's a bad and violent personality. Katharina and Ilia behave aggressively while their interactions with people. Does Ilia have some particular reasons why he's like that? We do not really know because his background is hidden. It's quite different if we are talking about Katharina. If we analyze her father's attitude towards her, it comes up with an idea that the shrew is so bad-tempered and prone to violence because she doesn't feel loved by her own family. And here is a proof from the original play:

BAPTISTA

Gentlemen, that I may soon make good

What I have said, Bianca, get you in:

And let it not displease thee, good Bianca,

For I will love thee ne'er the less, my girl. [1, p. 45]

What is completely clear according to these words of Baptista is that he loves only his younger daughter because she is more feminine in her character: calm, polite and submissive. More than that, he doesn't care about the other daughter and her feelings. We suppose, that it's because she was not interested in typical for that period various female things like marriage, etiquette, and needlework. She has an active temperament to our point of view. So, if Katharina doesn't get any love, care and respect from her family, just because of being who she is, then how she supposes to respect and love others?

Actually, we also have two characters which try to tame the bad-tempered ones. They are represented by a man in the original play and by a woman in the Italian film. It's noticeable that their way of building relationships with people of rather complicated temperament differ as well.

So, what's the process of the taming of the shrew in Shakespeare's story?

Petruchio forcing Katherine into the traditionally obedient role of a wife.

Katherine's inflexibility and strong will cause her to be denigrated, insulted, and abused throughout the play. And that's the exact aspect which makes Shakespeare's play rather sexist and misogynistic, especially as it showcases Petruchio's abusing Katherine for comedic value.

To be more aware of the situation which is going on in the play we'd like to look at the important quotes in *The Taming of the Shrew* related to the taming itself.

Petruchio:

For I am he born to tame you, Kate,

And bring you from a wild Kate to a Kate

Conformable as other household Kates [1, p. 67].

According to these words of Petruchio, we can see that he never really cared about Katherine's personality by saying that her present state and character are something that shouldn't even exist. Of course, in a woman's nature, because

it's somehow okay for him to abuse a young girl, who is emotionally unstable because of the changes in her everyday life. As we can remember, he takes her from home on the next day after their wedding, so she could not have any connection with the people she knows.

Petruchio:

I will be master of what is mine own.  
She is my goods, my chattels; she is my house,  
My household stuff, my field, my barn,  
My horse, my ox, my ass, my anything [1, p.67].

One more quote related to the same problematic. Petruchio even uses "goods", "stuff" in relation to his new young wife. In this or that way, it reflects the attitude towards women for many centuries.

Petruchio:

Thus have I politicly begun my reign,  
And 'tis my hope to end successfully.  
My falcon now is sharp and passing empty,  
And, till she stoop, she must not be full-gorged,  
For then she never looks upon her lure.

Another way I ha man my haggard,  
To make her come and know her keeper's call . [1, p.68]

All these three quotes have one thing in common. It's a fact that there is a hidden symbol and not only Katherine but every woman is compared to it and stands for it. The elements from the text such as "bring you from a wild Kate to a household Kate", or even "to make her come and know her keeper's call" give a certain association with an animal.

And now, let's move to the film, where the tamer is a woman. How she tries to deal with the scoundrel? Do we actually see her being abusive on her way to change his tough character? On the contrary, Lisa attempts to do that by being extremely nice to him. For example, on their first dinner she appears to him wearing a sophisticated dress. And by the way, to build up the parallel we can remember the original play, when Petruchio came to their wedding with Katherine wearing neglected clothes.

Next, I'd like to mention the fact that in the film the tamer really cares about the scoundrel's personality in general: his tastes, interests and motives. Moreover, Lisa lets him be impolite and rude towards her. And, as an outcome, she fails most of the attempts to tame the scoundrel. Actually, it leads to a controversial effect and makes viewers ask themselves a question: "Who is the real tamer here?" There is no such effect in Shakespeare's play. In contrast, Petruchio mostly never fails in his attempts to make Katherine obedient. However, it's hard to claim either this difference exists because her methods were not harsh and abusive at all or the purpose is to show that a woman can't be a good tamer. But we can also suggest that these statements are somehow interdependent.



**Conclusion** Thus, despite of the time passed after Shakespeare's play and gender switch of the main role models, it's possible to claim that the ideas of misogyny and sexism still take their place even after centuries. In other words, a woman just has to be pretty, calm and obedient no matter what role she takes: the shrew or the tamer.

1. Shakespeare, W. The Taming of the Shrew / A. Thompson. - London: King's College, 2017. – 224 p.

## **CODE SWITCHING IN CORPORATE MEDIA TEXTS**

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The number of research activities dedicated to corporate discourse has been increasing over the past decades [1, 2, 3, 4]. Corporate discourse is a set of social practices comprised in a cohesive discourse system [4]. This type of discourse is widely seen as a dominant one. According to Gerlinde Maunter, discourse is central to corporate life, it not only accompanies corporate activity, but often effectively constitutes it [3]. Researcher Sylvia Jaworska admits that it's hardly possible to imagine a corporation without any form of discourse that 'talks' and 'writes' corporations into being [4].

Corporate media discourse is a part of organizational communication that takes place via technical communication channels: corporate press, radio, television, corporate website and others. The list of corporate media is constantly expanding due to the development of modern technologies. Currently, the list is replenished with new formats of Internet communication: blogs, social networks.

One of the reasons for the popularity of Internet communication formats is their ability to reach a wide audience that is not limited to one country or even a continent. Under these conditions, the choice of language is one of the most important factors that can narrow or expand the reach of the target audience.

In an effort to establish contact with a wide audience of foreign customers, Belarusian IT companies publish texts in English on official corporate websites or pages on social networks "Linkedin" or "Twitter".

In situations of communication with potential or current employees, the choice of Russian, English and Belarusian is not limited to the need to convey the necessary information in a way that is understandable to the target audience (knowledge of English is an important requirement for IT specialists), but performs a wider range of pragmatic functions.

The purpose of this research paper is to describe the most common cases of language alternation in corporate media discourse of Belarusian IT-companies, exemplified by the corporate media texts, published on the «Facebook, and define the pragmatic functions of the language choice in these texts, taking into

account the topics, content and linguistic features of these corporate publications.

**Material and methods.** The material for the study was the texts posted on the official pages of 50 Belarusian IT companies on the social network Facebook. These texts were selected by continuous sampling.

**Findings and their discussion.** Belarusian IT companies communicate on the Facebook social network using Russian, English, or Belarusian. The choice of the language depends on the topics and content of publications.

Publications in English are usually dedicated to the achievements of the company, its commercial success, the implementation of major projects, the receipt of awards or top positions in prestigious ratings: <...> *continues to grow and develop.* <...> *On May 27, we opened a new office on the 14<sup>th</sup> floor. Now the team is located on 4 floors of the Omega Tower business center and is ready for new challenges!* A characteristic feature of the texts in English is the formal style of communication, a concise and businesslike way of presenting facts: *Working on our new project of “Atlantis Hotel 3D Digital Prototype” for AR/Mobile App; Meet us at the Emerge conference tomorrow.*

Publications in Russian contain information about corporate life, events, competitions and job offers: *Видно без всяких линз – сколько счастливых лиц. Спасибо лучшей команде за **крутейшую** <...> Birthday (It can be seen without any lenses – how many happy faces. Thanks to the best team for the coolest <...> Birthday).*

The manner of presenting information is informal. Communication seems to be friendly and personal. These publications include:

- colloquial words: *Для тех, кто еще не знаком с таким замечательным паттерном как **render prop** – вот отличная **статейка** с детальным сравнением с другими реакт паттернами (For those who are not familiar with such a wonderful pattern as **render prop** – here is an excellent article with a detailed comparison with other react patterns); Хочешь построить карьеру в **крутой** IT – компании? Это твой шанс! (Do you want to build a career in a cool IT company? This is your chance!);*

- inversions: *Когда помимо **творчества технического** в тебе просыпаются задатки креативного художника. Да! Это Dev Day! (When in addition to technical creativity, the makings of a creative artist wake up in you. Yes! This is Dev Day!);*

- professional slang: *Наши ребята “Brave Sitecorians” сделали модуль, который интегрируется в сам #Sitecore и позволяет **трекать** изменение контента в **real-time** и создавать для этих изменений **коммиты** (Our guys “Brave Sitecorians” made a module that integrates with #Sitecore itself and allows you to track content changes in real-time and create commits for these changes).*

The Belarusian language is rarely used in corporate media texts. The publications in the Belarusian language touch upon the topics of Belarusian culture and history. The use of this language emphasizes the national nature of

messages, appeal to spiritual, traditional and historical values: *Карпаратыўнае падарожжа ў часе. Прасочылі жыццёвы шлях караля Міндоўга з часу яго выхаду на палітычную арэну да моманту гібелі ад рук змоўшчыкаў. Экскурсія-анімацыя пра заснавальніка Вялікага Княства Літоўскага, першага і апошняга караля Літвы – Міндоўга; (Corporate travel back in time. Followed the life path of the king Mindaugas since he entered the political arena until death by the conspirators hands. Animated tour about the founder of the Grand Duchy of Lithuania, the first and the last king of Lithuania – Mindaugas).*

**Conclusion.** Switching from English to Russian, or Belarussian in corporate texts, published on “Facebook”, largely depends on topics and content of these publications. Texts in the Russian language are dedicated to the description of the corporate internal life in a friendly and informal manner. The choice of the language and special linguistic means is aimed at minimizing communicative distance and establishing closer relations between a company and its audience. The Belarussian language is used to appeal to national identity, cultural values and build common ground between a company and its audience.

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## WAYS OF ENGLISH SLANG FORMATION (ON THE DATA OF SOCIAL NETWORKS)

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The development of computer technologies and the advent of the Internet have made communication more available and intense. Nowadays, slang plays a major role in daily interaction between people, especially in social networks. Therefore, the phenomenon of slang is a relevant field of study for linguistics.

The purpose of the research is to reveal types of English slang according to ways of formation on the data of social networks.

**Material and methods.** The material for the study is slang gathered from Twitter, Facebook and Instagram. The following research methods have been applied: quantitative, descriptive, method of component analysis of the word. Classification of the data is based on the types of slang proposed by Coleman theory.

**Findings and their discussion.** Slang is non-standard use of words in a language [1, p. 12]. Such words and expressions are characterized by a high degree of informality, familiarity, vocabulary richness. They are used by a specific group of people whose members are connected with some particular link, such as territory, age, subculture, and mainly occur in colloquial speech. The reasons for using slang are closely related to its characteristics such as informality, secrecy, innovativeness and expressiveness of vocabulary.

Slang can be subdivided into specific and general slang. Specific slang is language that speakers use to show their belonging to a group and establish solidarity with the other group members. It's often used to create one's identity, including such aspects as social status, geographical belongings, age, education, occupation, lifestyle and special interests (e.g. British slang, teenage slang, military slang, medical slang, music slang, college slang, etc.). General slang is language that's neither group- nor subject-restricted.

There are seven types of English slang according to word-formation, which can be: changing in meaning, conversion, changing in form, changing in spelling, abbreviation, borrowing, imitating sound [1, p. 31–43]. This classification was used to analyze the slang found in social networks. Here are the findings of the research:

1. English slang created by changes in meaning.

Slang can be derived from Standard English words by changing their meaning. For example, the following slang words found in social networks mean: *burn* – ‘to insult someone, usually in a comedic sort of way’ [2], *salty* – ‘being upset, angry, or bitter as a result of being made fun of or embarrassed’ [2], *extra* – ‘excessive, dramatic behavior’ [2], *snatched* – ‘anything that looks great’ [3], *lurker* – ‘someone who browses social media, social media profiles, and forums, but without interacting or posting anything themselves’ [2], *savage* – ‘a person who does not care about the consequences of his or her actions’ [3], *tea* – ‘gossip’ [2], *fierce* – ‘powerful, fashionable and beautiful’ [2], *flex* – ‘bragging about something’ [2], *viral* – ‘popular on the Internet’ [3], *wild* – ‘hilarious or weird’ [3].

2. English slang created by conversion.

Standard English words can shift in grammatical function (by changing part of speech, or conversion) without undergoing an alternative in form and become slang. These are the examples of the research: the adjective *easy* has shifted to a verb that means ‘asking someone to calm down’ [2]. In a slang phrase *my bad* the adjective *bad* has become a noun, meaning ‘fault’ [3]. Slang word *fly* represents an adjective with the meaning of ‘amazing and awesome’ [2]. The next examples illustrate how conversion may be accompanied by

changing in meaning in the formation of slang. The word *lit* (the past participle form of the verb *to light*) has become an adjective with the meaning ‘cool, fun, exciting’ [2]; *woke* (the past simple of the verb *to wake*) has shifted to adjective, which means ‘being aware of issues concerning social justice’ [2]. The following examples indicate the shift from proper noun to adjective and verb: in social networks context *Gucci* means ‘good, great and fresh’ [2], *Bible* – ‘to tell the truth’ [2].

3. English slang created by changes in form.

Standard English words can also be combined in peculiar and humorous ways to create slang by putting aside word as unity. For example, slang word *facepalm* (‘a gesture in which the palm of one's hand is brought to one's face as an expression of disappointment, dismay or embarrassment’ [2]) is formed by a combination of the nouns *face* and *palm*. Other examples: *Instaworthy* (‘moments and pictures that are worth sharing on social media, specifically Instagram’ [2]), *Twitter egg* (‘Internet troll’ [2]).

4. English slang created by abbreviation.

Several types of abbreviations can form slang: omitting the beginning or the end of the word such as *sup* for ‘what's up’ [2] and *bro* for ‘brother’ [2]; combining word such as *vlog* for ‘a video log’ [3]; initialism (initial letters pronounced separately) such as *HIFW* (‘How I Feel When’ [2]) and *JSYK* (‘Just So You Know’ [2]) and the acronym (initial letters pronounced as a word) such as *LOL* (‘Laughing Out Loud’ [2]) and *BAE* (‘Before Anyone Else’ [2]).

5. English slang created by changes in spelling.

English Slangs could be derived from a wide range of Standard English by manipulating sound in a word. At least, there are two forms of such changing: first, by inserting the symbol which represents a sound, such as *L8er* for ‘later’, *m8* – ‘mate’, *10x* – ‘thanks’, *CU* – ‘see you’ [2]; and second, respelling word such as *tha* – respelling of ‘the’, *pwetty*– ‘pretty’, *nigh* – ‘night’, *gurl* – ‘girl’, *gawjuss* – ‘gorgeous’, *thru* – ‘through’ [2].

As far as the formation of slang by borrowing and imitating sound is concerned, such examples haven't been found at this stage of the research, thus indicating that these ways of forming slang are less productive in the field of social networks.

**Conclusion.** Slang is non-standard use of words and expressions that are used by a specific group of people in order to establish solidarity, maintain secrecy and enrich the language. There are seven types of English slang according to word-formation that can be based on: changing in meaning, conversion, changing in form, changing in spelling, abbreviation, borrowing, imitating sound. The ongoing research has shown that the most productive ways of slang formation are changing in meaning, abbreviation and changing in sound. Less productive ways of slang formation include borrowing from other languages and imitating sound.



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## THE FORMATION OF A SECONDARY LINGUISTIC PERSONALITY AS AN EFFECTIVE MEANS OF MASTERING A FOREIGN LANGUAGE

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Human life requires constant development and improvement. Knowledge of at least one foreign language has become a necessity. Nowadays people are starting to learn or are already learning different languages because it gives them a chance to get a better job, be promoted or chosen for a prestigious post. To communicate with native speakers people must know not only grammatical and lexical aspects of the language but also apply this material in live communication. In order to achieve this goal a person must delve the depths of the language, its traditions and culture.

The purpose of our article is to analyze characteristics of forming secondary linguistic personality.

**Material and methods.** The study was conducted in Orsha College. We used methods of analysis and generalization.

**Findings and their discussion.** Linguistic personality is a subject of communication, a person who creates a language text, comprehends it, uses it orally or in writing [1, p. 54].

The formation of “secondary language personality” is described by I.I. Khaleeva as a process of accumulation of a set of abilities (competences) and personal qualities which prepare a person for foreign language communication in a multi-cultural field. It consists of mastering the verbal-semantic code of the studied language, that is ,the "language picture of the world" of native speakers and the "global" (conceptual) picture of the world allowing a person to understand a new social reality for him [2, p. 68]. The principal goal of teaching a foreign language is to develop student's secondary language personality traits making him an effective participant in intercultural communication.

A secondary language personality is based on the primary language personality formed by the native language of the person. The formation of a secondary language personality helps to use a foreign language effectively in various fields of activity and develop yourself in the language, educational and socio-cultural environment.

The term “secondary linguistic personality” was put forward by the linguist I.I. Haleeva in the 1990s. She took the model of language personality by Y.N. Karaulov.

When learning foreign languages a person must realize his own uniqueness in the cultural and historical aspect and the uniqueness of the subjects of foreign culture. That’s why, when considering the concept of a secondary linguistic personality, it’s necessary to single out characteristics that will be indicators of its formation.

The effectiveness of interaction with representatives who speak the studied language is one of the main criteria for the formation of a secondary language personality. A person masters the norms of the language gradually, learns the mentality of people, learns etiquette and adopts certain patterns of behavior which allow him to communicate without difficulty with speakers of a non-native language [1, p. 253].

The formed secondary language personality must possess the verbal and semantic code of the language (grammar, vocabulary, syntax, etc.). To compare a word with its equivalent in the native language is not enough. It’s necessary to look deep into the structure of the studied language and differentiate shades of meaning of the word [1, p. 254].

The style of speech is of great importance. Studying a foreign language a person learns certain grammatical constructions which are later used in the process of communication. From the point of view of grammar the speech of a person is correct, but from the point of view of the native speaker such speech can sound too mechanical and artificial. For instance, the sentence "What did you buy in the store?" is grammatically correct, but the native speaker often avoids such cumbersome constructions and asks: "What did you buy?". It is essential to learn the language not only through textbooks, but also socialize with native speakers to achieve the effect of "live" communication

Mastering the phonetic norms of the language must be based on the country or region whose language is studied. The student most often focuses on the standard, the language and its pronunciation, which is typical of the capital. For example, someone who learns Russian will focus on the Moscow or St. Petersburg pronunciation, and the one who learns English will take the British or American dialect as a sample [2, p.230].

Knowledge of patterns of behavior is extremely important when learning a foreign language. When communicating with a native speaker, it is necessary to take into account the nonverbal means used - gestures, facial expressions, posture and distance.

The last criterion to be mentioned is the motivational-personal sphere, which includes the motivational structure, values and individual personality traits. When learning English and culture, the student has to create his picture of the world anew, but with the knowledge of moral values or behaviors, he can unintentionally adopt some cultural features.

The concepts of "linguistic personality" and "secondary linguistic personality" aren't independent phenomena. The productivity of learning a foreign language will be influenced by the knowledge, skills and abilities formed on the basis of the native language. If the structure of the native language isn't well studied and consolidated by the student there may be problems in learning the studied language.

We can also single out some more factors that are major in the formation of secondary language personality: age, learners' interests, intellect, standard of living, cognitive capabilities.

One of the most important aspects involved in the development of the secondary language personality is the motivation of the student: what motivates him to learn a particular language. We conducted a survey where the students had to answer two questions: "Why do I study a foreign language?" and "Why did I choose this language?" According to it our students learn a foreign language to expand their horizons (1%), for travelling (40%), for future work (40%), for interest (14%) or self-development (5%).

Under the influence of the first motivation a person learns a foreign language to achieve practical, business goals [3, p. 53].

Under the influence of the second motivation, a person seeks to join the culture of native speakers. This type of motivation is associated with the development of secondary language personality, as the second language will contribute to personal growth and expansion of the worldview of the student [1, p. 54].

**Conclusion.** Thus, the formation of a secondary language personality of the student is influenced by both its individual characteristics (depth of knowledge of the native language and patterns of behavior, age, motivation, cognitive abilities) and psychological and pedagogical factors. Our aim is to create such environment where students can learn not only the main aspects of the language (grammar, vocabulary, phonetics) but also some peculiar features typical of the country of the native speaker. Teachers must incorporate some linguistic and cultural peculiarities into their system of exercises, make up unusual tasks and create some environment favourable for intercultural communication.

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## TALE AND REALITY IN P. TRAVERS' BOOKS ABOUT MARY POPPINS

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Series of books about Mary Poppins represents one of the examples of British literary tales. The main idea of P. Travers' tales is the existence of a miracle and the fact that all children tend to forget about it during their growing up period. The relevance of the theme of the presented work is due to the need to study the problems of the series of fairy tales about "Mary Poppins" written by P. Travers.

The purpose of the study is to explore the nature of fairy tales in the Mary Poppins series in terms of ideological content and artistic features.

**Material and methods.** The study is based on P. Travers' novels here are the following approaches that have been used during the research: descriptive and cultural-historical methods.

**Findings and their discussion.** In the novels, everything is told from the narrator's point of view, wise and objective one. Having a universal education, she could say about herself in the following words: "My collection of Facts, Information and Data has no equal in the world!" But the highest wisdom for the writer is to show that the sky is a little higher than the eagle flies, that patience is stronger than anything in the world, and that the main knowledge lies not in encyclopedias and textbooks, but in the human heart.

Unrivalled Mary Poppins is shown as adamant, elegant, mocking, generous, she opens to her pupils, Jane and Michael, a remarkable world, fabulous and fair. The story of their relationships is full of magical, interesting, funny and amazing events and yet permeated with sadness, because the miracle does not last long: the statue, which miraculously came to life cannot stay forever and must return to its former place, the language of birds we can also understand only to the first tooth, and fly only to the first sad thought. And Mary Poppins knows that one day she will have to leave house N17.

As well as in L. Carroll's "Alice in Wonderland" the series of fairy tales about Mary Poppins reveals a lot of English folk songs and poems, fairy tales and sayings. One of them is the old English saying "a Cat can look at a king". Based on this saying P. Travers deploy in the whole narrative of the tale.

The writer tries to demonstrate the ordinary life of modern England with its troubles and difficulties from the perception of the child. At the same time, there are also problems appearing in the family, which is inherent in English children's literature.

Pamela Travers initially agreed with the views that the book "Mary Poppins" was written under the influence of the novel about Peter Pan. In both works, the conflict of childhood and adulthood takes place upon the readers. But

if Barry James decided to leave this conflict unsettled, as Pen remains a teenager forever, and Wendy grew up and completely forgot about him. Travers solved the problem in a rather extraordinary way. The magical worldview inherent in childhood and the perception of life remains in Mary Poppins, but she is very deeply hidden under the imperturbable appearance of a confident and adult woman. As befits a good-natured nurse, Mary Poppins looks stern and conservative. On any interrogations of children she or grins, or covers up for superficial statements: «I'm not an encyclopedia», «If you know too much you will get old too soon», «One more word, and I...», «there are reasons for that». Nevertheless, behind this unattainable gaze, a true sorceress is masked. It has been repeatedly noted that Mary Poppins, in any case, does not work magic openly in public. Magic, if the very, is beginning to happen everywhere, far she comes. Despite this, Poppins steadily denies any involvement in the miracles that happen.

In P. Travers's book, there are several heroes from folk art such as the cat which looks at the king, or the cow from the folk song, which leapt the stars. Almost the entire magic happen fully in-style English eccentrics, for example, two fingers, which Miss Corey breaks off as it turns out were lollipops, people get caught on baitfish and camping on.

The moral choice of the main character is one of the relevant issue raised by the author: why exactly a nurse is responsible for children not another person with a different profession? There is nothing strange in the fact that the choice fell on the nanny. As we know, in that era, for every white family with many children it was more the canon than a necessity. It is because of this that the influence of the nurse in the initial stage of the child's upbringing was much higher than the influence of the mother and father.

But for the Banks family to hire a nanny is not an easy task, as they have a hard period because of the banking crisis. But not for nothing that Mr. banks says to his wife: "Choose, my dear, one of two things: either a clean, pretty, new house or four children. I cannot provide you with both" [1, p. 23].

**Conclusion.** We can conclude that using the genre of "story-tale", P. Travers not only gives her characters the ability to create magic but also generates in readers a belief in a miracle, in the possibility of the existence of this miracle in the real world – primarily in the world of children. All the miracles performed by Mary Poppins have value only in the world of children, their fantasies and dreams.

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## ENGLISH LOAN WORDS IN THE WORLD OF RUSSIAN FASHION

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Daily people say English loan words and they even don't notice that. Anglicisms penetrated all Russian spheres: show business, cinema, social media, daily life and fashion and beauty world. Nowadays ominous concerns are spoken towards the massive influx of the English loan words which can lead to depreciating of the Russian language. That's why considering problems, which are connected with the theory and practical aspects of Anglicisms, is mostly notional under current conditions. But language is a mechanism which develops itself, which can purify itself and get rid of unnecessary things. That happens even with the Anglicisms which are considered in the research paper.

The work aim is to examine the particularity of clothes names, accessories, footwear, make-up, profession and single words connected with the world of fashion.

**Material and methods.** The material of the research is English loan words. Herewith there are the following methods that have been used during the research: continuous sampling method, descriptive method; classification, interpretation and analysis.

**Findings and their discussion.** From the very Peter's I epoch the Russian language was influenced by western culture, which caused the penetration of a huge amount of loan words in Russian. Loanwords are a natural phenomenon which reflects political, economic, social and cultural Russia contact with other countries [1].

We will start with the well-known word «принт». This word is used not only in the fashion world but also in daily life: print advertising, prints on the T-shirts, cups, mouse pad, pillows, etc. In the English version, it's 'print', which means a draft embossed on a cloth. The meaning of the word is the following. It's an image (draft, inscription or photo) which is applied on a cloth, paper or another surface in a particular way.

The next word is the well-known «секонд-хенд». There are a lot of these stores in almost every cities and country. 'Second' from English is «второй» and 'hand' – рука. So, second-hand is worn before clothes.

By examining the fashion world we face the nest word - «тренд». From English 'trend' means «тенденция». It's a new development in clothing, make-up, etc.

One more important and well-known word is «бренд» (and also «брендовый»). It's a type of product made by a particular company. Translating from English 'brand' is 'торговая марка, бренд'. The origin of the word is interesting: it begins from farming. Shepherd thought out different ways to differentiate their cows from somebody else's cows. For example, the shepherds

tore off cows' ears and staked a distinctive scar, they took a stamp, heated it in a fire and branded. From English 'brand' means «клеймо».

The origin of the words which are widely-spread and well used, «мини» and «макси» are also English. English 'mini' means «короткая длина» and 'maxi' is «максимальный». As for the meaning of the words, 'mini' is a skirt, dress or coat of the minimum length and 'maxi' is a long skirt, dress, coat (longer than usual).

The word «рейтинг» can be often seen while looking through the magazine (and also the adjective «рейтинговый»). From the English language 'rate' is «оценивать». A gerund 'rating' – рейтинг descended from exactly from the English verb 'rate'. 'Rating' means a measurement of how good or popular someone or something is.

It should not go without mention that there is a word in Russian which every girl or woman constantly uses. It's «мэйкап». From English 'make-up' is translated as «макияж, косметика, грим» and it means coloured substances used on someone's face to improve or change the appearance.

When people go shopping we prefer the English word «шопинг» ('shopping') that actually means buying clothes in shops. From English 'shopping' is «поход за покупками». In English 'shopping' is gerund formed from the noun 'shop'. «Шопоголик» is a single-root to the word «шопинг». 'Shopaholic' means a person who enjoys shopping very much and does it a lot.

The net English loan word is «лук». It's a person's appearance, especially how attractive he or she is. From English 'look' is translated as «вид, внешность, облик».

In increasing frequency when people buy anything and pay attention to the country of origin, we say «мэйд ин» [Чайна, Раша, etc.]. Russian «мэйд ин» comes from English 'made in' which is translated literally as «сделано в».

The Russian language borrowed a well-known word «лэйбл» from the English language. English 'label' is translated in Russian as «ярлык, этикетка, бирка». 'Label' means a piece of paper or other material that gives you information about the object it is attached to.

The word «фешенебельный» is also worth mentioning. It's popular at a particular time or among a particular group of people. From English 'fashionable' is translated as «модный».

It's worth noting that we use English abbreviations while trying on and buying clothes: XS, S (small, маленький, 42 size), M (middle, средний, 44-46 size), L (large, большой, 48 size), XL (extra-large, очень большой, 50 size), XXL (52 size).

**Conclusion.** In virtue of the undertaken study, we can conclude that words have penetrated from English into Russian from the earliest times and they are still penetrating. The Russian language is considered to be the richest language in the word but in spite of that, it borrows new words from other languages, especially from English. Fashion is what unites different cultures of the world

and it's not surprising that a lot of English words are used in Russian. Thanks to these words our vocabulary is refilled with new words. The main problem is that people often say loan words and they even don't know the meaning of the words. That's why it's necessary to know the meaning of the loan word before saying it. And that is what this research paper is denoted: to research Anglicisms in Russian and to define their meaning.

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## SYMBOLISM IN THE SONNETS OF W. SHAKESPEARE

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April 23, 2019 was the 455th anniversary of the brilliant English writer, playwright, a man whose destiny was to become one of the most outstanding writers of all time. Shakespeare became the history of literature and mankind, there by “aggregate”, which compares the development of European culture till this day.

The relevance of the topic of the article is due to the need to study symbolism in Shakespeare's sonnets, taking into account modern literary trends.

The purpose of the study: to reveal the themes of love, beauty and youth in Shakespeare's sonnets.

**Material and methods.** The material of the study were selected sonnets of W. Shakespeare. The methods: analytical method, the method of comparative analysis.

**Findings and their discussion.** Sonnet-lyrical genre of European literature, which exists for the seventh century. This genre occupies an important place in the literature of the Renaissance and in the works of W. Shakespeare. In total, he wrote 154 sonnets. While the sonnets of all the great poets were intended for their lovers and beautiful ladies, Shakespeare has only 25 sonnets out of 154 dedicated to a woman, and all the rest to his friend.

To create sonnets Shakespeare did not need original themes, the poet introduced readers to the usual lyrical subjects, but in a new poetic light.

Symbols take a special place in Shakespeare's creativity. A writer uses many kinds of symbols in his sonnets. Predominantly, these are symbols of trees

and flowers. Flowers and trees figure in all sonnets to demonstrate the passage of time, the transience of human's life, the process of aging, and their magnificence. As a rule, roses symbolize beautiful love, Shakespeare uses this symbol in the sonnets, analyzing their attractiveness and scent in relation to young people. From time to time Shakespeare cross-reference flowers and weeds with beauty and ugliness. In such comparisons, spoiled, putrid flowers are much worse than weeds, that is, beauty that rots from bad character is worse than original ugliness. Besotted with love, the author in another sonnet compares the blooming flowers to the beauty of a young girl, noting in sonnets 98 and 99 that the flowers obtained their bloom and smell from her: "to the early Violet I rebuked/the Wicked steals her sweet smell/From your mouth, and each petal/takes its velvet from you by stealth.» [1. p, 47].

Shakespeare also uses the stars in his sonnets to describe destiny, a common poetic figure of speech, but also to explore the nature of free will. Many sonneteers apply to the image of destiny, symbolized by the stars, to show and establish that their love is constant and ordained. Shakespeare argues that he relies on his eyes, not fate, to make decisions. The writer seems to "read" that the luck and beauty of a young man will pass to his children, if he has them. In Shakespeare's time, people tended to believe in astrology, even scientists made great results in astronomy and cosmology, the metaphysical system for ordering the whole Universe. In the 25th sonnet of Shakespeare, the author admits that he was unlucky in the stars, but lucky in love, thereby removing his happiness from the heavenly bodies and transferring it to the earthly sphere "Who under the star is born happy/Proud of fame, title and power/and I am humbly awarded by fate/and for me love is the source of happiness" [1. p, 16].

Weather and seasons also play a huge role in Shakespeare's sonnets. They replace human emotions: the author conveys his premonition of death, likening himself to autumn, the time when objects of nature begin to decompose and prepare for winter or death. In sonnet 98, the author says that he feels that it is winter instead of the april, because he and the beautiful girl are not together "there Was winter in me, and the glitter of spring / seemed to me the shadow of a sweet shadow" [1. C, 47]. One of the most famous, the 18th sonnet poet begins with the rhetorical question: "Should I compare thee to a summer's day?" [1, c. 12], then shows that his love is even more beautiful than this comparison. When Shakespeare says, "Thy eternal summer shall not fade away," he uses a metaphor that suggests that the beloved will always be young to him, that she has a radiance and vitality that will be eternal. The poet turns to death, believing that it will never claim his beloved, who will never die but will always live in his heart. Then the lyrical hero says that his poetic word will give the beloved "life", by "life" it is meant that the image of the beloved will remain immortal on the pages of books. Immortality for poet-category metaphysical, spiritual: "Among survivors you regulation until/Until breathes thumping and sees gaze" [1, p. 12].

The body is perishable, but memory, love and soul are eternal. The seasons that accompany the poetic image in the love sonnets of W. Shakespeare, mainly spring and summer. Spring is a virtuous youth, a time of waiting for happiness. Summer is traditionally a time in life when a person fully “blossoms”, it is a time of love and joy.

**Conclusion.** The symbols allow to make sonnets more emotional, deep and sincere. They fill the works of W. Shakespeare with sincerity of feelings.

In science, it is proved that color is a kind of resource, acting on the human psyche for good or bad, regardless of its consciousness.

Shakespeare could perceive a large abundance of color shades, use them, making these color symbols with deep meaning.

1. Shakespeare, W. Sonnets. Richard III / W. Shakespeare. – M.: Olymp, 2001. – 327 p.

## **THE COMPONENTS ANALYSIS OF THE OF INDEPENDENT WORK AS A CONDITION OF SUCCESSFUL TEACHING A FOREIGN LANGUAGE**

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The emergence of modern technologies for teaching foreign languages is due to the evolutionary process caused by the change of priorities from the assimilation of made up knowledge in the classroom to the independent active cognitive activity of every student, taking into account their characteristics and capabilities.

The aim of our research is to carry out methodical analysis of independent work components in the process of learning a foreign language and investigate requirements for successful work.

**Material and methods.** The research was held on the basis of Vitebsk gymnasiums № 1 and 2 (52 students). The research methods: literature review on the subject and its critical analysis (works of E.I. Passov, N.D. Galskova, N.I. Gez, E.I. Solovova, T. P. Leontyeva, et al.), the observation of the teaching process and scientific analysis of English training.

**Findings and their discussion.** Effective organization of students' independent educational and cognitive activity presupposes taking into account its social, metacognitive and cognitive components [1, p. 145–147].

The social component is focused on the development of students' self-educational capacity by means of their intensive involvement in group or pair work in the classroom or outside the classroom in order to master a foreign language. Students' active interaction allows to find out various educational and cognitive strategies, to compare the degree of impact in joint communicative



activities, to correct or abandon the usual ways of solving verbal and cognitive tasks. Interaction helps students to understand their strong and weak points, transfer their experience to new situations and borrow the most successful strategies. These strategies represent ways of cross-fertilization of students' individual system of knowledge, their skills and habits, which allow them to compare, generalize and transform, if necessary, the accumulated experience. They include methods of cooperation in pairs and groups, mutual support and assistance in the process of solving communicative problems, etc.

The metacognitive component of independent educational and cognitive activity is focused on the development of students' skills of planning, self-management, critical reflection and self-esteem. This is the most essential component for the development of students' autonomy, since the mentioned above skills require both the student's and the teacher's focused attention. The teacher is to organize independent work so that students have the opportunity to apply various methods of planning, self-management and self-esteem, evaluate their effectiveness for themselves, and accumulate sufficient experience for further use. The teacher should show the effectiveness and importance of a particular method to achieve the goals, only in this case students will be able to transfer new skills to other activities. It is feasible to demonstrate memos with step-by-step instructions for educational tasks fulfillment to students, and then ask them to evaluate the degree of effectiveness of every "step". Paying attention to the metacognitive component of independent work the teacher should help students to realize and evaluate the quality of their mental activity and ways of its effective use: how to meet educational goals faster, more effectively and with less effort. To adjust and control the achievement of educational and cognitive goals students can use the following met cognitive strategies: ways of setting goals, activity monitoring, self-control, self-correction, and reflection.

The cognitive component of independent work is focused on the development of students' foreign verbal skills and habits, the formation of their linguistic and non-linguistic knowledge. Within this component students must develop the basic mental operations that allow them to accumulate language and speech experience: comparison, abstraction, generalization, concretization, analysis, synthesis. The teacher is to inform students about such cognitive strategies as ways of organizing and developing verbal memory, structuring and systematizing linguistic knowledge, interpreting and evaluating the communicative situation, choosing means of linguistic construction of a foreign language utterance, and models of culture-like non-verbal behavior.

The gradual expansion of students' autonomy will lead to the development of general educational and special skills. General educational skills include the ability to organize and allocate one's time, to single out primary and secondary things, to implement control and self-control of independent educational and cognitive activities. Special skills relate to aspects of language and types of

speech activity, for example: the ability to make a plan for oral utterance, to compare lexical and grammatical phenomena in native and foreign languages, to edit a written essay, etc.

**Conclusion.** A methodical analysis of independent work components in the process of learning a foreign language allows to draw the following conclusion: for the continuous effective development of students' independent activity it is important to follow such requirements as 1) the awareness of the activity purpose; 2) the knowledge of the completing task procedure; 3) the ability to see backbones in the task material, which facilitate overcoming difficulties in the course of independent work; 4) the development of skills and habits to use appropriate training aids (educational didactic material, audio or video recordings, reference books, etc.) for implementing tasks; 5) skills and habits development of self-control and self-correction.

1. Methods of teaching a foreign language / T. P. Leontyeva [et al.]; gen. ed. T.P. Leontyeva. – Minsk: Vysheishaya shkola, 2016. – 239 p.

## REFLECTION OF NATURALISM IN G. HAUPTMANN'S WORKS

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Naturalism is a complex literary phenomenon of the second half of the XIX century. This period is considered as a turning point in the history of German literature. German naturalism is not just a specific trend with any single social and literary-aesthetic program but the movement, united differences of political and artistic writer's ideology. The relevance of the work is determined by the need to identify the connection and mutual influence of the period of naturalism and the power of Hauptmann's work.

Naturalism was associated with the intensified class struggle of the German proletariat. This struggle got inspiration to many writers of the epoch to write works dedicated to that event, meaningfully and emotionally enriched their works. In the process of creating their works, naturalist authors relied on a precise study of life, working conditions of their characters. Most of the young writers paid special attention to the theme of the proletariat, conveyed in their works the pain and frustration of the working class, the bias of the authorities, the obvious social inequality. Writers-naturalists works allow to form the vivid images of the proletariat and to comprehend actual problems of this epoch.

The purpose of the study is to reveal the influence of the naturalism in G.Hauptmann's works.

**Material and methods.** As a material for the research the books by Huebsch and by Kataev were chosen. Methods of research are both general

scientific methods such as comparison, comparison, analysis and literary (comparative-historical).

**Findings and their discussion.** Gerhardt Hauptmann is one of the outstanding writers of naturalism. He began his career as an artist who was greatly influenced by naturalism, which is certainly evident in many of his works. He was endowed with the ability to respond sensitively to the actual problems of the era, to depict identified contrasts of the bourgeoisie. There weren't unworthy or worthy art subjects from G. Hauptmann's point of view. "Modern art is democratic," says K. Albery, one of the theorists of naturalism. - All people are equal for him: the king means as much as the proletarian" [1, p. 215].

In most works, G. Hauptmann described the object of discussion as the life of the working class. The call to solve the accumulated problems in society, the desire to reflect the modern reality significantly influenced his writing. He was one who was not afraid, so directly and clearly to show the cruelty and outrages of the surrounding bourgeoisie.

The events of the history of naturalism had a significant impact on the works of Hauptmann. An example is his socio-political drama "Weavers", the basis of the plot of which is a historical event-the uprising of Silesian weavers. Close attention to the characteristic social and moral conflicts of this era allows the author to approach the most realistic generalizations. The writer himself acted as an artist-innovator and was the first who captured in German drama the most important social conflicts of the era.

In the works of Hauptmann, social contradictions ("Rats", "Beaver coat") are visibly displayed, which, according to F. Meering, turned out to be "a reflection that throws on art the increasingly inflaming flame of the labour movement" [2, p.152]. He was one of the few who could so ably demonstrate the "social justice" of his time by denouncing the German state system.

In the works of Hauptmann revealed complex ideological and aesthetic throwing. This feature of the writer's work was noted not only in literary criticism but also in the statements of contemporary German writers: "in the works of Hauptmann," wrote Thomas Mann, "many literary currents of the period merged, - neo-romanticism turned into realism, militant exposure of reality intertwined with poetry" [2, p. 270].

Hauptmann stood out from the rest of the naturalist writers in that he had no specific creative directions. It depended directly on the era itself, which, as we already know, had no definite direction. In this regard, his works can be seen throwing from real life to the world of fiction and the distant past "the Ascension of Gannele", from realism to neo-romanticism and symbolism "the Sunken bell".

The works of G. Hauptmann are a mirror of the era. The conflicts of the time such as social inequality, social injustice, and government bias are shown in his works as they were, without exaggeration, which helps us to see the full picture of what is happening, not part of it.

**Conclusion.** Summarizing all the above, we can conclude that naturalism had a direct influence on the work of G. Hauptmann. The uncertainty of this direction in literature can be traced in the works of the writer. Hauptmann's complex ideological and aesthetic views imbued his works with the originality of the epoch and distinguished him from all naturalist writers. As for the duration of all time, the epoch changed in its structure, so the work of the playwright was transformed.

Hauptmann's tragedy is characterized by topical themes of the time, namely: the tense conflict between man and the world, the contrasts of bourgeois reality, the life of the proletariat, the spiritual state of the estates, regardless of their status. This desire for a truthful account of the world was a kind of protest against the vices of the time. Gerhart Hauptmann was far from optimistic, he saw the flaws of the era, and like many Western European writers tried to fight against them. Characteristic features of his works were naturalistic details, thanks to which readers can imagine a full picture of what happened. His openness and lack of fear to describe the events of this period significantly distinguished the playwright from several writers of that time. A distinctive feature of Hauptmann's works is the portrayal of characters, which are based on detailed observation, and allow readers to feel the rich palette of characters. The versatility of his works and versatile focus, affecting all aspects of naturalism, do not limit readers, but rather cause them interest.

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2. Huebsch, B. W. The Dramatic Works of Gerhart Hauptmann / B. W. Huebsch ed. – New York, 1912. – 468 p.

## **ARTISTIC PSYCHOLOGISM IN THE NOVEL BY THOMAS HARDY “TESS OF THE D’URBERVILLES”**

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The role of women in Victorian society has drawn the attention of many writers. Thomas Hardy is among them. His style is the intertwining of philosophical motives with deep social content. Thomas Hardy refers to the creation of deep psychological profiles. In particular, the portrait of Tess attracts attention.

The aim of our research is to reveal artistic psychologism in the novel by Thomas Hardy “Tess of the d’Urbervilles”.

**Material and methods.** While working on the research we analysed scientific works of Lewis B. Horne and Daniel Williams. Such method as descriptive method with elements of comparative analysis was used.

**Findings and their discussion.** Tess, who is the main character of the novel, belongs to the peasant class. The printed editions are accompanied by a subtitle “A Pure Woman Faithfully Presented” [1], which gives us the right to consider this novel as a realistic work.

The whole novel can be divided into 2 parts. The first part introduces us to the young Tess with her dreams. She hasn't yet been disappointed in her life and enjoys beauty and youth. The second part is part of the collapse. Where the girl is accompanied by failure and tragedy.

In order to better understand the main character, you should refer to her large family. Here you can clearly see how Tess and Abraham (her brother) assume the responsibilities of adults. “Her mother's intelligence was that of a happy child” [1, p. 24]. This woman does not understand the responsibility for a large family that is on the verge of poverty. And the father is often nipping from the bottle in the local tavern, where the daughter has to pick him up.

Tess is more responsible for many adults. For example, she suggestion “to be delivered to the retailers in Casterbridge before the Saturday market began” [1, p. 36]. When a girl and her brother hit the road in the middle of the night.

The turning point in Tess' life was her acquaintance with Alec. Daniel Williams notes “The scene of Tess' first visit, with Alec feeding Tess strawberries is very sensual and suggestive. Hardy made a point to include such a scene early in the novel to pique the reader's response to the novel. Sex was not a usual subject for a book, and Hardy delivers in his first section lust, sex, and seduction”[2]. For the young d'Urberville, she is just another lover. And at the subconscious level, Tess understood this fact. But the role of the catalyst in their relationship was the incident at the fair. After which the girl was dishonored.

With Alec's arrival everything got out of control. According to researcher L. Horn “The man whom she wanted was nowhere near her, and the man who wanted her was nowhere near whom she wanted, yet here she was” [3, p. 11].

After returning home, the girl does not find support from her relatives. Mother's critical remark “Well, we must make the best of it, I suppose. Tis nater, after all, and what do please God” [1, p. 120].

Horn writes in his work “Alec does not appear in Chapters 12-43. Nevertheless, we cannot say that he doesn't impact the story during these chapters. First, his earlier actions impact everything that follows. But his impact is not simply confined to the readers' understanding of the part he has played in Tess' current situation” [3, p. 4].

In those days society was extremely negative towards women with children without marriage. But the real blow to Tess was the death of her child. Public opinion begins to pursue the heroine. She turns from a girl into a woman.

In order to survive, Tess changes her environment and begins to work on a farm. This change was good for her. Here the girl falls in love and gets married. Horn gives a very interesting point in relation to the time in which it is written.



“He affects her as the stars do; by fixing your mind upon a star, says Tess, ‘you will find that you are hundreds and hundreds of miles from your body, which you don’t seem to want at all’... Like a star, Angel’s singing renders Tess “conscious of neither time nor space” [3, p. 8]. The lack of time or space consciousness is very irrational. However, it seems that their relationship was very irrational and doomed from the beginning. Angel belonged to the nobility. But he decided that he wanted to become a farmer. Which seems unreasonable. Besides, a man who married a girl below his social class was atypical at the time. It made this relationship very difficult from start to finish.

Tess is an honest girl. Whatever happens to her in life, she strives for purity. Unfortunately, she could not be saved from sin. And that’s what her husband can’t forgive.

At the end of the book, we again encounter problems in Tess’ family. Due to her mother’s illness and her father’s death, the girl sacrifices herself again. She has to live with Alec. Horn describes his behavior “He will not accept her rejection of him. He is able to finally sway Tess by catering to her poor family. Alec takes full advantage of Tess at this point, and he convinces her to live with him as a d’Urberville. Thus, Alec has persuaded Tess to live a life of sin. This deception results in his death when Tess, enraged, stabs him”.

When the police take Tess away, she even thinks of her family at such times. The girl asks Angel to marry her younger sister.

**Conclusion.** Thomas Hardy deeply examines the image of the main character and shows readers the moral reasons for her tragedy. The writer refers the reader to the understanding of the law of Victorian society and the role of women in this society. Psychological skill is to show the heroine struggling with difficult circumstances and going against general traditions.

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2. Williams, D. *The Relationship between Setting and Events in Tess of the d’Urbervilles* / D. Williams. – New York : New York, 2006. – 158 p.
3. Horne, L. *Rumor, Reputation, and Sensation in Tess of the d’Urbervilles* / L. Horne. – Oxford : Oxdord Univ. Press, 2011. – 144 p.

## THE METAPHOR AND WAYS OF ITS TRANSLATION

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The metaphor as one of the most widespread tropes plays an important role in fiction, therefore attracts the attention of a large number of linguists beginning from ancient times. Authors’ metaphors used in fiction represent a challenging task for interpreters. The author’s vision and his conception of the work depend on the accuracy of rendering metaphors. The novels of the English

writer Iris Murdoch (1919 – 1999) are characterized by special symbolism, innumerable, individually authorial images and forms of thinking, which represent a wide area of interest for linguists and literary scholars. It is the metaphor that plays a special role in creating subtle, multifaceted, ambiguous images and high artistic value of A. Murdoch's novel "The Black Prince" (1973).

The purpose of the work is to identify the prevailing ways of translating metaphors from English into Russian in the novel "The Black Prince" by A. Murdoch.

**Material and methods.** The research material represents 65 metaphorical expressions from A. Murdoch's novel "The Black Prince" selected by random sampling. Research methods used: descriptive, comparative analysis of translation and the method of component analysis.

**Findings and their discussion.** Let us consider the peculiarities of translating metaphors in the novel "The Black Prince" by A. Murdoch (translated from English by I. Bernstein and A. Polivanova) based on the most commonly used means proposed by T.A. Kazakova [1]:

Full translation of metaphors allows the translator to keep not only the author's images unchanged, but the emotional and evaluative components of all these images as well:

*...in an allegory, something with a form as pliant and as hard as my cast-iron garland of roses* [2, с.38];

‘... в аллегории, столь же тонкой и прочной, как моя **гирлянда чугуны хроз**’ [3, с.51].

*...my pen shakes with resentment, love, remorse, and fear* [2, с. 48];

‘...моё **перо дрожит** от обиды, любви, раскаяния и страха’ [3, с. 69].

*Real misery cuts off all paths to itself* [2, с.76];

‘Настоящее **страдание** само **отрезает** к себе **все дороги**’ [3, с. 116].

*Emotions cloud the view...* [2, с.48];

‘**Эмоции туманят** взгляд...’ [3, с.69].

*...I saw her as a life-bringer. Then I saw her as a death-bringer* [2, с. 19];

‘... я видел в ней **дарительницу жизни**. Потом — **дарительницу смерти**’ [3, с. 18].

In the given units when translating into Russian it is possible to retain the author's metaphors practically unchanged. In these examples the discrepancy (lexical, stylistic, semantic) between the two languages is not an obstacle. 26 selected units are translated by full translation.

Addition/omission is another commonly used way of rendering metaphors. When translating metaphors it is often necessary to add some words or components (or omit them) in order to preserve the metaphorical nature of the author's expressions. Since full translation of metaphors is not always possible, in some cases omission of one or more words helps to preserve metaphorical meaning:

*The feathered songsters were still pouring forth their nonsense* [2, с.33];  
'Безмозглые пернатые песнопевцы по-прежнему разливались в своем лирическом азарте' [3, с.42] (adding of the component «безмозглые»).

*A letter is a barrier, a reprieve, a charm against the world...* [2, с.38];  
'Письмо – это барьер, отсрочка, защитный талисман, заговоренный от жизни...' [3, с.52] (adding of the component «заговоренный»).

*All our little devices are just morphia to stop us from screaming* [2, с.84];  
'И все наши маленькие уловки – это только дозы морфия, чтобы не кричать' [3, с.129] (adding of the component «дозы»).

*...an elegant newly minted fox, straight from the hand of God, brilliantly ruddy, with black stockings and a white-tipped brush* [2, с.65];

'Лиса была изящна, вся новенькая с иголочки, прямо из рук творца, ослепительно-рыжая, в черных чулках, с белой кисточкой на хвосте' [3, с.98] (adding of the components «с иголочки» (a Russian idiom) and «на хвосте»).

*She began to laugh helplessly* [2, с.78];

'И она захохотала, залиvisto и беспомощно' [3, с.119] (adding of the component «залиvisto»).

*Partly, I still felt something of the sheer unholy excitement...* [2, с.33];

'Во-первых, я еще испытывал то несправедное удовольствие...' [3, с.42] (omission of the component “sheer” – явный, истинный).

*You get so worked up and flowery!* [2, с.32];

'Так цветисто говорите' [3, с.41] (omission of the component “worked up” – навзводе, сердито).

The way of omission/addition cannot guarantee the absolute similarity of metaphors in English and Russian versions of the novel, but it does not deprive the text of imagery and expressiveness. Thus, the translation of the novel can be considered adequate. 15 selected units are translated by addition or omission.

**Conclusion.** The metaphor is one of the major tropes used by A. Murdoch in the novel “The Black Prince”. By means of metaphors, the writer brilliantly depicts numerous images full of symbolism and color.

Metaphors used in fiction represent a serious issue for translation. The analysis of the selected units has shown that the most frequently used way of translation is full translation (40% of all the units selected), as well as the way of addition and omission (23.08% of all the units selected). Transformation of metaphors by means of traditional correspondence (4.6% of all the units selected) and the way of structural transformation (6.1% of all the units selected) are least likely to occur. We can state that the translator of the novel prefers to adhere to the original version of the text, thereby conveying the most accurate meaning of the author's ideas and images, expressing the peculiarities of the original text. The author's intentions, the aesthetic power

affecting the reader and artistic coloring of all the images embedded in the novel depend on the correctness and accuracy of rendering metaphors.

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## THE ZOONYMIC COMPONENT “CAT” IN ENGLISH AND RUSSIAN PHRASEOLOGY

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The article studies the national specificity of phraseological units with zoonymic component “cat” in the English and Russian languages. The topicality of the research is determined by the fact that phraseology includes historical and cultural heritage, and idioms containing animals are the ones of the oldest.

The aim of the work is to analyze specific features of the zoonym “cat” that are revealed when they are used by native speakers and compare the national and cultural peculiarities in the usage of this zoonym in English and Russian.

**Material and methods.** The material for the research is phraseological units containing the zoonymic component found in idiom dictionaries in the English and Russian languages. Methods used in the article are the method of phraseological identification and the analysis of phraseological units by semantic features.

**Findings and their discussion.** In English there has been identified more than seventy phraseological units containing cats, while there are about forty in Russian. The majority of idioms have their origin in ancient times when these animals adapted to living alongside humans, so people could observe their natural behaviour in different situations. These distinctive features later were reflected in the language, in its set expressions.

As people firstly regarded domesticated animals from the practical point of view, in English there is a lot of phraseological units where cats are firstly associated with their practical skill which is the most important for people – mouse hunting. For example, *while the cats away the mice will play; to keep no more cats than will catch mice; to be busier than a one-eyed cat watching two mouse holes; a cat in gloves catches no mice; a shy cat makes a proud mouse* as well as in Russian: *кошки грызутся – мышам приволье; на мышку и кошка зверь.*

In the idioms where cats and mice are opposed a cat is represented not just as an animal hunting others but as a cruel predator which prefers to torture its victims before killing: *to play cat and mouse* (*играть в кошки-мышки* in Russian).

The image of cat as a hunter is reflected in all idioms where any other animal is mentioned: *to look like the cat that swallowed the canary*; *to live a cat-and-dog life*; *to put a cat among the pigeons*. This is relevant for both studied languages: in Russian they say *жить как кошка с собакой*; *рано птичка запела, как бы кошка не съела*.

The inner content of phraseological units with zoonymic component reflects the diverse aspects of animal nature compared with human relationships, experience and feelings. Thus, in idioms there are observed such characteristics of cats as: arrogance (a “fat cat” is used to denote a rich, wealthy and powerful person, curiosity (*curiosity killed the cat* (Russian equivalent – *любопытство убило кошку*), finesse (*to walk like a cat on eggs* – to act with great care; an expression “*cat burglar*” is used to name thieves who get inside a house climbing up the walls), laziness (*a cat nap* refers to the cats’ ability to doze off the whole day), pretending (*cats hide their claws*; *кошка спит, а мышей видум*), cats’ unpredictable nature (English “*to see which way the cat jumps*” means to wait and delay decision-making; Russian idiom *кот в мешке* means something unknown and unexpected).

There’s also a number of set expressions which point out cats’ overeating and willingness to steal any possible food: in English it’s shown in such idioms as *to send not a cat for lard*; *to be honest as a cat when the meat's out of reach*; *to look like the cat that got the cream*; in Russian – *знает кошка, чьё мясо съела*; *не все коту масленица*; *кошка мышей ловить не устанет, а воровать не перестанет*; *полно кошке таскать из чашки*.

It should be mentioned that the number of idioms where cats are used with negative connotation is significant, for example, an unpleasant grumpy woman is called “wild cat” or “old cat”. In Russian the number of such idioms is actually predominant: *кошки скребут, кот наплакал, коту под хвост, между ними кошка пробежала*.

Meanwhile, in the English language the concept of cat is more often used with a positive meaning, it denotes something pleasant: “cat’s meow” means something that is first-rate; a stylish person is called “a cool cat”, “cat’s whiskers” or “cat’s pajamas” names something extra class or someone self-important.

While there are some phraseology units which are fully equivalent in the English and Russian languages we should note phraseological units that are closely connected with national specificity. “A cat may look at a king” is one of such idioms. In this expression a cat stands for any Englishman and means that even someone of low status has rights, which refers to the English historical tradition and social system. Also there can be mentioned such idioms as “to grin like a Cheshire cat” that is known due to Lewis Carroll’s character and “fight



like Kilkenny cats” that originates from an old story about two Irish cities in the 17<sup>th</sup> century. That’s one of the ways national specificities are shown in phraseology.

**Conclusion.** The result of the study shows that the majority of phraseological units with the zoonymic component “cat” are widely used in common speech and have a lot of meanings. As these animals have lived near humans for centuries and people could make a comparison looking at their habits and behaviour, the image of a cat has become a core component of different phraseological units. In Russian phraseology idioms with the component “cat” are not numerous and obtain mostly negative connotations. Whereas in English there’s a larger number of phraseological units containing cats, and the image is rather ambiguous as it describes different characteristics, positive as well as neutral and negative. Also in English there is a tendency to praise cats’ dominance and independence, while in the Russian language cats are seen as practically useful but inferior animals, and that fact actually meets historical context and reflects the differences in the perception of the image of cats in British and Russian cultures.

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## **THE INTERTEXTUALITY OF THE POETRY OF MAXIM BOGDANOVICH**

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A distinctive feature of the language of Belarusian fiction is the use of intertextual relations as a manifestation of appeal to the values of world culture and literature. Intertextuality is most often interpreted as a connection between two texts belonging to different authors and is temporarily defined as earlier and later. The intertextual connections of works of art are often reflected in various reminiscences, allusions, quotes, which are quoted or remain implicit.

The purpose of the article is to identify textual and artistic reminiscences, their origin and functions in the poetry of Maxim Bogdanovich. The relevance of the topic is associated with the importance of revealing the origins and distinctive characteristics of the work of an outstanding master of the word.

**Material and methods.** The material of the study was the poetic texts of Maxim Bogdanovich. When collecting material, the continuous sampling technique was used. In the analysis of linguistic facts, a descriptive method was used with methods of observation, generalization, interpretation and classification of the units studied.

**Findings and their discussion.** The most striking indicator of inter-textual dialogue is the *epigraph*, which, as a rule, is a quote from some authoritative source and shows the reader the way of interpreting the text.

The shape-forming function is performed by the epigraph to the triolet “Як птушка ў гібкіх трасніках...” *Красавец юный, Триолет*, taken from the creative heritage of the Russian poet K. Fofanov. Konstantin Fofanov is one of those writers, thanks to whom the trio lived through its revival in Russian poetry. And the epigraph is a kind of gratitude to Maxim Bogdanovich.

**Literary reminiscences in the form of references to the names of well-known works, their authors and heroes.** The names of famous writers are recorded in several headings of poetic works: “Д.Д. Дзявольскаму”, “Калі зваліў дужы Геракл у пыл Антэя...”, “Дзень гэты, – так пісаў Катул...” (“Успамін”), “Максім і Магдалена”, “Ліст у рэдакцыю «Нашай Нівы»”, “С. Палуяну”, “Ліст да п. В. Ластоўскага”, “<Пану Антону Навіне>”. Many precedent names are mentioned in the texts of the poems themselves.

Poem lines “Ліст да п. В. Ластоўскага” saturated with links to texts, creators and characters of world literature: *Аб драмах Пушкіна кажу я ў ім. Не Мэры, / Не Фаўст, не цар Барыс, а Моцарт і Сальеры / Варушаць мозаг мой. Здаецца мне, што тут / Сальеры атрымаў несправядлівы суд. <...> Сальеры ў творчасці усё хацеў паняць, / Ва ўсім упэўніцца, усё абмеркаваць... <...> Табе прывет нясу, ласкавая Камэна, – / Натхненнем упаіў нас ключ твой Гіпакрэна. <...> Александрыйскі верш! Ты ціхі, як Эрэбус, / Хаваючы агонь пад снегам* [2, с. 263–265].

In the poem “Безнадзейнасць” we read: *Скарына, доктар лекарскіх навук, / У доўгай вопратцы на вежы сочыць зоры. / Яны спрыяюць! Час! З рухавых рук / Скарыны п’е адвар пан земскі пісар хворы* [2, с. 91]. Skorina was also a famous medical scientist, but even he can not help.

In the poem of Maxim Bogdanovich “У старым садзе” there are such names as Watteau and Parny. Watteau is a French painter, and Parny is a French poet. It is interesting that the artist and the poet are nearby. And this is because they are both creative people. They lived in different centuries, and this is mentioned in the poem:

*Прыгожы сад, які любіў Вато:  
Між дрэў зялёных статуі паўсталі,  
Вось грот, гадзіннік сонечны, а далі  
Фантан... Напэўна, саду год са сто.  
Стаю я, сню пра знікнуўшыя дні  
І кніжку новага пісьменніка трымаю.*

*Яе я разгарнуў... і закрываю,  
Здзіўлёны ўкрай, што гэта не Парні [2, с. 262].*

In the poem “Ў краіне светлай, дзе я ўміраю...” it is no accident that the name of Martin Kuhto is mentioned. Indeed, it was in Vilnius in the Martin Kuhto printing house in 1913 that the collection of the poet “Вянок” was published, which is mentioned in the poem:

*Ў краіне светлай, дзе я ўміраю,  
У белым доме ля сіняй бухты,  
Я не самотны, я кнігу маю  
З друкарні пана Марціна Кухты [2, с. 320].*

***Biblical motives in the poems of Maxim Bogdanovich.*** Christian motives are found in the poem of Maxim Bogdanovich “Хрэсьбіны лесуна”. According to Jesus Christ, christening is a necessary condition for being born again in order to enter the Kingdom of God. Baptism is a great sacrament, but without our faith it does not work. Whoever believes and is baptized will be saved; and whoever does not believe will be condemned. Only after baptism does a person gain access to all church secrets, first of all, to Communion, in which, according to the teaching of the church, a person joins God. Sacrament consists either in triple immersion of a person in water, or in pouring a person with the prayers of a priest.

*Яму месяц маркотны свяціў,  
Падымалі крыжы ў неба елі, –  
І у сіняй нябеснай купелі  
Душу дзікую ён ахрысціў [2, с. 208].*

***Mythological motives in the verses of Maxim Bogdanovich.*** In the poem “Дзве смерці” Maxim Bogdanovich combines in his plot two tragic stories of suicide: one from the time of Ancient Rome, and the second from the days modern to the poet. The poem can be divided thematically into two parts. The first story is about the death of a patrician: when a patrician met death with greetings:

*...Прабіўшы жылы на руках,  
Дрыжэлі севы флейт, дзень ясны дагараў,  
А праз вакно струёю вецер павяваў  
І... мігдаловы горкі пах [2, с. 103].*

And the second – the death of a resident of Vilna:

*Ты, грозны жэрабій, учора ўзяты зноў;  
На срога сціснутых губах  
Не мгліца люстра гладзь; застыгла ў жылах кроў;  
Скрозь вее цяжкі дым ад спаленых лістоў  
І... мігдаловы горкі пах [2, с. 103].*

Combines both cases of “мігдаловы горкі пах”. Almonds are a symbol of fertility, and in relation to people in ancient Rome, this plant took care of procreation. Therefore, we can assume that the presence of this smell on the site

of suicide indicates the bitterness of the loss of people as continuers of the human race. The antique motif is realized as a mention of patricia – the Roman aristocrat is not mythological, but a very real acting person. Remembering this person is advisable in that connection that the problem of suicide brings the times of Antiquity closer to modern times.

**Conclusion.** The product of Maxim Bogdanovich's relationship with other texts shown in maximal concentrated form. The most striking figure of intertextual dialogue are epigraphs, which, as a rule, is a quotation from any authoritative source, and indicates to the reader the way of interpretation of the text. The poet in his works often turned to world-renowned works of literature, music, classical and biblical stories, images and motives.

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## ARTISTIC PECULIARITIES OF MODERN LITERARY TALE

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Tales were created and established in the pieces of Shakespeare plays. In the XVI and XVII centuries, Robin Hood and others were introduced to readers by B. Johnson, J. Dryden, etc. At the beginning of the 18 century, the tale became less popular among writers. They focused mainly on moralising novels where the edification was dominant. Lately, disillusionment with pure reason set in and authors of moralizing tales gradually started to develop a fascinating plot, integrating fantasy elements into their extensive sermons that led to a combination of fairy tales and morality. The next romantic period of literature broadened fantasy and interest to folklore. Having become an independent, developing genre, English tale started drawing the attention of such great writers as L. Carroll, Ch. Kingsley, W. Teckerey, K. Lewis which tended to raise serious questions in children stories. One of such authors was Roald Dahl, who reflected relevant problems of the time in the child's perception.

Dahl was quite popular during the lifetime. According to the statistics Even nowadays every third child in Great Britain buys his book per year, an additional the great majority of his books hold top positions in the lists of the most popular works in the UK and the USA. It makes relevant to define the basic artistic peculiarities of the contemporary fairytale.

The purpose of such pieces of work was to represent without any entertainment and artistic merit, representing a proper model of behaviour and the way of thinking.

**Material and methods.** For analysis, the work of Roald Dahl, “Matilda” considered in the cultural-historical aspect, was selected using contextual and descriptive methods.

**Findings and their discussion.** The literary tale has come through a long period of changing and creating its main tendencies of development. As genre literature or fairy tale strongly established in the 19 century. Its setting was closely connected with social and political events and also some literary movements. It’s commonly known that tales rooted in folklore. Stories were collected, edited, adapted to preferences of that time. Huge contribution to its development was made by the Grimms. Legends, stories were gathered from their oral traditions to preserve as part of the cultural heritage.

To modern times English fairy tale has acquired traditional features as moralization, conflict between adults and children, magic and magical attributes, the main character is a child (even if a character becomes a cavalier or a king, the heroic act will be done в образе a small boy or a small girl), appealing to problems of the time, focus on myths and epos, explicit style of language.

Interaction between a real and a magical world also takes place in tales. We are given typical characters, situations, which seem true. This effect is created by factual definition and detailed description of the environment. The author deliberately emphasizes the reality of the unfolding events by introducing the peculiarities of a family’s everyday life their relationship. Dahl adds such details as income, the definition of the house, tradition, values and habits, and, of course, appearance. That’s why the reader considers this family may exist in real life. But at the same time magic breaks into and makes it eccentric, however, everything remains natural.

The basic idea of the context is built on the battle with struggles of life and difficulties which a person faces. Magic is the primary means of counteracting issues, another point of importance is intelligence and... National peculiarities of traditions, lifestyle are widely represented in the narrative as well as burning social issues (the relationship between parents and children, education, the influence of the mass media, etc.).

The system of the characters in a fairy tale comprises the protagonist, antihero and supporting ones. The division of its types is based on the opposition of the children and the adults. It's also necessary to introduce an assistant character who is a representative of an “adult” section, helps the young to analyze the oppositional world. This person usually combines both the traits of a child and an adult (Mrs. Honey). Also, the system of characters consists of protagonists (mostly children) and symbolic images, who embody virtues, consider of higher morality. And the other type of protagonists (adults) who stay aloof the situation, antagonists adults, and parents. A child is given a miraculous gift that makes her special, remarkable, and distinctive from others (Matilda has unusual intellectual capacity). She fights for justice, dignity and rights.



**Conclusion.** A modern English fairy tale is a rapidly developing genre, which comprises established national specification, bright folklore representation and author's creativity. Dahl's narratives are updated traditional tales, by which the author reflects his point of view, the environment, characters, setting and transfer events of the tale into real life. He introduces a magical element which intermingles with the reality what makes the piece of work explicit and entertaining.

So tales in the UK has become one of the best means of helping children to build knowledge of the world. It shows the abundance and variety, good and bad, teaches first and important lessons of morality and the rules of the virtuous behaviour, and the structure of society.

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## **READING AS AN INDICATOR OF THE ENGLISH NATIONAL CHARACTER**

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In Alan Bennett's novel "Uncommon Reader" (2007), the book acts as a magnifying glass through the prism of which the subtleties of an English character are reflected. Among the problems reflected in the book, the bias of incompletely educated courtiers and members of the English Parliament to the queen's sudden hobby for all-consuming reading is examined, which reveals the following problem – the violation of the class system in English society.

Based on this, it is relevant to consider the English national character in modern literature. It also seems important to display the Queen's perception of a progressive society, its place in Britain in the 21st century.

The purpose of the work – to trace changes in the national character and the hierarchy of cultural values of the British.

**Material and methods.** For analysis, the work of Alan Bennett, “Uncommon Reader” considered in the cultural-historical aspect, was selected using contextual and descriptive methods.

**Findings and their discussion.** Events in the work begin to unfold against the backdrop of the restless barking of the palace dogs on an unsightly wagon, which is a mobile library. The Queen of England was forced to climb into the van and apologize for the inconvenience. The Queen was interested in the cover of the novel, the unpopular writer Ivy Compton-Burnett. The queen never had much interest in reading, but in order not to seem uncivilized, she took a book for herself, because of which an all-consuming spark flashed in her soul to read one book after another. Her Majesty began to fade away in relation to her public duties and lose interest in meetings of national importance. At this time, her courtiers entered into a conspiracy to stop the royal craze, developing into a lifestyle. Reading took hold of the queen, leaving no time for government affairs. She plunged headlong, losing interest in her core business: the kingdom was ready to wait while Her Majesty criticized Jane Austen. For a queen, a day does not make sense if it is not filled with the rustle of pages turning over. But it is important not to forget that there will always be people who will have a great desire to reproach for such a super interest in reading.

On the one hand, it seems that reading is pure egoism. In the process of reading, we spend time only on ourselves. Of course, we improve and develop ourselves. But the queen has a feeling of guilt, bewilderment: “Why am I reading, why so much?” [1]. Gradually, the ruler began to forget about her main responsibilities. How to find time to read when you occupy such a high post? It is absolutely simple: forget about everything and immerse yourself in the literary "pool" with your head. “Reading is not a public duty, we read for pleasure” [1].

In addition to the obvious advantages, the author shows the negative aspects of the "book" addiction. Everyone around cannot stand the fact that the queen reads, even to the fact that the dogs mercilessly bite into a book that accidentally fell to the floor, supposedly jealous of the time taken by literature. The culmination of the author’s irony manifests itself in the fact that they even tried to confiscate and blow up the book since it looked like an explosive object: “A book is a device that can inflame the imagination” [1].

In our opinion, some people read and prefer light, non-compulsive reading. And some readers are very selective about the choice of books, which for them is the source of wisdom, development, and the search for answers to many questions.

Due to the not always considered choice, the queen can be attributed to the first type: the barking dogs near the palace forced the queen to turn her attention to a small mobile library, the author shows that this is her first acquaintance with

fiction. A courtier named Norman helped in the selection of the book; Her Majesty took it only because she was ashamed to refuse, ashamed to seem unreadable.

Does the courtier accidentally appear in the text, who takes on the responsibility of helping to choose fiction for the Queen herself? This acquaintance in the mobile library appears before us as a situation of absurdity. Indeed, from the modern structure of the class system, not every courtier has the right to speak with Her Majesty. But the author demonstrates to the reader the behaviour of the queen so that all the framework of the class system is erased, that in this situation, reading elevates high-ranking people spiritually, but at the same time brings them closer to the ordinary people.

The author's attempt to look at the queen's inner world also seems curious. The Queen, her position, experience, and position are unique about us, ordinary people. And this, fortunately, or maybe, and, unfortunately, draws a huge impenetrable wall between her inner world and her position. But in any case, she remains a human, occupying such, as it seems to us, an incredible, unattainable post. But at the same time, in the work, we look at the queen not as a high-ranking official, but as a person with interests, preferences, thoughts that are closely intertwined with the foundations of ordinary people. Reading her gives an indescribable joy, despite her special status. The queen has a sharp change in interests and position. In her head, as if everything was turning upside down, she found herself. And now she is worried about completely different problems, far from meetings and royal events.

At meetings, the queen first asks little of her subordinates their preferences in literature, the frequency of questions asked by her increases markedly, all state affairs stepped aside. From the text of the novel it follows that the queen addressed her literary questions very correctly, she absolutely does not despise people who don't read. The negative mood of people who are not interested in reading is too high, this is confirmed by the words of the Prime Minister: "What does the discussion of literature give people?" [1].

Probably Alan Bennett wanted to prove by this that the queen is an adornment of the political system of England, but does not occupy a leading and decisive post. The queen has a sharp change in interests, the author emphasizes the similarity with an ordinary person. Alan Bennett notes the character traits of the royal nature, often hidden from a large number of observers.

The Queen fully justifies the title of the work - "Uncommon Reader": she is a demanding reader, with her preferences and desires. According to the author, to maintain a conversation with Her Majesty, one must read the exact opposite of her tastes.

**Conclusion.** From the very beginning, the Queen appears to us as a reader undemanding, inexperienced, but eventually fell in love with reading, who began to understand literature, denying cliches. It is not related to debt and public service. Reading is a luxury. After all, the queen does not have to read? Here to attend conferences, races, meetings of national importance - no doubt.

The author emphasizes the evolution of reading tastes and changes in the social structure of Great Britain while defending the importance of cultural values in the modern world.

1. Bennett, Uncommon Reader / A. Bennett, 2008.

## **THE ROLE OF ON-LINE VOCABULARY BUILDING IN LANGUAGE ACQUISITION**

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To acquire a good skill of communication in a foreign language it is necessary to be familiar with vocabulary, i.e. single words and their meanings, collocations, phrases and phrasal verbs. There exists a wide array of vocabulary teaching techniques that can be used in the classroom. However, self-study of foreign languages does not only exclude their use but also contributes to constant upgrading of on-line tools for vocabulary acquisition. Dozens of video courses deal with vocabulary building, which makes learners' choice more complicated and hampers the process of quick and efficient mastering the language.

The purpose of the present article is to compare most frequently used on-line vocabulary building courses in order to ascertain which are likely to be more helpful in vocabulary acquisition and outline some advantages of the given tools.

**Material and methods.** As the research material we used the analysis of online training programs. The methods of comparison, description, sorting and questioning were used.

**Findings and their discussion.** The results of the survey carried out among the students of our college turned out to be unexpectedly surprising. Only 12% use on-line vocabulary building tools while the others find them time-consuming, requiring enhanced attention and concentration. It proves the necessity to outline the advantages of on-line courses as their effectiveness is undeniable both in self-study and teaching English.

1. Teaching process is performed by native speakers. It enables learners to develop their listening comprehension skills and master correct authentic pronunciation of English sounds.

2. The stage of meaning interpretation includes several ways of facilitating word understanding used simultaneously: context, descriptions, gestures, synonyms and pictures (schemes). Thus, both visual and auditory learners can find on-line courses equally helpful for vocabulary building.

3. The target language is used and the learning is contextualised. Words are best remembered in their situational context [1, p.96]. Contextual elements help

memory, which consequently leads to better retention of vocabulary. Moreover, learners develop such skills as concentration, perseverance and reasoning.

4. Listening to native speakers helps learners to express themselves appropriately in a wide range of situations and keep update with the latest upgrades in current vocabulary stock. They can be aware of commonly used informal lexemes and neologisms.

5. Using on-line vocabulary building tools is a pleasurable and less time-consuming activity. Students can quickly guess vaguely known words. They don't need to look up the word's meaning and eventually speed up their learning of other lexical units.

6. Personal factors, such as self-esteem, inhibition, anxiety, empathy, extroversion or introversion, do not interfere with the process of vocabulary building, which can bring out a more rapid improvement of vocabulary skills.

The popular on-line vocabulary building tools used by the students of our college were thoroughly analyzed.

“DuoLingo” [2] and “LinguaLeo” [3] provide sets of well-developed tasks that help students to remember words through constant repetition and fulfilling various exercises: choosing a translation, collecting a word, writing down an uttered phrase or a word (“LinguaLeo”); translating a written sentence or a word, translating an uttered word or a phrase; pronouncing a word or a phrase, collecting a sentence, matching a word with a picture (“DuoLingo”). Meaning interpretation is done through translation into Russian. “DuoLingo” provides steady sets of words: a new set can be started as soon as the preceding one is finished. Words are not contextualised. “LinguaLeo” uses both contextualised methods of meaning interpretation (lyrics of songs, articles, videos etc.), and ordinary translation of words in isolation.

“BBC Learning English” [4] and “engVid” [5] assume learning new words by watching videos or tapes on different topics. The sites enable students to choose a suitable video according to a learner's level, a topic or a teacher. The duration of videos provided on “BBC Learning English” is mostly short that makes them easier to perceive and saves your time. A variety of formats can be found there: podcasts, small discussions, videos with pictures accompanied by a voiceover. Moreover, the site suggests syllabuses in order to ease and systematize the process of learning.

Videos introduced on “engVid” are usually long and require patience and perseverance from a viewer. The process of meaning interpretation on both sites includes a wide variety of methods: explanation a meaning, giving synonyms and antonyms, context, showing pictures (more typical for “BBC”), gestures and schemes (typical of “engVid”). “BBC Learning English” uses contextualised introduction of vocabulary while “engVid” teachers give the description of a word providing contexts afterwards. The stage of word reinforcement is represented by small quizzes that include completion exercises and multiple choice tests for checking meaning comprehension. Nevertheless, such quizzes can't help to retain words in a long term memory.



“Oxford online English” [6] provides three-part videos or tapes: contextualised word introduction (a small monologue or dialogue), meaning description, topical collocations or question-reaction activities. Full scripts following each video facilitate the process of listening comprehension and vocabulary acquisition which can be hampered by absence of word reinforcement exercises and aiming mostly at intermediate-level target audience.

“Learn English with TV series” [7] enriches learners’ word stock through a well-worked out scheme: watching a scene with subtitles (new words are highlighted), watching again with unfamiliar words being introduced and eventually enjoying a video without subtitles. Nevertheless, the videos are too complicated for beginners and lack the word reinforcement stage.

“Learning English Online Ucan.vn ” [8] offers small videos consisting of five stages: listening to an animated story, interpretation of words (giving meanings and contexts), listening and repeating sentences, doing different exercises and listening again with subtitles. Videos are intended for learners of different levels. American English can present an obstacle for mastering correct British English.

**Conclusion.** Although the Internet resources offer a seemingly unlimited array of vocabulary building sites, there is no ideal one. Despite undeniable drawbacks all the sites mentioned above can be extremely helpful and effective in vocabulary acquisition.

Traditional techniques of enriching learners’ vocabulary stock should be accompanied by watching suitable and enjoyable on-line vocabulary building tools.

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3. LinguaLeo [Electronic resource]. – Mode of access: <https://lingualeo.com/ru>. – Date of access: 20.10.2019
4. BBC Learning English [Electronic resource]. – Mode of access: <http://www.bbc.co.uk/learningenglish>. – Date of access: 23.10.2019
5. engVid [Electronic resource]. – Mode of access: <https://www.engvid.com/>. – Date of access: 22.10.2019
6. Oxford online English [Electronic resource]. – Mode of access: <https://www.oxfordonlineenglish.com/free-english-lessons> . – Date of access: 24.10.2019
7. Learn English with TV series [Electronic resource]. – Mode of access: <https://www.youtube.com/channel/UCKgpamMIm872zkGDcBJHYDg>. – Date of access: 20.10.2019
8. Learning English Online Ucan.Vn [Electronic resource]. – Mode of access: <https://www.youtube.com/channel/UC9lwM9eNa5yncs9W7ZTZHXQ/featured>. – Date of access: 24.10.2019

## TRANSLATIONS BY VLADIMIR DUBOVKA OF SHAKESPEARE'S SONNETS

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The legacy of the famous poet, William Shakespeare, was taken to Belarusian literature thanks to the translation work of many Belarusian and Russian poets. M.Voinov testifies that even today the permanent translation school is still formed [1, p. 8–10]. It is very difficult to make translations from languages not related to the Belarusian language, as poetry means, as well as quantitative and qualitative discrepancies of metric means, are not translated verbatim. It can be said exactly that the means of achieving artistic effect will be different in non-related languages. The translator must retain many of the original tools used by the author. For this reason, it is necessary to know thoroughly the language of the original and the living conditions of the creator.

Vladimir Dubovka translated the sonnets into Belarusian by William Shakespeare ("Sonnets", 1964). The relevance of our study is that it allows to deepen ideas about the creative individuality of the poet.

The purpose of the article is to systematize information about the translations of Shakespeare's sonnets by Vladimir Dubovka.

**Material and methods.** Material for the study was provided by William Shakespeare's sonnets and translations of Vladimir Dubovka's sonnets. Methods of research - structural-typological, phenomenological, descriptive.

**Findings and their discussion.** The classic sonnet is devoted to one topic. In Shakespeare this norm is violated: the first quadruple contains a statement of the topic, the second - its development, the third - leads to a decoupling, and the final twofold in an aphoristic concise form formulates the conclusion. It happens that the conclusion can be said earlier, and it happens that the thought does not find completion. The principle of composition has been changed in Shakespeare. He develops only one theme, where there are many comparisons and images that embody the main thought. In each Sana 'a, the poet expresses different opinions. In Shakespeare sonnets a large number of images arise, which are united by the unity of the lyrical hero. The thought of the need to support life, to care for offspring and to ensure their future, the continuation of a kind was held in Sana 'a number 1:

From fairest creatures we desire increase,  
That thereby beauty's rose might never die,  
But as the ripper should by time decease,  
His tender heir might bear his memory. [1, p. 259].

In translation sonnets, as in Shakespeare's original sonnets, life phenomena are widely generalized, behind personal is seen to be universal. It is known that the poets of the Renaissance, and especially Shakespeare, felt the contradictions of life very acutely. They saw them both in the outside world and in the soul of

man. Shakespeare 's sonnets showed man 's experiences related to the Story of Friendship and Love. Dubovka 's attention was attracted by sonnets, which indicate ambivalence of love and friendship. In Shakespeare there was an appeal to a friend and to a smug lady, a beloved lyric hero, and, the English author was quantifiably dominated by sonnets facing a friend. V. Dubovka tried not to accent the addressee of sonnets, and accented a perspective of sonnets of Shakespeare: friendship, friendship, life, death, creativity.

The Belarusian literary scholar, translator, Vadim Nabyshynets wrote that "before Dubovka our literature is in great debt for his real samples of translation skills, where harmoniously spaluchyutsya high poetry and strict compliance with the original in all its ideological and artistic components" [Cit. To: 2, p. 261]. The general content and idea of the sonnet are transmitted in translations exactly: the favorite is terrestrial and it is in its own way a beautiful woman:

So is it not with me as with that Muse  
Stirr'd by a painted beauty to his verse,  
Who heaven itself for ornament doth use  
And every fair with his fair doth rehearse. [3, p.135].

In the translation of Vladimir Dubovka of 14 lines 8 have 11 warehouses, in the original each line has 10 warehouses. In translations the composite structure was variable due to the difference between Belarusian and Russian languages. At the same time, in the translation of Vladimir Dubovka accentuated the structure corresponds to the original. The lines of the original of this poem have a male rhyme. In translation, every odd line has a female rhyme, and an even line has a male rhyme. It should be noted that in the translation of V. Dubovka male rhyme fully coincides, and in female rhyme only one complete coincidence (eyes - nights). The most frequent cause of inconsistencies is due to the fact that in the Belarusian language flexia cause accentuation of the structure of the word, so the number of words by the structure of the word and the number of words with the structure of the pressure-free in it prevails.

**Conclusion.** Analysis of the translation of W. Shakespeare 's sonnets by W.Dubukom shows that the Belarusian translator managed to restore elements of Shakespeare 's poetic style: metaphoricity, play of words, transfers of sentences from line to line and from strof to strof, intonation repeats, aliteration, internal rhymes.

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2. Horsun, I.A. Specifics of Belarusian artistic translation as a cultural phenomenon/Horsun I.A./Izvestia Gomel. State. Un. – Series: Humanities. – 2014. – № 1 (82). – P. 164–167.
3. Sonets: translated from English/William Shakespeare; originator N. V. Alekhina. – Moscow: Record, 1997. – 167 p.

## ORGANIZATION OF POLITICAL POLYCODE TEXTS AS A MEANS OF COMMUNICATION WITH THE AUDIENCE

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Political discourse at the present time is regarded as one of the most vital and popular spheres in our society. It catches the attention of a worldwide audience which contemplates diverse debates, political speeches, inaugurations and resignations. The language and the thematic field of political texts as a means of conviction, propaganda and manipulation form a unique class, which requires further research. As far as politics continue to change year after year, new ways of scientific study have been proposed, detailed or even declined.

The aim of our research is to study modern political polycode texts from the point of their communicative persuasive potential to the audience.

**Material and methods.** The material of our research is 50 English-language speeches, selected from *Youtube* channel (over the period from 2015 to 2019), which include presentations of MPs, Prime-ministers of Great Britain. The duration of the analyzed videos varies from several minutes to half an hour.

To gain the mentioned aim we have used the following methods: descriptive method, contextual analysis, logical and semantic analysis, interpretation method.

**Findings and their discussion.** For the purposes of the research work, a *polycode text* is understood as the text in which the message is encrypted by distinct semiotic means: verbal and non-verbal components, which create a specific structure [1, p. 25]. The specific features of polycode texts are determined by various correlations of verbal and iconic elements in their content. Multiplicity and complexity of these correlations are induced by the variability of mechanisms of perception and processing language units and other sign systems.

The study of the material has shown that the urgent problem that concerns British policy in recent years is the ‘Brexit’ phenomenon. Judging from this fact we find it necessary to divide all polycode texts into those which address the problem of Brexit and those which concern other issues. The first group may be subdivided in accordance with the classification, developed by O. Parshina [2, p. 74]. In this case we can identify the following strategies:

1) the strategy of discredit and attack. It is realized through the tactics of accusation. Let’s consider Nigel Farage’s speech to the EU: *‘the reason you are so angry has been perfectly clear... you (EU) as a political project are in denial. ...You have by stealth, by deception without ever telling the truth to the British or the rest of the people of Europe’*. In the extract the narrator accuses the European Union of its behavior on the world scene. He emphasizes the self-

denial of this political organization and even foresees that Britain won't be the last state to abandon the union.

2) the strategy of self-defense, which is realized through the tactics of apology and dispute. As an example we may study the speech of David Cameron at his resignation: *'I'm very proud to be a prime-minister of this country for 6 years, I believe we've made great steps... I fault this campaign in the only way I know how... I held nothing back. I was absolutely clear that my belief that Britain is stronger, safer and better inside the European Union... I think the country requires a fresh leadership in this direction... although leaving Europe wasn't the path I recommended I'm the first to praise our incredible strengths'*. While delivering the idea of his resignation, the Prime-minister made clear that the factors of that decision were not subjective and would make Britain's future even better. He highlighted his attitude towards the results of the referendum and shared the views of British people.

3) the strategy of self-representation (comprises the tactics of identification, solidarity, opposition). This strategy is identified in Boris Johnson's full victory speech after being named the new leader of the Conservative party: *'I want to thank all of you, everybody in the conservative party... I know we can do it and the people of this country are trusting in us to do it and we know that we will do it... We are going to energize the country, we are going to get Brexit done. We are going to believe in ourselves, of what we can achieve... we are going to unite this amazing country... I will work flat out from now on'*. As it is his first conference speech as the UK's Prime minister, he makes every effort to create an appropriate image and demonstrates his gratefulness to those MPs who helped him to reach this high position. He identifies himself with the whole party using the pronoun *we* instead of *I*. Thus he emphasizes his unity with the Conservative party, the accord of Conservatives and Britain itself.

4) the interpretation of information (implemented through the tactics of acceptance of the issue and providing the positive information about the problem). Such strategy may be demonstrated in the speech of Priti Patel focused on the protection of Brexiteers: *'British people felt great disappointment towards this house of politicians over Brexit... I'm afraid Mr. speaker this motion today is another disappointment to everyone who voted to leave the EU...'* Speaking about a new delay of Brexit and terrible agreement conditions Priti Patel describes the existing problem and suggests a subjective opinion on it. Implementing the strategies of discredit and the interpretation of information, she designates her disagreement with the government policy and demands new problem-solving decisions to the existing problem.

The second set includes those problems which are not connected with the 'Brexit' situation. Nevertheless MPs continue to propose new ideas on various matters. For instance, the traditions of the British Parliament include the so-called "Maiden speech" – the first speech to Parliament, which serves to create an image of a new MP. As an example we may consider Heidi Allen MP's



Maiden Speech: *'I'm so proud to represent the people of Cambridge... Today I can sit on my hands no longer. My decision to become an MP is a recent one... my television showed me the country that was falling apart, my country... I'm sorry but I believe the opposition benchers are wrong to say that we must not touch tax credits'*. In her speech Heidi Allen touches upon an urgent issue and manages to present herself on the side of Shadow cabinet, emphasizing the necessity of reforms (in the present case the strategies of interpretation of information and self-representation have been identified).

Every analyzed political polycode text is also characterized by a set of iconic elements. Although visual materials are rarely used for promoting the presentations by British politicians, they still accompany them with different gestures and colour which serve as markers emphasizing particular elements a speaker wants to pay attention to.

**Conclusion.** To sum up, it could be stated that modern political polycode texts are the key instrument in implementing different strategies and tactics to interact with the audience. Describing the 'Brexit' situation British politicians realize a great number of communicative strategies in order to achieve the intended target. At the same time fewer strategies and tactics are used when describing minor issues, which do not directly concern British foreign policy. Thus, our study has revealed that political discourse is characterized by manipulative nature for the purpose of conducting propaganda which is carried out with the help of various pragmalinguistic methods.

1. Анисимова, Е.Е. Паралингвистика и текст (к проблеме креолизованных и гибридных текстов) / Е.Е. Анисимова // ВЯ. – 1992. – № 1. – С. 20–25.
2. Паршина, О.Н. Российская политическая речь: теория и практика / О.Н. Паршина. – М.: ЛКИ, 2007. – 232 с.

## **ENGLISH BORROWINGS IN THE FRENCH LANGUAGE: MAIN SPHERES OF USAGE**

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It is worth mentioning that our world is constantly undergoing various changes: new discoveries are taking place, new laws are being adopted, and various programs are being developed. There are changes in every language of the world. There is a need to identify some phenomena or events that appear in the ultimate of these processes.

At the beginning of the XXI century, France began to observe a trend of "tide" of English borrowings in the French language. Undoubtedly, this is due to the expansion of the sphere of international relations, which led to the fact that English has become the language of international communication. Also, one of

the reasons for the dissemination of Anglicism is the presence of the English-speaking population in France.

The purpose of the research – to establish the spheres of usage of English in French.

**Material and methods.** The material of the research was 64 Anglicisms, selected from the French magazines “VOGUE” [2], “Elle” [1], published in October. During the research, a descriptive method, a solid haul method and elements of a static analysis were used.

**Findings and their discussion.** The main reason for the appearance of English borrowings in the French language is the so-called “rapprochement of languages”, which is very clearly manifested against the background of vocabulary. In the process of development, languages constantly came, and also continue to come into close contact with each other. Contact refers to the interaction of two or more languages that directly affects the structure of languages. The appearance of borrowings is provoked, first of all, by historical prerequisites, as well as by the relations of the French people with different nations.

Borrowing is a process in a result of which a foreign element, part, and, above all, a word or a full-valued morpheme appears in the language and then becomes fixed. Borrowing is part of a completely foreign language that has been transferred from one language to another using language contacts.

Nowadays it is impossible to find at least one language in which there would be no borrowings from other languages. A fairly developed tendency among modern youth is also observed: to adopt English words, but try to pronounce them in French. Therefore, borrowings can be divided into those that are fully adapted by the language and partly adapted borrowings.

Analysis of the identified material allowed us to highlight the spheres of usage of English in French:

1. “Internet and social networks” (12): *poster, blog, e-mail, message, tweet, internet, chat, repost, followers, shocking!, meeting.*
2. “Appearance” (8): *make-up, lifting, look, baby doll, blond, volume, un effet plus cool, soft.*
3. “Fashion” (7): *fashion, adopte des coloris pop, bijoux ũthiques pour un shopping, top, a l’allure rock, folk fashion, casual.*
4. “Cookery” (8): *cheesecake, chips, fish, sandwich, fast-food, whisky, toast, un red velvet cake.*
5. “Sport” (8): *golf, rugby, football, match, tennis, volleyball, jogging, coach.*
6. “Clothing” (7): *uggs, body, jeans, sweetshirt, slip, bikini, frac.*
7. “Transport” (6): *yacht, car, auto, parking, karting, scooter.*
8. “Music” (6): *pop star, jazz, rock-n-roll, fan, show, clip.*
9. “Cinematograph” (2): *horror, dũguisements de stars.*

From the analysis, it can be emphasized that the most widespread in the French language, due to its frequent application on radio, television, as well as in glossy magazines, were words related to the Internet and social networks. The large number of groups concerned with fashion and appearance is explained by the fact that most of the words did not have French equivalents. At the same time, the words of the “Cookery” group are not represented by a very large number of words, however, are also widespread. Most “Sport” group words refer to traditional sports, more common in America and England.

**Conclusion.** Thus, the following spheres of the usage of Anglicisms in French can be distinguished: “Internet and social networks”, “Cookery”, “Fashion”, “Sport”, “Music”, “Clothing”, “Cinematograph”, “Transport”, “Appearance”. The tide of English borrowing increased significantly at the beginning of the XXI century along with the development of Internet resources, social networks, as well as new technologies.

It is also worth noting that despite all the borrowings that are used in French, it does not lose its uniqueness and continues to remain primarily the language of the Romance group, with all the features inherent in it in the process of active development.

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2. VOGUE [Electronic resource]. – Date of access: <https://www.vogue.fr/>. – Access date: 29.10.19.

## **TRANSLATION OF COMPOUND WORDS IN R. BRADBURY’S STORIES “451° FAHRENHEIT”, “DANDELION WINE”**

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Languages play a huge role in human life. They considered the means of understanding various concepts, such as culture, mentality, traditions. This is how the art and thoughts of people have always been transmitted from generation to generation.

Also, do not forget that the language is multifunctional. We read a lot, develop a lot, learn something new, and then master some skills. Due to the language, people can understand each other, and it also provides the basis for the creation of new forms of literature that are folded in different languages. Equally important, that literature as a whole is not only the art of the word but one of the methods to comprehend the world, humanity, as well as oneself.

Certainly, the leading role in Modern English word formation is played by composition. A characteristic feature of compound words is the ability to express relationships conveyed by a free collocation, as well as the ability to

name objects and phenomena. Undoubtedly, the author's compound words, which are created for specific cases, are especially difficult to translate.

Translation of fiction becomes an important task because the functioning of compound English words creates additional difficulties for their translation into Russian.

The purpose of the research – to identify the features of the translation of compound English words into Russian.

**Material and methods.** The research was based on the material from Ray Bradbury's novels "451 ° Fahrenheit", "Dandelion Wine" using comparative-typological and descriptive methods, as well as the etymological research method.

**Findings and their discussion.** The main goal of any literary translation is to achieve unity of content and equivalence of the texts of the original and translation. The main task of a piece of art is not so much the exact reproduction of the original as the capacity to correctly show the author's idea, preserving the imagery, as well as the stylistic monotony of the original work. Very often, English compound words cannot be translated into Russian without discrepancies in structure due to differences in the grammatical structure of languages. However, even these discrepancies do not interfere directly with the meaning of the compound word. The translation of compound words, which differ considerably in component composition, represents a certain practical complexity: it requires the translator not only to understand the meaning of the compound word in the original language but also to know the possibilities of forming compound words in the target language.

Compound words come at blinding speed in our speech. The emergence of more and more new words in the language contributes to the desire of a person to simplify his speech.

A compound word is a combination of two or, more rarely, three foundations, functioning as a single unit and distinguished as a special lexical unit in the sentence due to its integrity (auto ring, republic-wide, telecardiography, beneficent, air-blown, belt-connected, traffic-actuated) [3, p. 159].

The most common example of the formation of a compound word in English is the model "noun + noun" (N + N), as a single-morphemic word structure. However, the process has no typicality; the proportion of Russian is lingual so that here the case has a two-morphemic word structure. However, this is absolutely not typical of the Russian language, because here we have a two-morphemic structure of words.

In our work, we will adhere to the traditional classification of compound words by I.V. Arnold:

1. Compound words formed by simple addition of words:

Tomb-world – metaphor, a sample of a dwelling is compared with a grave: tomb *могила* world *мира*.

Breakfast *завтрак*: break *остановка*, *задержка* и fast *быстрый*, *поститься*. Fast in its old meaning "быть твердым в своем решении не есть". Early Christians believed that people should not eat in the morning before church

service (they should "fast"). After the service, they were allowed to break their "firmness in the decision not to eat" and have breakfast (to take "breakfast").

Blown-glass (sky) (*небось «точность опрокинутая чашка»*): blown *гонимый ветром* glass *стаканный*

2. The words of the second group that we highlighted are compound words in which the basics are connected by a connecting vowel or consonant:

Salesman *продавец*: sale *продажа* man *человек*.

3. Words included in the third group are compound words in which the basics of significant words are connected with the basis of a preposition or other form word:

Hide-and-seek *прятки*: to hide *скрывать* to seek *искать*.

Rain-or-shine *при любой погоде*: rain *дождь* shine *свет*.

Jack-in-the-box *попрыгунчик*: jack *пружинный переключатель, стойка* box *коробка*.

4. Abridged words:

Jell-O *желе, jello*.

5. Parasyntheton:

Flour-haired *беловолосый; волосы, цвета муки*: flour *мука* hair *волосы* + ed.

Broadcaster *диктор, вещательная компания*: broad *широкий* cast *распределение ролей, состав исполнителей*.

Corn-haired boys: corn *кукуруза* и haired (hair *волосы* + ed – suffix). In this example, the boy's hair is compared in color to corn.

Ray Bradbury's creative work focuses on occasionalism. Occasionalisms is individual author's neologisms created by the writer according to the unproductive word-formation models existing in the language and used exclusively in circumstances of this context, as a lexical means of artistic expression or language play. The presented category of words belongs to the category of unequal vocabulary, therefore, their translation from one language to another is of great interest:

Soap-faced\* *безликие, равнодушные*: soap *мыловар* face *лицовка*+ed.

Pollen-fired\* (bees) *обрежменные пыльцой (пчелы)*: pollmen *пыльца* fired *уволенный*.

Black-beetle-coloured\* (helmet) *чермный блестящий шлемник*: black *чёрный* beetle *журка* colour *цвету* + ed.

**Conclusion.** Thus, we can conclude that the study of compound words in a limited production allows determining the significance of compound words more accurately. In particular, combinations with metaphorical meaning, in conveying the ideas of the work, as well as its key images. Most often, compound words are transmitted into Russian with phrases or simple nouns, much less often compound words. Of the huge number of identified compound words, the basis is made up of nouns (52%) and adjectives (40%). A very small part of the compound words is expressed with numerals (0.5%), verbs (2.5%) and adverbs (5%).



We also may note that the main ways of translating English compound words into Russian are descriptive constructions (60%) and a simple word (36%).

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## **RUSSIAN LEXEMA “УРОК” AND ITS SEMANTIC COMPLIANCE IN ENGLISH**

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Deep and comprehensive mastery of professional vocabulary is a prerequisite for a philologist training. Being a means of nomination and communication, such vocabulary also performs a cognitive function. And in pedagogical activity this is an essential tool of educational impact on students. Possession of a professional word, understanding the shades of its meanings is an indicator of the level of professional mastery of a teacher. And especially important is such a comprehensive possession of the word in the work of the translator. One of these words, widely known, actively functioning in completely different spheres of communication, but often complicated by the problems of polysemy, is the word "урок" ("lesson"). This word is usually perceived and used as well-known. And this means that it is used without close attention to its content in a particular speech situation. Meanwhile, in philological activities (pedagogical and translation), the definition of the shades of the meanings of a word is a necessary condition for obtaining the desired result.

The aim of our work is to try to determine the features of the formation, development and expansion of the meanings of the word “lesson” in Russian and, on the basis of this, determine the modern semantic space of this word in Russian in comparison with English.

The relevance of the topic is determined by the need to strengthen the practical component in the process of training specialists. To solve this problem, it is necessary to equip students - future philologists with modern knowledge, methods and pedagogical technologies.

**Material and methods.** The material for the study was collected as a result of studying various textbooks and reference books, dictionaries, as well as a questionnaire survey of second-year students of the Faculty of Philology. As a result, 10 dictionary entries were compiled for the most typical meanings of the word "урок" ("lesson") in Russian and English. The resulting material was subjected to linguistic analysis using the comparative-descriptive method.

**Findings and its discussion.** The main, widely known today meaning of the word “lesson”, both in Russian and in English, is a period of time (usually 45 minutes) in secondary schools during which students of the class, under the

guidance of a teacher, solve cognitive problems in the program of one of the subjects. However, such a meaning of this word was recorded in our language relatively recently.

Note that the common Slavic words *урок* and *речь* from a historical point of view are related. They have a common ancient root *-рок-* / *-рек(ч)-*. The word *урок* literally meant “what someone said, what was said.” In the history of the Russian language, the noun lesson has repeatedly changed and expanded its meanings. The most ancient meaning of the word “урок” (“lesson”), fixed in the monuments of Old Russian writing, is *договорённость, уговор, условие*. Then the word *урок* began to mean *налог, платёж, штраф* (tax, payment, fine), as well as *поучение, наставление, назидание* (edification). Later began to call work (task), which had to be completed by a certain date. And only relatively recently, in the 18th century, the word “урок” received the meaning that every first grader knows today - “lesson”. We find confirmation of this in “Материалах для словаря древнерусского языка” I.I. Sreznevsky, in which 21 meanings are given with which the word “lesson” was used in various Old Russian texts.

In the Old Russian language, in the word *у-рок-ъ*, the prefix *у-* and the root *-рок-* stood out, which historically alternated with *-рек-*. Compare the old Russian forms of the verb: *я реку – ты речеши – он речеть*, that is *я говорю – ты говоришь – он говорит*. The root *-рок-* (*-рек-*), as we see, had the meaning ‘говорить’, ‘сказать’ (*‘speak, say’*). This root today with such a meaning is preserved in many words, for example: *изречение, нареkania, предрекать, пререкаться, пророк, порок, порицать, отрок* (from old Russian *от-рок-ъ* – ‘teen boy’). From the same series and the well-known word *речь*. The prefix *у-* gave this word the meaning of completeness, completeness of an action, obligatory execution of a rule or action.

This value of the prefix *у-* can be observed in modern Russian, for example: *говорить – уговорить, нести – унести, баюкать – убаюкать*. We can highlight the prefix *у-* and in the word *указать*, in which we highlight the historical root *-каз-*. Compare: in Belarusian *казаць* – in Russian language *говорить*.

Thus, the original meaning of the word *урок* we can define as ‘высказанное поручение, которое должно быть обязательно исполнено’. Some of the modern meanings of the word lesson and the adjectives derived from it still remain to some extent connected with its original meaning: : *урочный час, сверхурочная работа*.

For students studying English, these differences in meanings are important because they can be expressed in different lexical units, which can cause significant translation difficulties. As an argument, we consider 10 semantic groups of the Russian lexeme “урок”, which we identified as a result of studying various linguistic sources, and the form of transmitting its meanings by means of the English language.

1. Занятия по какому-либо предмету либо промежутку учебного времени в школе: урок – lesson.

*Русск.:* Урок литературы. – *Англ.:* Literature lesson.

*Русск.:* На первом уроке мы выполняли контрольную работу. - *Англ.:* In the first lesson, we performed the test work.

2. Полученный жизненный опыт: урок - Lesson

*Русск.:* Это будет для них хорошим уроком. - *Англ.:* It will be a good lesson for them.

*Русск.:* Это будет тебе хороший урок вежливости. - *Англ.:* It'll be a good lesson in civility.

3. Время учебных занятий в школе: урок - class

*Русск.:* ученики опоздали на урок. - *Англ.:* students were late for class.

*Русск.:* Мой первый урок. - *Англ.:* My first class.

*Русск.:* Уроки заканчивается в 2 часа. - *Англ.:* Classes end at 2 o'clock

*Русск.:* Уроки уже закончились. - *Англ.:* Class are over.

4. Время после учебных занятий: после уроков - after school.

*Русск.:* Остаться после уроков. - *Англ.:* Stay after school.

5. Время, когда происходит процесс обучения: урок – school.

*Русск.:* Урок ещё не закончен. - *Англ.:* School is not finished.

6. Научить: урок – tutorial.

*Русск.:* Я мог бы дать вам урок. - *Англ.:* I could give you a tutorial.

7. Наказать, проучить: урок – example.

*Русск.:* мы должны преподать ему урок. - *Англ.:* We have to teach him a example.

8. Получить жизненный опыт: урок - teach.

*Русск.:* Это мне урок. - *Англ.:* It will teach me.

9. Готовиться к занятиям: урок - to study.

*Русск.:* Мы должны учить уроки каждый день. - *Англ.:* We have to study every day.

10. Делать уроки, выполнять домашнее задание: урок – homework.

*Русск.:* Я делаю уроки вечером. - *Англ.:* I do my homework tonight.

**Conclusion.** The common Slavic noun "урок" has come a long way in the development and transformation of its meanings. In the history of the Russian language, these changes went through the development and gradual destruction of polysemy. Other languages (both many Slavic and Germanic) for each new meaning created (borrowed) a new lexical unit. Therefore, the complete coincidence of the meanings of the Russian noun "lesson" and English "lesson" is observed, as a rule, only in the last, "educational" meaning. This circumstance must be taken into account in professional educational and translation activities.

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## THE DEVIATION FROM THE TRADITIONAL ACCENTUATION NORM AS THE REFLECTION OF ITS INSTABILITY AT THE PRESENT STAGE

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Currently, the number of participants in public communication is growing rapidly. As we know, in the late XX–early XXI century the linguocultural significance of the oral public speaking, its participation in the formation of the norm of the literary language and in the determination of the codification and language policy have significantly increased. This contradictory situation determines the particular relevance of modern linguistic research conducted on the basis of oral public speaking. In addition, the study of pronunciation norms requires constant monitoring of “live” speech of native speakers of the language, analysis of weak points of the system.

The purpose of this study is to identify and characterize the deviation from the traditional accentuation norm that functions in the Russian oral public speaking of educated residents of Vitebsk, reflecting its instability at the present stage.

**Material and methods.** This study was conducted on the basis of “live” oral public speaking, fragments of which were recorded independently in the period from 2012 to 2019 during regional news releases on the TV channels “Belarus 1”, “Belarus 2”, “Skif”, “Vitebsk”, as well as at the conferences and meetings in various institutions of Vitebsk. For a more detailed analysis, fragments of this recorded speech were converted into two graphic forms: spelling and phonetic transcription, while all the speakers’ features were preserved.

The total amount of analyzed material is 15495 phonetic words of 213 respondents.

**Findings and their discussion.** As a result of the study, a number of phonetic words were revealed that were massively pronounced with a deviation from the traditional norm and reflect the instability of the modern pronunciation norm. In addition, these accentuation violations correspond to the development trends of the language. In this article, we will examine in detail one of these deviations.

The pronunciation of the word «обеспечение» with the emphasis on the fourth syllable (instead of the codified pronunciation with the stress on the third syllable *обеспéчение*) attracts attention. For example: *обеспечéние руководителей* (the head of the state educational institution, 04/10/12, meeting); *для обеспéчения безаварийного газоснабжéния* (chief engineer of the enterprise, 02/01/18, TV channel "Skiff"); *обеспечéние занятости* (employee in the Department of Internal Affairs, 06/12/18, TV channel "Vitebsk") and others. It should be noted that all respondents who used this word in speech stressed the fourth syllable.

The main criteria for determining the normative status of linguistic facts are the criteria of usability and non-contradiction of the language system. This use of the word «обеспечение» meets the specified criteria. L. A. Verbitskaya

notes, that «those variants, that do not contradict the system, win and become normative» [1, p. 380].

Analyzing the modern usus of public communication, many linguists talk about the effect of the trend towards linguistic variation. It should be noted that modern orthoepic dictionaries are also characterized by recognition of a wide variation in pronunciation and a decrease in the number of prohibitive letters. So "Russian Spelling Dictionary" (the Russian Academy of Sciences, edited by V.V. Lopatin) notes the emphasis on the fourth syllable in the word «обеспечение» as acceptable [2].

**Conclusion.** Manifestations of the dynamic theory of the norm, which is generally accepted now, are reflected in the «live» speech of native speakers. It makes possible to identify and observe the occurring regulatory changes.

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## **THE PROBLEM OF SOCIAL INEQUALITY IN JANE AUSTEN'S NOVEL "PRIDE AND PREJUDICE" AS A GLOBAL ISSUE OF THE 19TH CENTURY**

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The problem of social inequality is considered to be a particularly urgent problem in the 19th century. The cause of social inequality is the division of society according to national, social, class or any other characteristics. Previously, it was manifested in the form of persecution or even worse violence.

In the nineteenth century there were defined criteria of good bridegroom in noble society. The groom had to be well-born, wealthy and educated. A nobleman who married a simple peasant woman was considered an outcast in his family.

Nowadays, the problem of social inequality is quite relevant. First of all, the reason for this problem can be the existence of people who believe that our world is divided into representatives of the rich and poor classes. And accordingly, such beliefs may lead to complications in society and in the world as a whole.

The problem of social inequality is often raised in the works of the 19th century. In this article we look at this problem on the example of the characters of Jane Austen's "Pride and prejudice" and find out the consequences of such opinions.



The aim of the work is to find out what is the cause of the problem of social inequality as a problem of the 19th century in J. Austen's work "Pride and prejudice".

**Material and Methods.** The material for the research is Jane Austen's novel "Pride and prejudice". Research methods are comparative and historical.

**Findings and their discussion.** The fact that during the time shown in the work, the girls married for convenience can't be a secret. Women who had daughters dreamed of marrying them to a man with a purse with a lot of money, but not a good soul.

Accordingly, rich men did not have the desire to bind themselves and their children by marriage with a girl with a small dowry, or even with a dowerless woman. Such a marriage was supposed to bring only misfortune and shame to the family.

Everything Mrs. Bennet dreams of in «Pride and prejudice» is to marry her daughters rich men. When were the rumors about the arrival of a rich man, the first thing she hoped was to introduce him to one of her daughters. However, her husband, Mr. Bennet, looks at things realistically and realizes that Bingley may not be at all concerned about girls with a small dowry. In this moment we may already see an example of social inequality.

One more example of social inequality in Jane Austen's «Pride and Prejudice» is the relationship first developed between the two Bingley sisters (Mrs. Hirst and miss Bingley) and Elizabeth Bennet.

On arrival at the ball, the girls behaved very brazenly, showing that they felt unpleasant in the company of such "low-grade" people. They try to do their best to avoid any contact with them. Darcy and the Bingley sisters were convinced that people of poor family, as well as people with non-aristocratic appearance did not know how to behave with dignity. And, moreover, they consider that such people have no place with wealthy society.

Also, it is worth mentioning the fact that when Jane felt bad in the house of Bingleys, and her sister Elizabeth run to her, the sisters had only negative comments about her untidy appearance, but not noticed how the girl from a simple family rushed to a sick sister. "To walk three miles, almost knee-deep in mud and all alone! I find it the worst kind of nonsense – it is the provincial disregard of all proprieties" [1].

A similar example may be observed in the behavior of Mr. Darcy, who arrived with his friend Bingley. Mr. Darcy agrees with the Bingley sisters saying: "your sisters are invited, and there is not a woman in the room but them with whom it would not be a punishment to me to dance." [1]

Also, Darcy, seeing that his friend is very favorable to a woman of a poor class, as a representative of a wealthy family, is sure that the girl wants to marry Bingley only for the sake of money and there can be no feelings from Jane towards his friend. In this regard, he tries to destroy their relationship. Fortunately, Darcy realizes in time how wrong he was with Jane and notes that

indeed, high feelings between people from rich and poor families are quite possible.

Moreover, we may also mention Lady Catherine de Bourgh, Mr. Darcy's aunt. At first, she is sympathetic to the Bennets and the Gardiners. It does not bother her that people from the poor class are staying at her house. However, hearing that her nephew is going to marry Elizabeth Bennet, the woman immediately remembers the origin of the girl and came to her with reproaches, without forgetting to remind her about it: "You are determined to ruin him in the eyes of friends and to ashame him in front of the world" [1].

As we can see, Lady Catherine de Bourgh's abrupt behavior leads to bad consequences, and after such actions her nephew stops all communication with her.

**Conclusion.** Jane Austen in "Pride and prejudice" shows us through the protagonists of the novel the problem of social inequality and the consequences of such opinions. Fortunately, in the novel we may see that all the situations were resolved more or less positively; however, we cannot claim that such a problem is solved as well in real life.

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## **THE ROLE OF PROPER NAMES IN THE CREATION OF A VISIONARY WORLD IN THE NOVEL 'NEVERWHERE' BY NEIL GAIMAN**

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Recently, there has been a tendency of creating literary works that take place in a parallel reality. The author acts as the Creator and sets the events in a special world, fictional universe, with its own history, culture and peoples speaking different languages that are often a made up languages. Such artwork is referred to a relatively new literary genres – speculative fiction and fantasy [2, p 338].

Fantasy covers numerous subgenres; some of them are high and low fantasy. Words 'high' and 'low' just refer to the level of usage of traditional fantasy elements within the work, and is not any sort of remark on the quality of work.

High fantasy is set in an alternative, fictional world, which is very different from the usual one. Such worlds often are inhabited by legendary creatures and wizards. At the same time, the "real" world may exist as a parallel one or not be mentioned at all.

By contrast, low fantasy is characterized by being set in the real world or very similar to it with the inclusion of magical elements. In this world people don't believe in magic, and unusual events are considered to be a miracle.

Urban fantasy can be viewed as a type of low fantasy; it takes place in a modern city of the real world and is opposed to rural or historical setting [2, p 340].

Due to the insufficiently studying of specific character of the visionary world description in fiction, the discussion is of great importance. The creation of a visionary world involves the use of linguistic means of all levels of language (phonetic, lexical, syntactic), the study of which will reveal the artistic possibilities of previously unstudied works of Neil Gaiman.

In this regard, the aim of our research is to study the peculiarities of the use of onyms in the novel.

**Material and methods.** Our research material is a novel by Neil Gaiman 'Neverwhere'. The methods of the research include contextual analysis, descriptive research, interpretation method.

**Findings and their discussion.** The novel is set in modern London or London Above as it was mentioned in the novel, under which there is a parallel world, London Below. The main characters are Richard Mayhew, an ordinary resident of London, a girl named Door, who is rescued by Richard.

The specific character of onyms in the novel is that common nouns are used as proper names. For example:

*"So is it short for Doreen?" he asked.*

*"What?"*

*"Your name."*

*"No. It's just Door."*

*"How do you spell it?"*

*"D-o-o-r. Like something you walk through to go places" [1, p. 48].*

Door is a girl from a rich and influential family, which is known for opening any doors and locks without a key.

*If it's the last door I open," she prayed, silently, to the Temple, to the Arch. "Somewhere ... anywhere ... safe..." and then she thought, wildly, "Somebody" [1, p. 14].*

When Door is trying to escape from her stalkers, Mr. Croup and Mr. Vandemar, she asks to the Temple and the Arch to help her. Common names are used as names of deities. There are tube stations in London named Temple and Marble arch.

*She grabbed Richard's shoulder, pointed to the device on the wall, the snaky S with the stars surrounding it. She gasped. "Serpentine," she said to Richard, to Hunter. "That's Serpentine's crest. Richard, get up! We have to run—before she finds out we're here ...*

*"Calm yourself," said Hunter. "But she's Serpentine," wailed Door. "Of the Seven Sisters" [1, p. 129].*

When Door's life was in danger, a bodyguard named Hunter, helped her to hide at the Serpentine's. Serpentine is a lake in Hyde Park, named for its narrow, winding shape, like a snake. Seven Sisters is an underground station named after seven ancient elms planted in a circle.

The onomastic space in the novel is diverse in subject matter and functioning. Neil Gaiman constantly uses the language game based on the etymology of onyms, on the phonic likeness of the analyzed lexemes.

*'Richard found himself pondering, drunkenly, whether there really was a circus at Oxford Circus: a real circus with clowns, beautiful women, and dangerous beasts' [1, p. 5].*

The novel begins with Richard sitting outside the pub and looking at the umbrella that was given to him. On this umbrella a map of the London underground was drawn. Literal understanding of the tube station name – Oxford circus and the etymologically related meaning of circus takes place there and artistically played by the author.

*"And where would that be?" he asked. She turned to him, pushed the hair from her eyes, and told him. "Knightsbridge," repeated Richard, and he began to chuckle, gently. The girl turned away. "See?" she said. "I said you'd laugh" [1, p. 63].*

*They walked toward the bridge. Anaesthesia handed Richard her candle-lamp. "Here," she said. "Thanks." Richard looked at the woman in leather. "Is there anything, really, to be scared of?" "Only the night on the bridge," she said [1, p. 75].*

After Richard gets to London Below, he wants to go back to his world, and only Door can help him do this. She can only be found in the Floating market. To get to the market he should cross the bridge. Here we see a play on words, based on the homonymy Knightsbridge (London district) and Nightsbridge. The word 'knight' is pronounced as 'night'. In the story, while Richard and Anaesthesia (guide) are crossing the bridge the darkness takes her and Anaesthesia disappears.

*'Door took a deep breath, and answered after a long pause. "It's a long story," she said, solemnly. "Right now we're looking for an angel named Islington" [1, p. 38].*

Door must get to the angel called Islington, who should help her to find out who hired Croup and Vandemar to kill her family. Angel is not only the tube station, but also a part of the Islington district, which is called 'The Angel, Islington'.

*'Richard was beginning to catch on. He assumed that the Earl's Court he referred to wasn't the familiar Tube station he had waited in innumerable times, reading a paper, or just daydreaming' [1, p. 151].*

*'The old man was larger than life in every way... That, thought Richard, correctly, must be the earl'* [1, p. 152].

*'Earl's Court, thought Richard. Of course. And then he began to wonder whether there was a baron in Barons Court Tube station, or a Raven in Ravenscourt or, ...'* [1, p. 164].

To find out how to get to Islington, the characters get to Earl at the 'Earl's court'. The name of the tube station becomes a proper name, so as Barons Court, Ravenscourt.

**Conclusion.** Thus, proper names in Neil Gaiman's novel 'Neverwhere' play an important artistic and plot-forming role in the creation of the visionary world that was described in the novel. The author uses common names as proper names, reveals etymological connections between them, thereby shows the specifics of the named objects and exposing the implicit meanings inherent in them.

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## **SLOGANS AND THEIR PRAGMATIC IMPACT ON THE AUDIENCE**

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Advertisement is regarded as a complex phenomenon that pervades all realms of human live. Analyzing advertisement, we should pay attention at the essential meaning of the slogan. The pragmatic influence of the slogan incorporates implicit inner content.

The aim of our research is to analyze the main classifications of slogan and to identify which psychological and linguistic techniques are used.

**Material and methods.** In our research we have use slogans from English newspapers ("Metro", "The Telegraph", etc.) The examples of advertisement from these sources have many techniques to enhance the pragmatic effect influence the consumers. During our analyzes we have used descriptive method and method of selection.

**Findings and their discussion.** Advertisement is a type of marketing communication, which passes on the information necessary for promoting or selling a product, service or idea. It is distributed through mass media (television, magazines, radio, mailing, billboards, blogs, social networks, sites, etc.) [1, p 34].



Analyzing the focus on a specific audience, advertising is divided into commercial “for business to consumers” (B to C) and “business to business consumers” (B to B) [2, p 75].

There is a model, which is used to describe the stages of advertisement. It is called AIDA. Acronym AIDA means Awareness, Interest, Desire and Action. There are four main functions suitable for every type of advertisement: communication function, marketing function, social function, economic function [1, p 112].

In some classifications, more advertising functions are distinguished, in particular: control (demand management); ideological (advertising should cultivate the values of nation in person), educational (determines the norms of behavior in various situations, determines what is acceptable and what is not), attractive (attracting attention), popularizing, evaluating (forming a positive attitude to the product).

Slogan is a catch phrase or series of words used as motto of the advertising campaign, individual firms and products.

The slogan has the following characteristics: brevity, rhythmic and phonetic repetition, contrast, language game and the effect of implicit dialogue.

Moreover, the slogan is always focused on its targeted audience. Lexical and psychological techniques are selected according to gender, age, profession, and sometimes even the region of potential consumers.

Furthermore, advertising applies a classification of the targeted audience based on the idea of archetypes. The term "archetype" is based on Carl Jung's theory that humans have an innate tendency to use symbolism to perceive concepts and that the subconscious has a great influence on deciding which advertisements people retain. Archetypal images are characters that represent deeply fundamental human needs and desires, and are often used in the advertising industry to subtly persuade consumers to purchase products or services. Although names vary, there are 12 archetypes: the creator, the ruler, the caregiver, the innocent, the sage, the explorer, the hero, the magician, the outlaw, the everyman, the jester and the lover [2, p. 204].

One of the most important classifications of slogans in accordance with the method of influence on the addressee is the division into slogans with an emotional accent and slogans with a rational accent.

Rational slogans carry information about the usefulness of the advertised product, focus on significance, relevance, practical use. It means they address to the logic of the consumer. For example, slogan of M&M's “*Melt in your mouth, not in your hands*”.

Emotional slogans draw the attention of the addressee to the symbolic value of the product, a sense of belonging of the addressee to a particular social group, therefore they suggest an impact on emotions and imagination. They are characterized by the presence of evaluative adjectives, figurative stylistic figures

and have a high degree of generalization (expressed by the words “always”, “never”, “everybody”, etc.) For example, slogan of Adidas “*Impossible is nothing*”, slogan of L’Oreal “*Because you’re worth it*” and slogan of Mercedes Benz “*the Star always shines from above*”.

According to the laws of psychology, a person makes a decision emotionally and then justifies it logically. Therefore, slogans with an emotional accent are more effective.

In order to influence the consumer a variety of linguistic techniques is used: quotes, reminiscences, allusions and parodies; epithets; aphorisms; metaphors; neologisms; rhyme; repetition; pun, wordplay, etc.

In addition, there are some psychological technics:

Modulation or unexpected ending; question; authoritative thesis; contrast comparison; incentive, etc. [2, p. 117].

To conduct a more complete analysis of slogans, we need to understand what the Maslow’s hierarchy of needs is. It consists of 5 levels: physiological needs, safety needs, love and belonging, esteem and self-actualization. The slogans often emphasize precisely these five levels of needs, because they causes a response from consumers.

For example, the physiological need is shown in the slogan of KFC “Fingers lickin’ good”. Belonging is used by Levi’s in the phrase “*Quality never goes out of style*”. We can speak about self-actualization in the slogan “*Have it your way*” of Burger King.

Social stereotypes replicated by slogans are manifested primarily in key concepts and intertextual relations with other texts. Social stereotypes are associated with the neoconservative system of values, which reflects the culture of the modern metropolis that is formed in the era of globalization and is devoid of ethnic signs. Neoconservatism itself is an adaptation of traditional bourgeois values to modern conditions.

**Conclusion.** To summarize the slogans need to consider various factors thus fully influence the audience. It is necessary to take into account the numerous classifications of the targeted audience and choose the most suitable for a specific slogan. There is a diversity of linguistic and psychological techniques to attract consumer attention.

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## OCCASIONALISMS IN LITERATURE FOR CHILDREN AND SCIENCE FICTION

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This work is devoted to the study of English occasionalisms and author's neologisms.

The actuality of this work is related to the object of research itself - an occasional word. In the presence of a large number of works devoted to the study of occasionalisms, the occasional word has not yet been adequately studied as a phenomenon that reflects the dynamics of the language, its form and meaningful potencies, and enables one to see the language in action. In addition, the occasional word is of interest and as a phenomenon directly related to the peculiarities of perception and understanding of new information. Occasional word, being not a linguistic, but a verbal phenomenon, undoubtedly belongs to the so-called untranslatable region, which has recently become increasingly in the focus of attention of translation studies.

The aim of the work is to determine the role of occasionalisms as means of expressiveness, to compare them with neologisms.

**Material and methods.** The material of this study are occasionalisms in children's books and science fiction in English, and the material of study are the features of the use of occasionalisms in books for children and science fiction. The definition of the role of occasionalisms helped to show their importance and importance as a means of expressiveness in modern English.

**Findings and their discussion.** Occasionalisms (from Latin occasional is) are speech phenomena that arise under the influence of the context, the situation of verbal communication for the implementation of some actual communicative task, mainly to express the meaning necessary in this case [1]. They are created on the basis of productive / unproductive models from the material available in the structure of the language, contrary to the established literary norm. Occasionalisms are created deliberately (in this they differ from spontaneously abnormal violations of the norm - speech errors), are always "tied" to a certain context, situations, understandable against the background of this context, the situation and the model or single sample, which served as the basis for their creation. Occasionalisms have increased expressiveness because of their unusualness against the backdrop of canonical, normative formations. They, as a rule, are expressively painted (with the exception of Occasionalisms in the field of terminological vocabulary). Occasionalisms are formed mainly in colloquial speech, they are used in the literary liter, in publicism. They can arise with a language game in colloquial, artistic and public speech, treat poetic liberties in verse speech. Occasional words are most often found in colloquial speech, in

children's speech, "in domestic conversations," in private letters, in comic poems, Occasional words are also created in poetry and in prose [2].

Occasional word is explored as a multifaceted phenomenon, which, firstly, is associated with the interaction of language and speech. On the one hand, the occasional word is a product of speech activity, on the other hand, it is the language system that makes it possible to create occasionalisms for certain models and is that contrasting background on which the occasionality stands out. Secondly, the occasional word is an important style-building tool in the language system [3].

Occasionalisms have always been created by authors of children's literature. Occasionalisms not only show how it is possible to use the word-forming abilities of the language, but also develop the child's imagination and imagination [4].

On the one hand, they are defined as a special type of neologism; on the other hand, they are often considered alien to the natural language and almost never enter into its vocabulary. Thus, occasionalisms do not depend on other words. Therefore, it is necessary to compare them with conventional neologisms in terms of:

- a) the relationship between the word and its meaning;
- b) use in context;
- c) motivation;
- d) word combination;
- e) place in the lexical system of language;

**Conclusion.** In the course of the study it was found that the significance of occasionalisms is closely related to the book context, and their inclusion in the language dictionary is very rare. A comparison of occasionalisms in the literature for children with science fiction has shown that the latter are closer to general neologisms than those created in books for children because they do not have any stylistic consequences and their only difference from general neologisms is that that they call concepts and objects that are not in the real world.

Occasionalisms can be called eternal neologisms, because they remain always new words, unlike neologisms, but only if they have not entered the language and have not become common words.

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## MELDING REALISM AND FANTASY IN EMILY BRONTË'S NOVEL "WUTHERING HEIGHTS"

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Emily Brontë's novel "Wuthering Heights" is a combination of fantasy and realism, in which fairy tale and Gothic elements 'haunt the edges' of the novel. The author created the most disciplined and complexly organized novel. It's quite a realistic novel: the description of the wild moors, the language, the manners, the dwellings and household customs of the scattered inhabitants. The main characters may behave in a totally realistic way. But there is one more side of the novel – a deeply mysterious and eerie one. Emily Brontë creates the unique fantasy world, brings lots of Gothic elements, lots of fantasy and fairy-tale elements into the novel. This ability to meld fantasy and realism makes her exceptional, singular and independent-minded.

Although "Wuthering Heights" is a classic of English literature, it is controversial because of its stark depiction of mental and physical cruelty. It challenges strict Victorian ideals regarding religious hypocrisy, morality, social classes and gender inequality. The novel also explores the effects of envy, nostalgia, pessimism and resentment.

The main purpose of our research is to analyse the ways in which Emily Brontë melded fantasy and realism in her novel "Wuthering Heights" and to prove the impact of her work on modern English literature.

**Material and methods.** The material of the study is the novel "Wuthering Heights", Emily Brontë's biography and Professor John Bowen's interview on exploring the intertwined nature of fantasy and realism within Emily Brontë's novel.

The methods of investigation are the following: data collection and historical analysis; a content analysis and a hermeneutic analysis for interpreting the novel; a comparative method and a generalization method to achieve the main purpose of the research.

**Findings and their discussion.** Emily Brontë in "Wuthering Heights" creates a world of passionate intensities, in which particular events are burned on the characters' and readers' memories, beyond reason, measure or reserve. Terror stalks the book and defines so many of its central relationships, concerned as it is with the ecstatic, eerie and mad. The book plays with death, courts death, stages death, even jokes with death, as we see when the dying Catherine is haunted by the face in the 'black press' [1, p. 158] or when Heathcliff breaks through the side of Catherine's coffin or hangs his wife Isabella's dog from a hook in the garden. She has been identified by some critics as a type of gothic demon, because she "shape-shifts" in order to marry Edgar Linton, by assuming a domesticity that is contrary to her true nature. It has also been suggested that Catherine's relationship with Heathcliff conforms to the



dynamics of the Gothic romance, in that the woman falls prey to the more or less demonic instincts of her lover, suffers from the violence of his feelings, and at the end is entangled by his thwarted passion. The book is fascinated by what lies at the limits of the human and is haunted by the forces of death and the diabolical, by compulsive modes of behaviour, by infantile and sublimely powerful emotions, by the force of irresistible will, and by the terrible consequences done to human beings by radical evil. The book is full of animals, spirits and ghosts, and those, like Heathcliff, about whom we can never be sure.

It is also a highly organised and rationally planned novel, with a complex time scheme and several interlocking narrators. It sets its extraordinary actions in a vividly realised family history and landscape. It is fascinated by the power of fantasy in people's lives – Isabella thinks of Heathcliff as “a hero of romance” [1, p. 190] until she learns the truth of his brutality – but those fantasies take their place within a carefully plotted story about inheritance, intermarriage and theft. The house at the Heights is situated in bleak moorland, and the wild setting is a powerful presence as the story unfolds. This text has multiple narrative viewpoints. The main perspectives come from Lockwood, a southerner who finds Yorkshire an alien place; and a servant, Nelly Dean, who moves between the Heights and Brontë's contrasting location of Thrushcross Grange. Heathcliff is a dark, enigmatic, brooding ‘Byronic hero’, a character type familiar to contemporary readers.

Emily Brontë was fascinated by extreme emotions, radically opposing mental and social forces, and the creation of moments of moral revelation and transformation were typical both of Gothic fiction and Victorian melodrama, but she could control, ironize and discipline those energies to serious purpose. Through the care she took to implant her writing in a particular history, landscape and material world, through complex time-schemes and inset narrators, through making Gothic into a mode of psychic exploration, she decisively extended the range and affective power of the English novel.

**Conclusion.** After carrying out our research, we have come to the conclusion that Emily Brontë in her well-known novel “Wuthering Heights” incorporated the fantasy and fairy-tale style with realism.

Emily Brontë's only novel, published in 1847, is a vivid example of blending realism, fantasy, romance and the Gothic. It is immoral and abhorrent; at the same time we may praise its originality and ‘rugged power’.

“Wuthering Heights” contains elements of gothic fiction and the moorland setting is a significant aspect of the drama. We may refer to it as a fiend of a book – an incredible monster. It only seems that places and people have English names there. “Wuthering Heights” is a great example of Gothic Literature, owing in no small part to the madness, decay, setting, and perhaps something a bit out of the ordinary.

This novel is exclusive – its Yorkshire world, limited by Wuthering Heights on the moorlands to the north and Thrushcross Grange in the leafy valley to the south, bears no relation to society outside. Its character list is limited. Conventional

plot material is done away with: the people in this novel don't have professions but feelings; they do not do but are. It is tempting to read *Wuthering Heights* as a symbolic poem, a metaphysical allegory of the destruction of cosmic harmony. Emily Brontë took great pains over factual accuracy in the novel – the central characters are set in an utterly everyday world. Everything in this novel exists at once on a literal and metaphorical level. It is contrasted with the amoral imagination, fantasy. The most impressive parts are those dealing with the bond, greater than love, that binds Catherine and Heathcliff, and there's something demonic in their lawless love and agony. But Emily Brontë also makes the reader aware of the evil and destructiveness in such wild passion and of the creative good in the second generation lawful love that forms the happy ending.

Emily Brontë, the greatest of the Brontës, shows most clearly that, for all their limitations, the strength of the Brontës lay in imagination and courage, in melding fantasy and reality.

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## MYTHOLOGICAL CONCEPTS IN THE NOVEL BY J. FOWLES "THE MAGUS"

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Understanding of myth in modern literature is interpreted differently. Researchers define this concept as a phenomenon of a certain reality, something sacred, as well as the imagination and illusion of various people and nations. In world literature, myth is an artistic medium. Writers have been interested in myth since ancient times, when people more than anything believed in supernatural powers. But over time, interest in this phenomenon has not disappeared. Writers began to show particular interest in myth in the twentieth century. This concept is clearly manifested in the novel by the English prose writer John Fowles "The Magus", which allows us to look at myth in the context of a mythological work.

The relevance of the research is to identify in the literary text of John Fowles "The Magus" universal codes of the mythological system.

The aim of the research: to study mythological concepts in the novel by J. Fowles "The Magus."

**Material and methods.** The research material: the novel by the English prose writer John Fowles "The Magus". The research methods: ncomparative method, context analysis method, biographical method.

**Findings and their discussion.** John Fowles is an ardent admirer of Greek literature, Greek myths and its philosophy. For some time he lived in Greece and later called it his second homeland. He created a large number of works that affect the theme of Greece (the novels “The Magus”, “Mantissa”, the treatise “The Aristos”, the essay “Islands”, “The Greece”).

One of the most famous masterpieces of Fowles is the novel "The Magus". The novel contains the so-called "riddle in riddle", an allusion that appears before the reader as an intellectual challenge. In the novel you can find a number of references to legends, for example, to the poetry of T. Eliot, the Homer's "Odyssey", D. Defoe's novel "Robinson Crusoe" and others. Among allusions, borrowings from ancient mythology stand out. They are practically not studied, therefore they are of particular interest to researchers.

John Fowles pays particular attention to mythology, as he takes as a basis the loss of communication in the modern society between the spiritual past and present. This concept is called demythologization. Therefore, the mythology in the novel restores the lost connection and allows a person to find their original integrity.

In “Magus”, the space on the Greek island of Fraxos immediately allows the reader to plunge into a myth: incredible beauty of the Greek landscape, ancient sculpture, mythical heroes. The hero exclaims: “I entered the miracle zone ... I felt like a hero of a legend, the meaning of which is incomprehensible, but at the same time to comprehend the meaning is to justify the myth, no matter how ominous its further vicissitudes” [1; p. 301].

One of the main mythological episodes in the novel is the myth of Odysseus. This theme is very close to Fowles, as “The Odysseus” itself is connected with the image of the island. As in the myth, Nicholas went on a journey to find himself and, returning home, to find that there was the purpose of his wanderings. The only difference is that Odysseus went on a journey around the world, and Nicholas went on a journey through the labyrinths of the subconscious, in order to find his own “I” and rethink the attitude to the surrounding reality.

The Fowles novel contains other mythological images and plots. For example, the myth of Theseus's journey to Crete and his victory over the Minotaur and the myth of Orpheus's journey to Hades.

The similarity of the protagonist of “The Magus” and Orpheus can be seen in the test that Orpheus underwent in the kingdom of Hades and which Nicholas suffered from the magician Conchis. Nicholas said: “Some actions are expected from me, some Orpheus feats that open the way to the underworld” [2; p. 449]. Nicholas descended into the underworld, because, as in the myth of Odysseus with Eurydice, Conchis hid Nicholas's lover underground. And being in the underworld and returning from there is an important stage in the dedication of the hero.

Note that one of the main myths in the novel “The Magus” is the myth of Theseus, and one of the central images is the labyrinth. Fraxos became a labyrinth

for Nicholas, where he wanders to solve secrets. When Nicholas falls into the traps, setting by Conchis, he more than once identifies himself with Tessey. For Fowles, the labyrinth as the afterlife, salvation from there symbolizes rebirth, and the center of the labyrinth is true self-knowledge. The passage of Tessey's labyrinth meant his rebirth. Nicholas, on the other hand, must be reborn metaphorically, that is, to find himself.

Maurice Conchis is one of the central figures identified as mythological characters. Conchis is represented by Fowles as Zeus, Hades, the pagan god, demon and wizard. The similarity of Conchis and Hades is undeniable. Like Hades, Conchis is rich, possesses qualities such as hospitality and generosity, his omniscience leads Nicholas to the idea that he is constantly being watched.

Another special detail in the image of Conchis is “monkey eyes”. A monkey is considered a creature with multi-valued symbolism. She knows how to parody and has a huge variety of behaviors, which shows her both positive and negative traits. Monkeys were worshiped in Ancient Egypt, India, China and Africa, but Christians endowed it with more negative traits, endowing it with qualities such as vanity, love of luxury, vice, and the devil.

Certainly, Conchis is also identified with Poseidon, the god of the seas. This is suggested by his navy shirt, his shoes are stained with salt, and cold sea water flows in the shower room of his house. By the order of Conchis, a statue of Poseidon was erected, which again sends the reader to the image of this deity.

Mythological prototypes also have female images in this novel. One of them is the image of Astarte (in Western mythology - the goddess of love and fertility). Astarte is the prototype of the Greek goddess Aphrodite and the Roman Juno. According to myth, Astarte fell in love with Adonis and went down to hell after him when he died. Conchis identifies Nicholas with Adonis, and Lily-Julie with Astarte. But Lily is just an illusion, and at the very end of the book, Nicholas realizes that Alison was his only love. After completing all the trials of the labyrinth, Nicholas gets to the center of the labyrinth and realizes that only Alison was his true love.

**Conclusion:** after analyzing allusions and mythological images in the novel by John Fowles “The Magus”, you can see the whole path of becoming the main character. Through all the suffering and trials of the main archetypes, the protagonist gradually moves towards finding harmony and integrity, establishing the lost connection between man and nature. After passing all the trials, Nicholas finds himself, his true self, which significantly changes the main character. Nicholas becomes experienced, aware of the bitterness of deprivation and loss. He receives invaluable experience and returns from Fraxos matured, updated, lost his illusions and ready for a new life.

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## THE PECULIARITIES OF THE TRANSLATION OF THE GERMAN YOUTH LEXIKON

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In order to translate words and expressions of the German youth slang translators first try to find equivalents. It is rather difficult to do that is why it is better to use different techniques and methods of translation. In some cases it is impossible to give the equivalent, this phenomenon can be explained by the cultural and social aspects of the original language. This peculiarity is also typical for the German language. Teenagers use countless number of words and expressions referred to non-equivalent lexis.

The purpose of the reveal the trends and ways of the translation of the German youth lexicon.

**Material and methods.** As a material for the research the magazines and the newspapers Spiegel and Burda, Stern, Tageszeitung were chosen. The most important methods of translation of the youth German lexicon were singled out and studied: descriptive and analytical, comparative and analytical, comparative, contextual analyses.

**Findings and their discussion.** First of all, it should be mentioned that present-day German youth has specific interests which result in similar lexical-semantic groups in the German slang words. Therefore, we use to search for equivalents mostly.

The equivalents of the words should be characterized in the following way:

1) a full equivalent – the ability to find a word that completely matches a word in the source language;

2) a partial equivalent – an equivalent that has incompatibilities with a word in the source language or its meaning;

3) calquing is a word-for-word translation from one language to another. Calquing as a translation technique is the basis for the translation of borrowed words in intercultural communication, we use calquing in cases transliteration can't be used the meaning is not fully transmitted for example, die Klamotten – clothes, Edel-Look – fashionable clothes, das Date – a date, dancen – to dance [1].

Certainly, we can't always use calquing, transliteration and other translation methods due to the cultural characteristics of one or another language, in this case we use the descriptonal method. This method has a negative side – its complexity and verbiage. Therefore, this method is successful in cases where it is possible to give a short explanation: Style-Klau – ьbernommene Idee des Kleidungsstьcks – an illegally appropriated idea to design clothes, Fitness-trick – Tricks, mit deren Hilfe man fit bleibt – a means to be fit constantly.



The descriptive method is used in the translation of the German abbreviation and mostly it can be applied to the translation of the correlate abbreviation with its micro context. Method is used in some cases where the application of the above-described techniques is difficult or quite impossible that often occurs when in the dictionary there is not this reduction (Dn – Du nervst – you're annoying, enough! wz – willkommen zurück – welcome back, As – Ansichtssache – it depends on your point of view).

Girls' names have connotative meaning of attractiveness and in this way they can be translated with the stylistic equivalent or with the word of literary language, for example, in order to denote the notions of 'an attractive and a pretty girl', in the German language can be used these words:

- Puppe – (literally. doll), informal style: pretty girl;
- Perle – (literally. pearl, pearl), informal style: treasure;
- Blume (literally. flower), informal style: beauty, pretty girl;
- Hase – (lit. hare), informal style: beautiful girl, hare;
- Schnitte – (literally. hunk), informal style: cute, beautiful girl [3].

In the youth vocabulary there is a number of idioms. By the translation many idioms do not have some exact Russian equivalents, that is why we have to use words of spoken or literary language (wie eine bleierne Ente schwimmen – to swim like an axe – jmd. Fahrt wie eine bleierne Ente – the girl who can't skate; Blumen schneiden – to take drugs; Der hat wohl nicht alle am Christbaum Kugeln? – out of mind, out of control).

Moreover, in the German youth vocabulary, the majority of words are anglicisms, therefore it is very difficult to find the equivalent. In this case the translator needs to know two foreign languages. For example, Outfit – attractive, Kleidung – beautiful clothes, der Beauty-Trend – der Schönheitstrend – fashion trend, Battle – Wettbewerb – competition, PC-Freak – jemand, dessen Hobby Computer ist - a person who is keen on computers [2].

**Conclusion.** Consequently, we are convinced, that translation (oral and written), as well as the translation of journalistic texts, is a rather complex, lengthy and multifaceted process. The main task of the translator is to transmit what the author intends to say to the reader, keeping the style of the narrative. During the translation process there are various mistakes which lead to mistranslation, loss of information, and, consequently, loss in quality of the translation.

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## THE PECULARITIES OF TRANSLATION OF ENGLISH ABBREVIATIONS

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At present time abbreviations enlarge their quantity, especially in mass media. Everywhere more and more of new organizations, structures and notions appear. Thus, the relevance of our research comprises that there is a tendency to abbreviate the means of information transmission, as well as to reduce the time of its transmission. According to N. V. Basko, the main idea of the shortening of the lingual units is to transmit the maximal number of information for the minimal period of time [1, p. 80].

The purpose of our research consists in the revealing the basic types of abbreviations in mass media and the analysis of the difficulties while their translation.

**Material and methods.** English abbreviations used in British mass media, namely, in the Guardian (online newspaper) are the material of our research. The methods applied during our research include descriptive and comparative, analysis and synthesis.

**Findings and their discussion.** As stated above, abbreviations save our time and this is a huge advantage, however, there are some drawbacks that they may provide. First and foremost, every language has its own system of abbreviation and its peculiarities. So, to translate it correctly we should pay attention to the context and the domain of terms in the foreign language.

Let us consider another problem concerning abbreviation features. The rapid assortment of the correct variant in the target language comprises a lot of complications. There are two reasons of this difficulty we may face. The first one is that a translator must know the organization, for instance, that is mentioned. It is connected with non-expanded new abbreviations encountered in certain types of texts. The second one is to give the correct definition of the abbreviation. It is much easier to explain the estimated meaning of abbreviation than to give the analogy even in your native language.

To begin with, we made an analysis of the online newspaper “the Guardian. International edition” and emphasized the following types of abbreviation published in mass media:

I. The exterior politics nowadays is the most stirring topic in the whole world, that’s why the focus on the wars and various military conflicts hits the headlines of all newspapers. Thus, *military abbreviations* comprise the essential part in mass media. They can be divided into the names of armament (ADA – air defense artillery, DEW – distant early warning, BCT – Basic combat training, DZ – drop zone, IRBM – intermediate range ballistic missile), military organizations (DIA – Defense Intelligence Agency, GAO – General Accounting

Office, NATO – North Atlantic Treaty Organization), military posts and ranks (CS – Chief of Staff, BOR – British other ranks, ADC – aide-de-camp).

Some examples of usage of these abbreviations:

– “GAO, a congressional investigative organization, looked at five recent fraud cases at San Diego naval bases, covering more than \$660,000 in spending” [2].

– “To try and give their respective countries the best chance of early detection, a system of DEW stations, air bases and “occasional” runways was constructed on both sides of the Arctic Ocean and down the length of Greenland” [2].

II. Besides, we should highlight an enormous group of abbreviations meaning *international organizations*, because they comprise the majority of English abbreviations (GA – General Assembly, ECME – Economic Commission for the Middle East, the ECCHR - European Center for Constitutional and Human Rights, UN – United Nations, SC – Security Council of the United Nations, IAEA – International Atomic Energy Agency). This type of abbreviations has a wide distribution and is commonly spread.

Some examples of usage of these abbreviations:

– “These charges send an important message to survivors of Assad’s system of torture,” said Wolfgang Kaleck of the ECCHR. “We will continue working to ensure that the main perpetrators of state torture under Assad are brought to justice – in Germany or elsewhere” [2].

– “UN summit: Macron says US and Iran must resume nuclear talks – as it happened” [2].

Decoding these shortenings doesn’t cause any difficulties while translation, as they became a habitual unit in the terminology of newspapers.

III. Another type of widely spread word reductions is *abbreviations from state organizations*. This type encounters in the articles on economic and political subjects. However, such organizations not so well-known as those stated above. Let’s consider some instances of the most internationally known state institutions: Cabei - Central American Bank for Economic Integration, CIA – Central Intelligence Agency, AMA – Australian Medical Association, AAUN – American Association for the United Nations, etc.

Examples of their usage:

– “But the AMA president, Dr Steve Hambleton, said anything that prevented people getting to the GP was a concern” [2].

– “The Cabei, the largest investor, has simply stopped loan payments rather than seek a formal break in contract” [2].

IV. At present time jurisprudence holds the significant place in almost all spheres of the contemporary human’s life. It ceased to be a field-specific domain, that’s why *legal abbreviations* as well as the groups of abbreviations above became common to find in English mass media (ICC – International

Criminal Court, FBI – Federal Bureau of Investigation, LCIA – The London Court of International Arbitration, CFR – Code of Federal Regulations, etc.)

Here are some examples of usage of these abbreviations:

– “*There has been no concerted international effort because Syria is not a party to the treaty that established the international criminal court, and Russia and China have vetoed efforts to mandate the ICC to set up a special tribunal for Syria*” [2].

– “*The clash over the supply deal is to be heard by LCIA, a dispute resolution forum provided for in the Rusal shareholders' agreement*” [2].

The identification of the abbreviation is merely the part of the difficulties a translator may face and solve. He also must know how to translate it correctly. So then, we are to distinguish several means of abbreviation translation. According to L. S. Barkhudarov [3], he considers the following methods of its translation:

1. Transliteration and transcription – the transmission of the spelling and the pronunciation of the word by graphic units of the target language. Examples of transliteration – NATO, UNICEF and ones of the transcription – CNN, BBC.

2. Loan translation – literal, word-for-word translation of every element of a phrase (UN, USA, EU, etc.)

3. Descriptive translation – there is no equivalent of the combination of words in the target language.

4. Free translation – with the help of the analogy of the word combination (US government, US diplomat, the UK).

**Conclusion.** The analysis of the articles in the newspaper “The Guardian. International edition” showed that the prevailing amount surely comprises the abbreviations from the definitions of international organizations. However, we should take into account that politics integrates all the domains of our modern society, so that such groups as state organizations, military and legal notions encounter more and more often. The articles on the topic of law are the most difficult, as the abbreviations in such texts are not so well-known. To summarize, the principal peculiarities of abbreviation translation are:

- the correct identification of the abbreviation shown in the text;
- the choice of the right method of translation of the abbreviation.

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## AUDIOVISUAL TRANSLATION AS SEPARATE DISCIPLINE

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More recently, the audiovisual translation (AVT) has been treated as a separate form of translation for many solid reasons. First, the AVT is a tool that spreads information or, sadly, disinformation fast. Also, the audiovisual content provides entertainment and serves educational purposes. Secondly, the cinema industry is incredibly popular in Belarus these days, that is why AVT is becoming more and more important and in demand as a separate service and, consequently, branch of translation science [2, p. 8].

It is a common misperception that the main challenge of AVT is only about the syntax and embedding the audiovisual content, though it is far more. An attempt has been made to classify different approaches to ATV and work out guidelines on AVT translation.

The aim of the research is to investigate the influence and role of AVT in modern field of translation, and to study its peculiarities and types of AVT which help people to learn and master foreign languages.

**Material and methods.** The studies of foreign and domestic scholars, outdated and new approaches to translation have been used as the material. The following research methods have been used: the analysis of reliable resources and AVT experience from around the world and a critical approach to the outcomes made by Kozulyaev A.V., J. Diaz-Cintas, A. Remael, etc.

**Findings and their discussion.** A.V. Kozulyaev proposes the factors according to which AVT can be considered as a separate area of research: 1) audiovisual translation – is a constrained translation due to the external limitations related to the language and communicative situation; 2) audiovisual translation is polysemantic; 3) audiovisual translation requires knowledge of different strategies of semantic analysis and synthesis [1, p. 4].

Nowadays such types of AVT can be distinguished as:

- 1) voice-over
- 2) subtitling
- 3) dubbing (lip-sync)

Audiovisual programs use two codes, image and sound, films represent and actualize a particular reality based on specific images that have been put together by a director. Thus, subtitling – dubbing and voice-over – is constrained by the respect it owes to synchrony in these new translational parameters of image and sound (subtitles should not contradict what the characters are doing on screen), and time (i.e. the delivery of the translated message should coincide with that of the original speech) [3, p. 9].

Today subtitling is becoming more and more popular because, first of all, it's cheaper than dubbing, for instance, and secondly a lot of people prefer watching films with subtitles because it helps to dive completely into the



atmosphere of a film, as it makes it possible to follow the original speech which is full of emotional weight of original actors. Namely, subtitling is rather useful for educational purposes [3, p. 12].

According to statistics, in countries, where subtitles are preferred, language proficiency and comprehension are much higher than in countries which prefer dubbing. Watching films with subtitles allows the viewer to enrich the vocabulary and get acquainted with the pronunciation, which is a passive form of mastering a foreign language. However, in some countries where there are two and more official languages dubbing is used more frequently in order to save the culture and the first original language [1, p. 7].

When creating subtitles, it is necessary to save the logic of the construction of the original text. In order to comply with the logic of the narrative, it is desirable that each subtitle represents a semantic and syntactic whole. In some cases, it is not possible to fit a complete sentence in one subtitle, then it is appropriate to resort to subtitle segmentation. In the process of creating subtitles, we should remember that human memory capacity is limited, so too long sentences it is better to divide into shorter ones [3, p. 28].

Written speech in subtitles is almost always a brief version of spoken language. Subtitles can not and should not convey all the details of oral speech in the original text. Subtitles always involve compression of the original text, but at the same time the translation should remain qualitative. Also, in the process of subtitling partial or complete omission of information is possible. These two techniques are typical for subtitling and more often they are used in combination with each other, which leads to revision of a text. Compression of information is necessary in most cases and it depends on the genre, context, speed of information. Very often compression of information can lead to positive moments in a translator's work. Compression gives a translator a certain freedom and the result of such freedom is a translation that meets the expectations of the audience, for instance, in some emotional situations, it is more important to keep the rhythm of speech than to keep the details [2, p. 33].

Modern translators now can find and use special programs for creating subtitles, for subtitle embedding such as Subtitle Workshop and Aegisub and etc.

**Conclusion.** The statistics of AVT experience from different countries states that the film industry remains a popular means of entertainment and education, it proves AVT significant and hands-on. To be a success, audiovisual translators must take into account not only common theory of translation itself but also nonverbal components of communication and extralinguistic aspects. Also, AVT looks at the peculiarities of a viewer's perception, keep the logic and naturalness of the presentation, preserve significant information, group information according to semantic fragments. It is recommended to process and adjust to the target language the content on every language and speech level: from phonetics to semantics and non-verbal elements. Existing programs for subtitle embedding allow translators to optimize the process of AVT, i.e. a

translator can set the parameters for the read rate, for the maximum number of characters in the subtitle line, for checking the finished translation text for mistakes. Despite the improvement of technical means, a translator takes a leading role in the process of AVT. It requires special knowledge and expertise not only in linguistics and translation but also in informational technology and software as well as in basic programming. For this reason, it is recommended to study AVT as a separate discipline as it treats the content from a different perspective.

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## **“THE LIEUTENANT OF INISHMORE” BY MARTIN MCDONAGH IN THE CONTEXT OF MODERN BRITISH DRAMA**

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Martin McDonagh is known to the general public as the director of feature movies – “In Bruges”, “Seven psychopaths”, “Three Billboards Outside Ebbing, Missouri”. However, it was the McDonagh's dramaturgy, that became one of the most striking manifestations of writer's talent.

In the 1990s his plays earned instant recognition in both Britain and the United States for their unconventional style and provocative content. The aestheticization of emotional and physical violence in a rather crude form, black humour are the main features of McDonagh's plays.

Even though the writer himself is an Irish citizen, in his plays he openly ridicules the two-century Irish liberation movement.

The purpose of the study: to study the features of McDonagh's play in the context of modern British drama.

The dramaturgy of the modern Irish playwright Martin McDonagh isn't explored enough in foreign and domestic criticism and literary criticism, because it is a phenomenon of the modern literary process. Therefore, the study will complement the literary material on the development of modern foreign drama.

**Material and methods.** The material of the study is the play “the Lieutenant of Inishmore island”. In this work we use the method of contextual analysis and historical method.

**Findings and their discussion.** The Lieutenant of Inishmore is a play about political terrorism in rural Ireland that won the Olivier award (the British equivalent of a Tony) for best Comedy.

Padraic is the "mad" leader of a republican splinter group. He is a true patriot, but to achieve his goals he uses extremely cruel methods. Padraic has been kicked out of the IRA (Irish Republican Army), because he is too bloodthirsty for them. In his hometown, he is called "mad Padraic". The only living creature that he cares about is a cat - Wee Thomas:

*«And was his since he was five years old. His only friend for fifteen year. Brought him out to me when he started moving about the country bombing places and couldn't look after him as decent as he thought needed. His only friend in the world, now»* [1; p.14].

Wee Thomas dies in an accident and Padraic, abandoning all his business, rushes home, ready to destroy everything in his path.

The basic idea is that the terror of the main character turns out to be meaningless.

*«So, all this terror is absolutely for nothing? Four dead bodies, two dead cats... my hair! My sister is heartbroken. Spent all the Shoe Polish»* [2; p. 68].

Obviously, Padraic is the embodiment of long-lasting violence in Ireland that is still being heroized and aestheticized. People died. And for what? For a "cat" who hadn't died at all? The cat becomes the cause of horror and murder.

McDonagh ridicules such a "patriotism". And the point here is not even in the army, but in the methods, used by the patriots. The idea that more than two centuries of national resistance result meaningless, that is a sensitive issue in Ireland.

The idea of loneliness is also very important not only for this very play, but also for the others. McDonagh's characters live among people and at the same time live in their own world with their drawbacks, physical disabilities, criminal past. They drive themselves into a dead end of their own inner world, of their own beliefs and notice anything around them. However, all their actions come back to them. The law of the boomerang effect is an integral part of the play.

Padraic, who is going to kill people without trial because of the cat, eventually dies because of the same. All his actions now turn against him. Metaphorically, he kills himself. This is one of the shades of McDonagh's aesthetic of violence.

Another feature of the play is an enclosed space. It's usually either a prison or a pub or an island. Heroes are locked in their either internal and external worlds.

Isolation is inherent in all key spatial images and creates only a negative effect. It does not have a sense of security for the characters, but to the contrary, makes conditions in which there is nowhere to run. Heroes find themselves in a dead end and it brings them closer to spiritual or physical death.

Although McDonagh's plays have a traditional style, they are particularly contemporary in the perspective of the raised issue. The characters laughed at

each other, their speech accompanied by insults and obscenities, which give the plays a darkly comic tone. These verbal insults often end in physical violence and even murder.

Martin McDonagh puts at the centre of his works the closest and holiest relationships: between children and parents, husbands and wives, brothers and sisters. That makes the plays even more terrifying and frightening.

For example, Padraic is ready to kill his father. Mairead is trying to shoot her brother. Donny kills his mother. The fragility of these family ties causes a sense of moral instability and insecurity.

**Conclusion.** Thus, the aestheticization of violence is the main aspect of McDonagh's works. Anyway, McDonagh suggests that violence is actually an intimate form of social communication not just between characters, but also between the writer and the reader. The brutality of McDonagh's dramas creates a spirit of cynicism, to which a mockery of traditional depictions of Irish life is added. The author is shy of romantic images and uses them as material against which his dirty, realistic depictions of everyday life in ordinary cities reveal all the vices and absurdities not only of the Irish but of the society at all.

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## **THE INFLUENCE OF BIOGRAPHICAL FACTORS ON WORKS OF FRANZ KAFKA**

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Art and literature of the beginning of the XX century are marked with the appearance of lots of modernistic trends, one of which was expressionism, born in Germany and spread over Austria-Hungary, Belgium, Romania, Poland and Russia. Denying all the stable canons of the past this stream saw its aim in the creation of new abstractive images. One of the differences between expressionism and other modernistic concepts includes minimization or complete absence of buffoonery and provocation appropriate to dadaism, for example. Expressionists saw behind the outer cover of the world its deformed and negative nature. Full of subjectivity and author's sense perception works abound with grotesque and hyperbolised images excluding compositional harmony.

One of the most outstanding representatives of expressionism was writer and philosopher Franz Kafka. Since his childhood, Kafka was destitute of parent's support and felt like a foreigner to this world that was reflected on the

mood of his works and led to its main motives: estrangement, fault, nonsense and existential anxiety. Despite being warm-hearted and cheerful while communication with friends and colleagues, Kafka felt increasing loneliness and the deepest fear of reality.

The aim of the research is analysing the influence of biographical factors on works of Franz Kafka, tracing the reflexion of the author's psycho-emotional state on the development of his characters.

**Material and methods.** The material of the research is the works of Franz Kafka such as *The Metamorphosis* and *The Diaries*. The methods we used are biographical, comparatively historical and contextual.

**Findings and their discussion.** During studying and analyzing Franz Kafka's diaries some parallels between proper author's emotions and his character Gregor Samsa can be watched. So, for example, in his note of August 15, 1913, Kafka writes about the misunderstanding with his relatives, about specious empathy, about his wish of running away and being all alone. "Certainly, you are all strangers to me, – he turns to his mother. – we are related only by blood, but it never shows itself" [1, p.297]. In the same pessimistic direction, things are going in the work aspect of the writer's life. In the letter to his bride's father, he expresses his mind in the following way: "My job is unbearable to me because it conflicts with my desire and my only calling. [...] my job will never take possession of me, it may, however, shattered me completely, and this is by no means a remote possibility. Nervous states of the worst sort control me without pause"[1, p. 299]. Both themes, loneliness in a family and job as a cage, can be seen in the narrative *The Metamorphosis*.

When Gregor Samsa awoke one morning from a restless sleep, he found that he had turned into a terrible insect in his bed [2, p.7]. With these words Kafka begins his story, thereby setting the tone for the whole narrative. In one sentence, the author involves the reader into the disturbing world of the main character: restless sleep, insecurity in his bed, all these things emphasize the internal disorder and tension. Also, the author immediately introduces a key grotesque image. And this event is the only plot twist. The story is descriptive, it is focused on the details of the life of the characters. The life of Gregor Samsa is shown by a series of similar actions aimed at one goal that is the maintenance of his family. Automatism and routine existence of the main character is manifested in some moments of the story. For example, Gregor, who is constantly travelling, knows for sure that his alarm clock is set for 4 o'clock, and the morning trains leave at 5 and 7. Samsa hates his job, but cannot give it up because of a sense of duty to his bankrupt father, his sick mother and his young sister. With his endless sacrifice, the protagonist himself builds a consumer attitude at the side of his relatives.

Thus, having turned from the breadwinner into a social ballast, Samsa stops performing the usual function and gradually dies, as a rudiment on the body of his family. Thoughts about death can also be found in Kafka's diaries. "Viewed



from the outside it is terrible for young but mature person to die or worse, to kill himself. Hopelessly to depart in a complete confusion that would make sense only within a further development, or with the sole hope that in the great account this appearance in life will be considered as not having taken place”[1, p.316]. Reflecting the author's thoughts Gregor Samsa dies quietly, disappears as if he had never been born. The movement of life continues despite the loss of one element. Kafka himself finds the end of the story imperfect almost to its very foundations, which means that projecting himself into the image of the hero, the author does not see the right way out.

Speaking of self-projection, we cannot fail to pay attention to the note in the diary of February 11, 1913: 'Georg has the same number of letters as Franz. In Bendemann, "man" is a strengthening of "Bende" to provide for all the as yet unforeseen possibilities in the story. But Bende has the same number of letters as Kafka, and the vowel e occurs in the same places as does the vowel an in Kafka'[1, p. 279]. The same analogy can be made with the name of the main character of the *Metamorphosis*. 'Samsa' consists of five letters, including two repeated syllables, as in 'Kafka'. Also, the surname Samsa is formed from the Czech word *sám* (by oneself, alone), which emphasizes the depressive attitude of the character and the author.

**Conclusion.** Based on the arguments above, it can be concluded that the work of Franz Kafka was particularly influenced by the events of his own life. With his characters, the author expresses his position, which consists of depressive moods concerning reality, which is a common characteristic of expressionist writers. Developing the plot Franz Kafka is looking for a solution to his problems and anxieties that haunt him in real life. This indicates the reflection of the psycho-emotional state of the author on the formation of images of his characters.

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## PHRASEOLOGICAL UNITS WITH ONOMASTIC COMPONENT IN ENGLISH

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The relevance of the research is determined primarily by the increased interest of modern researchers in the linguoculturological aspect of the study of phraseology, which allows us to establish national-specific properties of the language, as well as to establish the role of phraseological units with an onomastic component in society.

The aim is to identify and describe phraseological units with an onomastic component, to reveal the connection between language and culture.

**Material and methods.** Actual research material: English PU (hereinafter - PU) with an onomastic component in the amount of 387 units. Research methods and techniques: descriptive method (by observation, generalization, interpretation and classification of factual material); continuous sampling method when working with phraseological sources; functional-semantic analysis of language material; etymological analysis of the studied phraseological units; quantitative analysis.

**Findings and their discussion.** In spite of the fact that phraseology is a relatively young science and as an independent discipline in linguistics arose only in the 40s of the XX century (A. A. Potebnya, I. I. Sreznevsky, A. A. Shakhmatov). Already at the end of the XX century, the works of scientists began to appear, in which the connection between phraseology and national culture was noted. V. N. Telia writes that the phraseological composition of the language is a “mirror”, in which the linguocultural community identifies its national self-consciousness; phraseological units impose on native speakers a special vision of the world, situations [5].

V. A. Maslova believes that: “phraseological units (PE), reflecting in their semantics the long process of development of the people’s culture, fix and transmit from generation to generation cultural attitudes and stereotypes, standards and archetypes [1].

The reason for such attention to phraseology is a clear tendency in modern linguistic studies to identify linguistic phenomena associated with the national identity of a particular people and their comprehensive analysis. The object of such interest is phraseology, and especially the part that contains a national component - a proper name.

An essential role in the formation of phraseological units belongs to the anthroponymic factor, since most of the popular phraseological units are associated with a person and various spheres of his activity. According to the English frequency dictionaries and other studies, the number of proper names is 3-4% of the total usage in fiction texts, while 2.5–3.0% of them are anthroponyms [4, p. 4].

Thus the greatest number of phraseological units is represented in the category containing real anthroponymy, which is associated with the names of prominent people of their time. Here are some thematic areas: phraseological units with the names of political figures (*Augustan Age, John Hancock, Big Ben, Blood Mary, Draconian laws*), scientists (*According to Hoyle, Admirable Crichton, To break Priscian's head, The Scavenger`s daughter*), soldiers (*All Sir Garnet*), athletes (*Annie Oakley*), writers (*Homeric laughter, Homer sometimes nods, Joe Miller*) etc.

Phraseologisms with an anthroponymic component is the largest group, its volume from the total number of phraseological units with an onomastic component is about 52%. This is due to the fact that proper names are part of the language, which reflects the history of the people, their literature, the uniqueness

of cultural traditions and life. Phraseologisms with proper nouns more and more clearly reflect the value orientations of society and become a means through which we can learn the culture of any nation.

Toponym - proper name of a geographical object. Geographical names reflect the attitude of the people to the phenomena of reality and are closely related to life. There is no doubt that the majority of phraseological units arose on a national basis and was “the fruit of the centuries-old mental and spiritual creative activity of the people” [2, p. 34].

Here we can distinguish some thematic areas: phraseological units with the names of countries (*From China to Peru, The eye of Greece, The Garden of England*), settlements (*The bird of Washington, Bronx cheer, New-York's finest, From Maine to California, I'm from Missouri, you've got to show me*), streets (*Carnaby Street, Coronation Street, Fleet Street, Downing Street*), water objects (*Set the Thames on fire, The Queen of the Adriatic*) etc.

The group of phraseological unit with the toponym component is the second largest and contains 86 units or 22%. This is due to the fact that toponyms appear in the language as a kind of conductor, which is connected with historical events in the life of the people and thus provides a link with socio-historical factors in different eras.

Mythonyms are the names of people, animals, plants, peoples, geographical and cosmographic objects, various objects that never existed. Mythonyms have a bright national cultural specificity, since their meaning is directly related to the history and culture of the people - native speakers. Mythonyms are a source of information about the earlier stages of the history of mankind [3, p. 86–90].

Examples of phraseological units with a mythical component: *Achilles' heel, The sword of Damocles, The Augean stables, Two-faced Janus, The cask of Danaides, Hermes' fire, A Herculean labour*.

Mythonym is an element that plays an important role in the system of language and culture. Therefore, this phraseological unit with a mythonym component is of great interest to scientists and researchers. We found 39 units, which is equivalent to 10%.

The Bible had a significant impact on the formation of the worldview and linguistic consciousness of different peoples of the world. The imagery and symbolism of the Bible provide a great opportunity for the metaphorization of the language and the formation of phraseological units. For the phraseology of many European languages, the Bible has become one of the most important sources of enrichment. PU with a proper name from the Bible began to appear in the process of using the Bible itself as a source of information - during constant sermons, various masses, and services.

Examples of such phraseological units: *Sodom and Gomorrah, The brand of Cain, Noah's ark, Solomon's wisdom, Adam's apple, David and Jonathan, The daughter of Eve*.

The study of biblical wisdom and its spiritual values is an important step in understanding the human worldview. Therefore, it is not surprising that numerous phraseological units were borrowed from this literature. 41 phraseological units were identified from the total volume of the material, which include various biblical names.

**Conclusion.** Phraseological units reflecting in their semantics the long process of development of the British culture record and pass on cultural settings and stereotypes from generation to generation. Therefore, it is so important to study phraseological units that include proper names because many of them have existed in the language for hundreds of years and can be an indicator of the wisdom of people who love accurate, figurative expressions.

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## **FATHER AND SONS' PROBLEM IN THE NOVEL "LAST ORDERS" BY GRAHAM SWIFT**

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There is a list of inexhaustible eternal themes in literature that do not lose their relevance regardless of social and cultural trends or political situation in the world. Eternal themes include the theme of life and death, good and evil, love, loyalty, duty, marriage, family relationships, as well as fathers and sons' theme. The novel "Last orders", created in 1996 by British writer Graham Swift deals with the last one.

The problematic of this novel in literary studies has not fully been covered. In particular, the articles "Epistemological crisis in Graham Swift's novels "Waterland" and "Last Orders"" [1], "Time in the novel "Last orders" by Graham Swift"" [2], and "Personalized story in Graham Swift's novel "Last orders"" [3] are devoted to the crisis of cognition, the peculiarities of time category representation and the concept of the prevalence of private story in the novel, respectively. The problem of fathers and sons in the novel has not been studied at a fundamental level before.

Thus, the purpose of our research is to reveal the fathers and sons' problem in Graham Swift's novel "Last orders".

**Material and methods.** The material of our study is the novel Graham Swift's "Last orders". We used a descriptive method with elements of comparative analysis to study the novel.

**Findings and their discussion.** The book tells the story of four friends and their families. In view of the limited scope of our work, we would like to focus on the history of two families – the Dodds and the Johnson – the most striking, in our opinion, representatives of the generational gap in this novel.

Jack Dodds – the guest of honor because of or thanks to which (the readers are free to decide on their owns) his friends have a common mission – to carry out the last order. Jack was sixty-eight when he died from stomach cancer. He left behind the butcher shop for the good of which he had been working the whole life; June, the disabled daughter he had not once visited at the orphanage; four friends, and his last order: to scatter his ashes over the sea, from the pier in the resort town. That was the place where he and Amy had spent their honeymoon, the place where he had been truly happy. The couple intended to go there, trying to bring back the past, believing that it would improve their lives.

Aside from June, Amy and Jack had an adopted son, Vince, the youngest of those with whom Jack walked his last path. He is an auto mechanic since his youth had been fond of cars; although his father predicted he would be a butcher and get a butcher's shop as an inheritance (the name of the shop confirms this – "Dodds and son, fresh meat"). He had a relationship with Lenny's daughter. The girl had to get rid of the child. That was a great shock for her and she, unable to withstand the difficult circumstances, began to earn a living selling her body. Later Vince married the first that passed by beauty Carol and became the father of the girl Kat.

This is where we find the generation difference of the Dodds family. The older generation, in this case, represented by Jack, finds it important to pass over the business that he built all his life and in which, it should be noted, he succeeded. However, the younger generation is not ready to take the weight of this responsibility. It is important for Vince to find his own way, to devote himself to what he really likes – cars.

Amy and Jack were not fully reasonable in matters of creating a family and having children, career. If we imagine that, the spouses' life is a chessboard, then fate would be a virtuoso player, and our heroes would be just pawns in this game. Jack chose his wife due to jealousy, an animal instinct of possession, and Amy had simply submitted to circumstances: "But it was hops that brought us together, it was hop-picking that started it. The way your life gets fixed for you" [4, p. 327]. In addition, reading the novel, we have the chance to know why Jack chose this profession (or this circumstance has nothing common with the idea of choice?): "...Jack had never wanted to be a butcher in the first place, never. It was only because the old man wouldn't have it otherwise. Dodds and son, family butchers



since 1903" [4, p. 45]. The reader has a feeling that everything that happened is nothing but submissiveness to circumstances, a series of ridiculous accidents that caused the suffering of the characters. Such a pattern of behavior is alien to Vince. Despite the fact that he marries the first comer, but still chooses what he considers more appropriate (Carol, but not Sally with the child). The reader is free to judge the morality of the different generations' actions by himself.

So let us move further to the Johnson family. Ray Johnson is Jack's best friend. It was Jack Dodds who called Ray "Lucky" for his incredible luck at the front, where the heroes met, as well as for his luck in gambling (betting on horse races). Ray is married to Carol. Their relationships are far from ideal ones. They raise a daughter, whose name is Sue and is about to fly out of the parental nest. The reader learns that Ray has being loved Amy, the wife of his passed away friend, for the whole life, and even had an affair with her.

The generational gap is also clear in the Johnson family. The characters acknowledge this fact in the pages of the novel. Sitting in a bar, friends, and Ray, in particular, notices: "Should've been born later perhaps, like Vincey" [4, p. 83].

When Sue and her boyfriend Andy are packing for a trip, Ray noted: "But when they were gone I wished them well. I wished I was them" [4, p. 84]. In addition, Ray says with regret: "And another thing's still true, that they have it better now, better, easier, quicker" [4, p. 85]. He realizes that times have changed, that the younger generation has more opportunities, freedom. Sue studies at college. Her boyfriend wants her to go to Sydney with him. The answer is obvious to her. She cannot see any obstacles neither in the residence changing nor in being far from the family. Furthermore, she also has no worries about finishing her study abroad: "There's colleges in Australia, there's teachers in Australia" [4, p. 86].

**Conclusion.** Thus, the author pushes us to comprehend family values in modern society. The reader who grew up in the post-Soviet space, who was brought up in the spirit of communism sees the incredible contrast between the two polar life stances, ideologies.

The leitmotif is the idea that the heroes that represent of the older generation lived unconsciously, by inertia, went with the flow (career, marriage, the birth of children). It contrasts with the concept of the life of the new generation, which seeks to be on the crest of the wave, which is full of freedom, grasping, who strive to live fast (Vince, Mandy, Sue).

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## COMMUNICATIVE AND PRAGMATIC SPECIFICITY OF ENGLISH-LANGUAGE RADIO DISCUSSION

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In contemporary world the mass media exert a special influence over the opinion of society. Yet, the mechanisms of opinion formation remain poorly understood, and therefore require systematic linguistic investigations. Radio discourse, in particular, is of current importance because it reflects the latest trends in social reality. Due to the increasing human need to receive information, discuss it, form one's own views on a particular issue, in order to better navigate in the modern world, the discussion takes a prominent place and acquires an extremely important role as an independent genre of radio discourse.

In this regard, the aim of our research is to study compositional, pragmatic and communicative components of English-language radio discussion.

**Material and methods.** Our research material is English-language radio discussion, taken from [bbc.com](http://bbc.com) (October, 1, 2019) on such an urgent social issue as abortion in Northern Ireland. In our research the following pragmatic scheme of radio discussion is applied: *communicative strategy – tactics – language techniques*. The methods of the research include contextual analysis, logical and semantic analysis, interpretation method.

**Findings and their discussion.** The study has shown that compositionally the radio discussion opens up with the introduction and presentation by a radio host: *'Hi. This is Jane Garvey. This is the Woman's Hour podcast. It is Tuesday 1 October 2019'*. It's essential to mention, that in the introduction anaphora is used to implement the strategy of drawing attention. The introduction is followed by a problem statement with further appealing to the listeners to join the discussion: *'Today the anti-abortion posters...'* *'...you can take part as well. You can tweet at BBC Woman's Hour...'*

Stella Creasy, one of the guests, uses the strategy of self-presentation and employs the *tactics of appeal to feelings* to form a favorable image in connection with the need for trusting relationships with the listeners, as well as influencing their attitude: *'So I would be very clear that I have debates about abortion.... All the time I have debated and discussed ... I believe it is their fundamental rights.... And I have respectful debates. This is a campaign of stained harassment against myself'*. *'This organization has been explicated that*

they are *targeting* me as a *hypocrite* being pregnant'. 'I'm a *passionate* defender of free speech'. Stella Creasy tries to present herself at her best by means of introductory constructions containing such adjectives with positive connotation as *clear* and *honest*, forcing the listeners to trust her: 'So **I would be very clear** that I have debates...', 'To **be honest** what I'm really angry with...'. 'I **have to be honest** that the community...'. For the need of social approval, Stella Creasy uses *the technique of contrast*, emphasizing that she honestly fights for women's rights. The contrast is evident in the functioning of such words as *respectful*, *passionate*, on the one hand, and *stained harassment*, *targeting*, a *hypocrite* – on the other hand. At the same time Stella Creasy focuses mostly on the negative qualities of the company that acts as her opponent.

Using the pronoun *every* Stella Creasy embodies *the tactics of generalization* to show that she's worrying about every woman in her constituency: 'My heart went count to **every woman** in Walthamstow who have ever had miscarriages, that I have'. The same tactics is used by radio host Jane Garvey to show that Stella Creasy concerns about all women: 'Stella Creasy is trying to give women in Northern Ireland the same rights **that you, and I, and every other woman** in the country'.

The strategy of drawing attention in radio discourse is a technique that contributes to the effective organization of dialogue interaction. To pinpoint the attention upon the listeners Ruth Rawling uses *the technique of contrast* and parallel constructions to accomplish *the tactics of attention retention*: 'It's interesting **why Stella Creasy wants to cry victim** when **she is victimizing the unborn** in the womb'. 'We're **targeting** Stella Creasy because **she is targeting the unborn child**'. Ruth Rawling resorts to *the tactics of intimidation* using *grading technique* to get the listeners to concentrate their attention on the abortion issue: 'We will be **targeting** and other, you know, celebrities, people who **are supporting, and promoting, and pushing**'.

To capture the audience's attention to the problem indicated by Ruth Rawling and her company, radio host Jane Garvey refers to the guest using the *tactics of introducing an element of informality* with a help of pronouns *you* and *your*, *she* and *her*: '...the placards that **you and your campaign group** will holding', 'So **you and your fellow members of the Centre for Bio Ethical reform** UK...', 'Do you know from Ruth that **she and her group** are planning...?'

To achieve the strategy of persuasion the *tactics of appealing to emotions* has been realized: 'She's been a **prominent** campaigner for abortion rights... Stella Creasy is also been **public** about the miscarriages...'. We see that Jane Garvey touched upon a rather hard and personal topic for the guest. Using the adjectives *prominent*, *public* Jane Garvey shows to the radio listeners that Stella Creasy has no secrets from her supporters and definitely deserves their trust. She also employs the words with negative connotation to emphasize that women have abortions for their own personal, sometimes terrible, reasons: 'Unfortunately, not the life of the **desperately poor** woman, **who can't afford** another pregnancy or a young girl **who**

*has been raped by her stepfather*'. *'That will be for a multitude of very challenging reasons and in women and desperately challenging circumstances'*.

It should be noted, that Stella Creasy uses parallel constructions in her speech in order to facilitate the flow of information: *'When posters started appearing..., when the leaflets went caught with these graphic...'*. Ruth Rawling in turn uses the technique of parallel syntactic constructions to show her protest against abortion: *'It's the rights to kill an innocent human being in the womb'*. *'That is extremely distasteful to be killing babies in the womb'*. *'...every abortion violently ends the life of an innocent human being, of a child, in the womb'*.

In the following statements: *'...women will always require safe legal abortions'*, *'...women would die in numbers having backstreet abortions as they always did'*, the radio host uses antonyms *legal* and *backstreet* to message to the listeners the impact of anti-adoption law and its consequences. In expressing her understanding of the problem, Jane Garvey appeals to elliptical construction to convince Ruth Rawling: *'But you are a minority in this country. You really are'*.

Finally, the incentive strategy is implemented by means of parallel construction that contains an appeal to action: *'We need legislation. We need fair'*. Through equally constructed special questions the radio host compels Ruth Rawling to answer the question she is interested in: *'Have you thought of targeting, I don't know, the constituency...'*, *'Have you thought going and putting up the posters in those places?'* *'Have you considered doing that?'*

In turn, Ruth Rawling prompts the listener to think about the rights of unborn children, using rhetorical questions: *'What about the rights of the unborn child you know?'* *'What about the human rights of the unborn child? Don't they deserve the right to life?'* In doing so, she resorted to the language technique of repeating both the construction of the question and the repetition of the adjective *unborn* in order to win the addressees to her side. And finally, she invites the listeners of the radio station to visit her campaign website: *"People can go to our website cbruk.org and they will see..."*.

At the end of the program the radio host reads out the listeners' letters: *'There were many different points of view here'*. *'Jane was obviously pro abortion.... That's from Malik'*. In this case Jane Garvey thanks the participants of the discussion and attracts the listeners' attention with a new radio program referring to a famous writer: *'I was grateful to Ruth and to Stella for... she'll be talking to the novelist Joe Joe Moyers'*.

**Conclusion.** Thus, we can conclude, that radio discussion as a rule consists of such semantic components as the introduction and presentation, the greeting, the statement of the problem, the problem discussion, reading out the listeners' comments and farewell to the audience. During our research we have identified the key strategies of radio discourse: *the strategy of self-representation, the strategy of persuasion, the strategy of drawing attention and the incentive strategy*. Within each strategy certain tactics and language techniques serving the most effective means of persuasion have been established.



## THEMATICS OF THE COLLECTION “FAMILY VALUE” BY W. COPE

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Wendy Cope is a well-known contemporary British poet. She is the author of a large number of successful collections of poems that address important issues of human existence. Wendy Cope's work has not been studied much by domestic scientists, her poems have been little translated into Russian and almost never translated into Belarusian, but she is one of the authors who characterize the face of modern British poetry. The relevance of the study of the writer's work and the collection “Family Values” is due to the importance of those topics that the author raises.

The purpose of this work is to determine the specifics of the subjects of poems in the collection “Family Values”.

**Material and methods.** The material for the study was the poems of the collection “Family Values”. In this work, the subject of the collection by W. Cope is investigated using structural-typological and descriptive methods.

**Findings and their discussion.** Wendy Cope published her fifth collection, “Family Values”, at the age of 66. Compositionally, this collection includes 56 poems. There are poems about love (“Seeing You”), about the inevitable problems of aging (“April”), there are philosophical lyrics that arouse the interest of the readership of any era and any age. In this collection, the sad and joyful moods of the lyrical heroine are whimsically mixed.

Poems about aging, about the inevitable loss of family and friends, familiar sensations, about death over the years are becoming more frequent in the work of the writer. Her fifth collection contains more than a dozen poems of philosophical problems. A striking example is the poem “Sixty-one”:

“Sixty-one and on a diet.  
Will I end up or fat  
When my heart and brain go quiet” [1, c. 22].

The lyrical heroine assesses her condition and her life prospects with bitter humor. On themes and stylistics close to this poem and “My Funeral”, which begins ironically:

“I hope I can trust you, friends, not to use our relationship  
As an excuse for an unsolicited ego-trip.  
I have seen enough of them at funerals and they make me cross.  
At this one, though deceased, I aim to be the boss” [1, c. 25].

And then follow the reflections of the lyrical heroine about how friends should behave, so that in the end a person does not end up in the declining years alone. This poem ends with the words: “And if there aren't many people at my funeral, it will serve me right” [1, c.25]. W. Cope allows himself to joke when he writes about serious things, such as death. Thus, in the poem “Once I'm Dead” she notes:



“Once I'm dead, I won't mind being dead.  
Why worry? I don't want to say goodbye  
To everything, to me – the voice that said  
Once I'm dead, I won't mind being dead...” [1, c. 24].

In the poem “Keep Saying This”, Cope jokingly repeats the phrase “the party isn't over yet” five times, emphasizing that life goes on. Thus the author specifically fixes the reader's attention on a specific semantic nuance:

“Although you think you're very old,  
The party isn't over yet” [1, c.23].

Cope considers the topic of faith in God to be important. Evidence of this is her poems “Cathedral Carol Service”, “O Come”, “All Ye Faithful”. Her poems “A Christmas Song”, “Christmas Ornaments”, “Your Mother Knows”, “Sunday Morning”, “You're Not Allowed” are permeated with childhood memories, and care for children, features of children's perception of the world. W. Cope's poems make one think about what it means to be human, such as “The Month of May”. In “Boarders”, the lyrical heroine recalls that she was wittily teased by “too many long words” at boarding school [1, c.10] and laughed at for her talkativeness:

“I soon learned not to.  
Look at now I write” [1, c.10].

Family values, according to the lyrical heroine of the writer, should be based on mutual understanding between parents and children. Her story poem “Sunday Morning” emphasizes the idea of mutual understanding between children and adults. According to the story of the poem, the girl agrees to go with mom to Church, but then remains in the yard, and my mother gets angry at her daughter, willing to compromise, but allows himself to make fun of mom:

“It's better if you stay at home,  
She tells me angrily,  
Which means another ruined day  
I' or Mummy and for me” [1, c.12].

**Conclusion.** Ideological and thematic analysis of the book of poetry “Family Values” suggests that in this collection W. Cope focused more on understanding the foundations of human life. The writer is concerned with the themes of life and death, the transience of time, the problem of old age, loneliness, mutual understanding in the family, friendship, love. Although in the collection and there are poems of love orientation, but they are much less than in the early books of the writer, which is likely due to the awareness of the importance of family values in adulthood.

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## THE WORLD OF CHILDHOOD IN BRITISH AND AMERICAN TALES

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In the modern world, there is a tendency when people prefer to be on the side of classical works, that reflect significant problems not only of past times, but also of the present century. However, often such works are the basis for creating new, original literary texts dedicated to the problems of our time. At one time a breakthrough for the 19th century was the work of the English writer Lewis Carroll, and his fairy tale “Alice in Wonderland” had a great influence on the artistic space of the turn of the 19th and 20th centuries.

Already at the turn of the 20th and 21st centuries, the admirer of L. Carroll’s work, the English science fiction writer Neil Gaiman, modernized the theme of parallel worlds in the contemporary children's novel “Coraline”. It seems relevant to study how the classical traditions of a literary fairy tale, laid down by Lewis Carroll and transformed in the modern interpretation of Neil Gaiman.

The purpose of the study is to determine how the image of the main character in the works of Neil Gaiman and Lewis Carroll reveals a different view of the world of childhood in the context of two eras.

**Material and methods** Our study is based on Neil Gaiman’s “Coraline” and Lewis Carroll's “Alice in Wonderland” analyzed with comparative historical and contextual methods.

**Findings and their discussion.** Lewis Carroll in his fairy tale "Alice in Wonderland" for the first time showed a girl who didn't have a fear to discover a new reality, different from normalized Victorian society. Carroll took the basis of the tale from the real-life: Alice Liddell asked her friend Charles Dodgson (Lewis Carroll's real name) to write a story for her and her sisters' pleasure. Dodgson told the sisters about the adventures of the brave girl named Alice, who ran after the White Rabbit and ended up in the Underground Country. Alice is a typical representative of the Victorian era: she behaves like a true lady, always polite, but at such a young age she is dreamy and naive: “She had absolutely nothing to do, and sitting idle, you know, is not an easy task” [1].

As Neil Gaiman claims the condition of existence of the real courage: "when you're scared but you still do it anyway, that's brave "[2]. The work describes a typical American family: mother and father are constantly immersed in work and their affairs, they do not find time for their daughter Coralina, therefore the motive for this work is the problem of the relationship between parents and children. In the house where her family had moved, the girl’s curiosity leads her to a closed-door, which later became the entrance to a parallel reality. Little Coraline finds herself in a world where she has everything that she lacked in reality: caring for “other” parents, attention, delicious food and beautiful clothes... Only her mother from the other world was different in

appearance from the real one: her skin was white as paper, taller and thinner. And the main difference is instead of her eyes, there were two huge shiny buttons. This image did not bother Coraline at all, because she liked everything so much in her new house: “In danger? thought Coraline to herself. It sounded exciting. It didn't sound like a bad thing. Not really.”[3].

The plot of “Coraline” consists of several reminiscent to Alice. These two works are similar not only in the describing of main characters but also in the reflecting parallel worlds: restlessness and curiosity of both heroines served as an impetus for the development of actions. The end of the novels is similar, in which both Coraline and Alice wake up in reality. Both heroines are bored in their childhood world, developed imagination and fantasy move them into a world inaccessible to no one but them, but each of them wants to get out of it when danger is felt.

Let's pay attention not only to the main characters described in these novels but secondary ones. Cats become not only friends for protagonists in novels but also the creatures who lead both Alice and Coraline into another world. Both animalistic images are very similar to each other: in a parallel world, they can talk and are helpers for the main characters, who warn of the dangers that may haunt them in the children's imagination. They are also absolutely independent and appear only when they consider it necessary and important: “I am not crazy. My reality is just different from yours ”[1].

According to the laws of the genre, any fairy tale meets the antipodes of good characters with evil intentions. Coraline's fantasy created the opposite creature to her mother. This “other” one is very caring mother, it seems that she really loves Coraline, however, getting to know this character closer during the reading, it becomes obvious that this is just a mask behind which there is a selfish face who just needs to love someone: “In the button-like eyes of another mother, Coralina saw that she was just her property, and nothing more. So people look at the little animal at home, whose tricks no longer cause emotion ” [3].

Carroll's tale also has its doppelgangers from the world of evil the Red Queen. She freely cuts off the heads of characters who do not fulfil her instructions or simply do not like her. The feeling of power gives rise to cruelty and ruthlessness in her, however, Alice was the only one, who could tame the Queen.

One cannot but pay attention to the peculiarity of the historical era when the works were written. Alice's fictional world embodies a rebellion against Victorian society, which was characterized by strict adherence to the moral code formed by Queen Victoria. In the work, Alice is an opponent of her time: despite the brutal laws for the female population, she appears as an independent person.

Neil Gaiman describes Coraline as the “product” of his time. If Alice ran after the Rabbit in protest of her era, then Coraline from hopelessness. Modern time is characterized by a fast pace of life: modern people are in a constant hurry, concentrating on the pursuit of material values. Coraline's parents lived in

such a rhythm, and she wanted to learn, explore this world, therefore, because of her curiosity, she opened the door to a parallel reality, despite the danger, thereby reflecting courage and courage. Coraline can also be considered a protest against the time in which she lives because she does not give in to the orders dictated by a typical society.

**Conclusion.** So, noting the points of contact between the two works, we found that, despite all similarities, both Alice and Coraline are characters of different types, reflecting the features of the time in which they were created. Also, analyzing the world of childhood displayed by different characters, we can note that eternal themes not only do not lose their relevance these days but also acquire a modern sound that is understandable to today's reader.

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## PSYCHOLOGICAL AND PEDAGOGICAL DETERMINANTS OF THE ESTABLISHMENT AND FUNCTIONING OF THE EDUCATIONAL SPHERE

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### TEACHING DISCUSSION SKILLS IN FOREIGN LANGUAGE CLASSES

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A lot of scholars recognize the significance of discussion in foreign language teaching (E. Shantarin, S. Miloradov, W. Skalkin, G. Wiser, N. Ges, etc.). Nowadays one of the main goals of teaching foreign languages is the development of students' communicative competence. The discussion is considered an effective means of communication skills and abilities formation. It models a real situation of foreign language communication, creates conditions for motivated speech activity and determines the conditions under which "not the attitude to the object, but the attitude of people to one other concerning the object is in the center of the educational process" [1, p. 27]. That's why the subject matter of our research is considered relevant today.

The aim of our research is to analyze the main features of the discussion method in teaching, describing the stages and types of students' activity.

**Material and methods.** The material of our research is scholars' theoretical works, their fundamental states and conclusions. The methods of our research include the comparative method, the descriptive method and the method of the analysis and synthesis of information.

**Findings and their discussion.** The learning process, based on teaching discussion, is focused on the implementation of active work. This one is aimed at the development of reflective thinking, foregrounding and organization of listeners' speech experience as a starting point for communicative activities, focused on joint work on solving a problem. According to researchers' views, the features of discussion organization in teaching are:

- 1) participants' group work;
- 2) participants' interaction, active communication in the process of work;
- 3) verbal communication as the main form of interaction in the process of discussion;
- 4) structured and guided exchange of views, with the appropriate place and time of work provided, but based on participants' self-management;
- 5) focus on the achievement of learning objectives [2, p. 12].

The integration of discussion into the learning process requires the organization of several stages of training: the pre-discussion period, the discussion itself and the stage of control and correction. Some scholars



(P. Gurvich, E. Santorin) identify the following interrelated parts of discussion teaching: exposition (the introduction to the subject), pre-discussion (the identification of different viewpoints on the subject matter), the concept specification, fundamental information gathering, information analysis and its additional investigation [3, p. 153].

At the pre-discussion stage of training connected with a text analysis which is the basis of the upcoming discussion students are invited to do the following tasks:

- 1) express your point of view, providing a proving thesis;
- 2) pick up arguments and counterarguments for a thesis;
- 3) prove / refute a thesis, keeping it until the end of the argumentation;
- 4) make up inductive / deductive (direct, indirect) evidence;
- 5) choose some arguments to justify or to refute a thesis;
- 6) add new arguments to the current ones, relying on the additional material;
- 7) think over possible counterarguments, the supporter of other viewpoints could put forward to justify their views and try to refute them;
- 8) make up your own speech, consisting of three parts: a) your own point of view on the subject of the dispute and its substantiation; b) forestalling of counterarguments; c) their refutation.

On the pre-discussion stage organized, the discussion itself should be conducted, according to the projected plan or students' roles, if a discussion game is arranged. The main problem of this period is discussion management. All other issues are solved in the process of its preparation.

According to research works, devoted to discussion arrangement (K. Lines, L. Woods, K. Livingstone, L. Alekzander, etc.), the management of students' activity is limited to the pre-discussion period, the discussion itself is carried out with participants' full independence. Studies show that discussion management is carried out: 1) by the distribution of roles, whereby each participant has to perform their own task; 2) the partial distribution of roles, when team leaders are elected (if participants are divided into groups) and the moderator, who guides the discussion, gives the floor to opponents, summarizes the arguments and sums up the main points of discussion. These methods of discussion managing do not stir controversy among scholars.

At the stage of control and correction it is important to analyze the discussion course, the contribution of each participant to its development, as well as the mistakes made (E. Shantarin, A. Mirzoyan, E. Argustyanants, A. Shadrin, etc.). It is desirable to record the discussion with the help of a dictaphone, which helps to analyze and to conduct a detailed analysis of the discussion subsequently (F. Hayworth, K. Livingstone).

The control and correction of the discussion should be carried out in the following sequence: a proper analysis of the discussion and a postponed analysis, including thorough revision and correction of errors, made by students in the course of the discussion.

Authors of textbooks offer various forms of discussion: a free discussion and a spontaneously arising discussion; a discussion, based on some text material, conducted under the direct supervision of the teacher (L. Alexander), and a discussion between two groups of students, managed by team leaders or a specially elected moderator (H. Leong); dramatization of debates (F. Hayworth), etc.

According to the typology of educational discussions in a foreign language, there is a unison discussion, an opinion exchange discussion and a confrontational discussion [2, p. 83].

The unison discussion aims at justifying some points of view on the subject of discussion. It is conducted in the form of a "round table discussion" and presupposes strictly limited educational material and full individual management of activities by means of role cards.

The opinion exchange discussion aims at consideration of a wide range of views on a problem. That's why it should be arranged on the basis of a variety of educational material.

The confrontational discussion is conducted in the form of negotiations on a relevant issue or debates. It requires in-depth knowledge of the two main viewpoints on the subject under consideration. Consequently, the material should contain a large number of details that could be used to justify or refute a certain point of view.

**Conclusion.** In the process of our investigation we've studied scholars' research works on the subject matter and identified the general features of the discussion in the teaching process, its main stages (the pre-discussion stage, the discussion itself and the stage of control and correction). Our research proves that teaching any type of the discussion (a unison discussion, an opinion exchange discussion, and a confrontational discussion) cannot be considered an extracurricular activity only. It is one of the most important components of communicative language teaching. The discussion can stimulate students' mental activity, enhance motivation of learning a foreign language and create favorable conditions for achieving ultimate goals of education if the mentioned above educational peculiarities and methodological recommendations are taken into account.

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## THE USE OF SOCIAL NETWORKS TO CREATE RELEVANT INFORMATION SPACE AS AN INNOVATIVE METHOD OF TRAINING LAWYERS IN LEGAL CLINICS

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Recently, the Belarusian legal clinics are faced with the problem of a shortage of qualified personnel. Today we are witnessing a change of generations of teachers of legal clinics. Those who started this activity 10–15 years ago, give way to young people. In this regard, there is an acute question of the continuity of knowledge and competencies of teachers and curators of legal clinics in the long term. We see that young people do not express much interest in remaining in a legal clinic. Of course, there are many different reasons for this. However, after talking with talented students (potential curators, heads of legal clinics), we found out that the existing forms of legal education are simply not interesting for students.

Indeed, the forms of presenting legal information that have been established over the years become less effective over time. We understand that legal education should meet the needs of the current generation and become one of the mechanisms for achieving the Sustainable Development Goals. Legal clinics face a new challenge: promoting literacy of the population and the formation of a new way of thinking based on the priority of international standards of human rights and freedoms, using modern technologies.

The relevance of the research is due to the fact that modern young people spend most of their time in social networks and trust social media as a source of information.

The aim of the study is to search for new forms of education for students of the faculty of law, as well as improving the effectiveness of legal information for young people.

**Material and methods.** We investigated various approaches to improving the educational process in a legal clinic. In this study, the focus was on the use of social networks (Instagram), as one of the main relevant sources of information for young people. Scientific methods used in the research were analysis, synthesis, induction, deduction.

**Findings and their discussion.** Modern society requires a completely different approach to legal education. What was interesting 5–10 years ago, no longer has the same effect as before. At present, we see a sharp decline in interest among students of legal clinic and schoolchildren in legal education. Legal clinics need new forms of legal education, based on the priority of international standards of human rights and freedoms and the use of modern technologies. The project «Improving educational programs in legal clinics considering a changing generation of curators» is a mechanism for popularizing the activities of legal clinics both within the legal clinical community and

beyond. In addition, we strive to expand the circle of the target audience and increase interest in legal literacy among Belarusian youth.

Successful implementation of the project «Improving education programs in legal clinics amid a changing generation of curators» will allow legal clinics:

1) To prepare qualified curators of legal clinics from among talented students.

2) Educate a generation of lawyers committed to human rights values in their activities.

We selected the fastest growing social network, the forms of work with which is more acceptable for our research. Thus, Instagram was the most convenient social media according to our criteria. As one of the main forms of work with students was chosen the creation of thematic videos on legal topics. In the process of creating a video, the following steps can be distinguished: 1) tracking relevant information on social networks; 2) choosing a popular topic; 3) selection of regulatory legal acts on a selected topic; 4) adaptation of selected normative legal acts for understanding by people without a legal education; 5) script writing a video; 6) video recording; 7) processing the received material and posting it on Instagram.

**Conclusion.** Applying the elements of interactive education using social networks (Instagram) in the educational process in the legal clinic revealed following advantages:

– increasing students' interest in the educational process, as materials that are the most demanded in social media resources and cause the most discussion are selected for work;

– significant increase in the target audience covered by legal information. An important feature is the ability to identify and adjust the target audience by using links and hashtags under the publication;

– obtaining additional skills to work with legal texts, its adaptation for understanding by people without a legal education, focusing on the most important and relevant elements;

– obtaining skills to work with social media resources, mastering the basic skills necessary to create a video, as well as the ability to stand in front of the camera.

## **VIEWS OF MODERN TEENAGERS ON THE MEANING AND VALUES OF LIFE**

**Anastasia Boiko**

VSU named after P.M. Masherov, Vitebsk, Belarus

The meaning of life is a complex, ambiguous and not sufficiently studied problem. In our life, changes are constantly taking place in a social society, in connection with this, the idea of the meaning and values of life is changing [1, p.9]. The idea of the most basic things, for example, such as family well-being,

can differ significantly among the modern generation. Sometimes people simply question their meaning of life or even stop it seeing. Therefore, it is important to timely reveal the idea of the meaning and values of teenagers life in order to provide them with psychological assistance and support. In this regard, the problems of the meaning of life always remain relevant [2, p. 12].

The article is about to studying the attitude of a teenager to himself and society as a whole, understanding his place in the world and the meaning of life.

**Material and methods.** The research was based on the results of an anonymous survey of students of schools in the city of Vitebsk on the Internet, through the Google forms platform. The sample consisted of 30 respondents aged 12–17 years old. To achieve this goal, general logical methods were used (induction and deduction, analysis and synthesis, comparison and generalization), questionnaire survey.

**Findings and their discussion.** The results of the study showed that the meaning and value of life, such as material security, is very important for 21%, quite important for 51%, slightly important for 12%, almost not important for 6%, and not at all important for 9% of respondents.

Regarding the meaning and value of one's health in life, both physical and mental, the results showed that it is very important for 54%, quite important for 18%, slightly important for 15%, almost not important for 6% and not at all important for 6%.

Some respondents see the meaning and value in a life full of various pleasures, namely 39% of respondents believe that it is very important, for 30% it is quite important, for 9% it is a little important, for 12% it is almost not important and for 9% it is not at all important.

Professionalization is a very important aspect for the future generation. It is very important that the work pleases and benefits our society. The meaning and value of interesting future work is very important for 45%, 27% consider this aspect rather important, 12% consider it slightly important, 6% almost do not care, and 9% do not care at all.

Love is one of the most valuable lifelong orientations. Love is important for 34% of respondents, quite important for 37%, slightly important for 12%, almost unimportant for 12, and not at all important for 3%.

Independence in judgments and evaluations, is very important for 45%, satisfied is important for 30%, slightly important for 18%, almost not important for 3% and not at all important for 3% of respondents.

Freedom, as independence in actions, is very important for 27%, quite important for 36%, a little important for 15%, almost not important for 9% and not at all important for 12%.

Friends very often give our lives a great meaning and help to cope with our problems. Friendship is a very great value for many. According to the results of the study, having good and faithful friends is very important for 36%, quite important for 36%, a little important for 12%, almost not important for 9% and not at all important for 6% of respondents.



Beauty is very important for 15%, quite important for 30%, a little important for 30%, almost not important for 12 and not at all important for 12%.

Education is very much appreciated in our country, therefore cognition is both a value and a meaning of our existence. For our respondents, knowledge is very important for 30%, quite important for 24%, slightly important for 24%, almost unimportant 15% and for 6% not at all important.

The family is the most important pillar of every person. Happy family is very important for 39%, for 24% it is quite important, for 12% it is a little important, for 15% it is almost unimportant and for 9% it does not matter at all.

Creativity as the meaning and value of life is very important for 18%, quite important for 33%, slightly important for 18%, almost not important for 12%, absolutely unimportant for 18%.

Public recognition is very important for 18%, quite important for 30%, slightly important 27%, almost 12% and 12% are completely unimportant. An active life is very important for 18%, quite important for 30%, a little important for 24%, almost unimportant for 15% and completely unimportant for 12%.

Equality as the meaning and value of life is very important for 27%, satisfied is important for 21%, slightly important for 18%, almost not important for 21% and not at all important to 12% of respondents.

Self-confidence is very important for 39%, quite important for 33%, a little important for 12%, almost unimportant for 6% and not at all important for 9%.

**Conclusion.** For most modern teenagers, according to our research, very important meaning and values in life is: independence in judgment; health; a life full of pleasure; interesting future work; good and faithful friends; cognition; happy family life; equality; self-confidence. The highest value belongs to the criterion of health (physical and mental). Thus, we can conclude that the most important meaning and value of life of modern teenagers is to be healthy.

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2. Nozick, R. Researched Life: Philosophical Reflections / R. Nozick. – 2nd ed. – New York: Pocket Books, 1989. – 320 p.

## **FEATURES OF FORMATION OF KNOWLEDGE ABOUT FIRE SAFETY AT PUPILS WITH INTELLECTUAL INSUFFICIENCY**

**Christina Dylebova**

VSU named after P.M. Masherov, Vitebsk, Belarus

The culture of life safety is the development of a person and society, which is determined by the tasks of ensuring life safety in a complex system of personal and social values, as well as the level of safe behavior in everyday life and in cases of dangerous and emergency situations [1].

The problem of forming a culture of life safety in special pedagogy is considered multi-vector. The scientific literature investigates the formation of children with intellectual disability of social orientation, cultural and hygienic, social and communicative skills and behavioral skills in everyday life, in the process of socialization and social adaptation in the world (L.I. Aksenova, I.M. Bgazhnokova, V.V. Voronkova, O.P. Gavrilushkina, E.A. Ekzhanova, Yu.N. Kislyakova, O.I. Kukushkina, E.T. Loginova, E.V. Lokteva, N.D. Sokolova, E.A. Strebeleva, A.M. Shcherbakova et al.).

One of the aspects of the work on the formation of social representations among schoolchildren, including those with peculiarities of psychophysical development, is the training of their safe life: ways and means of preserving health, knowledge of traffic rules and the desire to fulfill them, fire, environmental, legal, spiritual and moral safety, skills of behavior and response in potentially dangerous, extreme situations, in the process of various kinds of communication and interaction in society (L. B. Baryaeva, N. Yu. Gomzyakova, N. V. Moskalenko, Yu. V. Chirkina, L. M. shipitsyna, N. N. Yakovleva, etc.).

Many authors suggest to apply various methods of formation of bases of safety of activity which include:

- game trainings in which life situations are played out;
- teaching children methods of protective behavior (cry, call for help);
- application of fiction that illustrates and tells about the most serious situations;
- application and video materials;
- various excursions, conversations, games on the layout, game situations-puzzles [2].

The aim is to determine the level of knowledge of students with intellectual disabilities about the rules of fire safety.

**Material and methods.** The experimental study was conducted from April 2019 to may 2019 in SEI "Auxiliary school № 26 of Vitebsk". The total number of persons involved in the study was 20 people diagnosed with F70 according to ICD -10. The study involved students of the lower grades of the first Department of the auxiliary school. The age range of the subjects-from 9 to 12 years, of which 7 girls and 13 boys. As methods of diagnostics the questionnaire developed by was used. E. V. Nenakhovoy, including 10 questions in accordance with the program content of the subject "Fundamentals of life safety".

**Findings and their discussion.** In the process of conducting the study, some students found it difficult to determine the answers, which took them time. The analysis of the responses of the subjects showed a predominance of average (55%) and low (35%) development of cognitive interest in the discipline "Fundamentals of life safety", a high level, unfortunately, is represented by a low percentage (10%).

To the question : " what rules do you need to follow to avoid a fire?" 15% of primary school students with intellectual disability believe that you can not

play matches, you can not burn fires in the woods, you can not play with fire. 20% of children answered that it is impossible to turn the stove without an adult, you can't light candles in the woods, "you can't leave it on the wire", 50% of students believe that it is impossible to play with fire, you need to behave carefully with matches, lighters, children are not to take, 10% of participants formulated answers of a General nature (for example, Nikita S.: "there is safety of life on the road, at home, in the woods, so you need to listen to your mother"), 5% of respondents said that the need to open the door and escape.

To the question: "What phone number is the fire service called?" only 50% of children with intellectual disability called the correct number.

To the question: "What do you have to say on the phone when you call 101 or 112?" 10% of the subjects answered that it is necessary to name a street, an apartment, a house, 10% - what you need to name the address, 25% of children said that I must say that caught fire, 30 % of surveyed said that urgently need fire, "my house fire", 25% of younger school students with intellectual disabilities consider what to say, where the lights and call your phone number.

When answering the question : " what is dangerous fire and smoke in a fire?" 55% of the subjects gave General answers, without revealing the meaning of the danger: the house may catch fire, people may die. 15% of primary school students with intellectual disability believe that you can burn yourself, burn your hands. 15% of children assumed that the Christmas tree, toys, apartment, neighbors could catch fire. Only 10% of the surveyed were able to say that because of the smoke you can not see anything and you can suffocate, do not have time to go out. Only 5% of students told what to do in case of fire: take a wet handkerchief, close their mouth and do not hide, and crawl to the exit.

The question, "how to extinguish a small fire?" caused the least difficulties for the participants of the experimental study. 40% of children answered that it is possible to extinguish a fire with water, 30% of subjects also called the earth, sand in a bucket, 20% of pupils with intellectual insufficiency said that it is possible to extinguish a fire extinguisher, 5% of respondents could give more detailed answers (for example, to extinguish with water, but only not electric appliances, they cannot be, and that will shock),

According to the results of the survey we identified three levels of knowledge of fire safety rules in younger students with intellectual disabilities:

- Low level: scattered knowledge about fire safety, knowledge on safe behavior in case of fires is not formed – 60% of the surveyed.
- Average level: knowledge about the main factors of fire safety and ways to overcome them are in the stage of formation – 35% of students.
- Sufficient (high) level: knowledge and skills of safe behavior in unusual, dangerous, extreme situations, formed skills of safe behavior with fire, are able to adequately behave in fire situations at home, at school, in nature, interaction with firefighters, are able to handle electrical appliances, objects of increased fire danger – 5% of subjects.

**Conclusion.** Thus, the knowledge of children with intellectual disability about the rules of fire safety in most cases are undifferentiated, inaccurate, which makes it difficult for them to form appropriate skills. Therefore, there is a need to organize special work on the formation of a culture of life safety (including fire safety) in students of this category.

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## **USE OF GROUP FORMS OF WORK UNDER THE TRAINING OF FUTURE PROFESSIONALS TO IMPLEMENT INCLUSIVE EDUCATION**

**Julia Gamzyuk, Anastasya Yaskina**

VSU named after P.M. Masherov, Vitebsk, Belarus

The development of inclusive processes in education and the formation of readiness of all subjects of the educational process for implementation is defined as a prospect for the development of the education system of the Republic of Belarus until 2030.

The development of inclusive education involves: amendments to the normative legal acts, regulating the activities of the education system of the Republic; the work to create an adaptive educational environment in educational institutions; implementation of research activities, pilot projects aimed at the development of inclusive processes in education; conducting active information and educational work on the formation of an inclusive culture, tolerant attitude towards children with special educational needs.

Formation of readiness of future teachers to work in conditions of inclusive education is the key to successful socialization and social development of such category of children. Development of professional readiness should be provided already at the stage of preparation of students and, then, to find further improvement directly in the process of professional activity.

The purpose of our research: to determine the effectiveness of group forms of work in the professional training of students to implement the ideas of inclusive education.

**Material and methods.** The basis of the study was VSU named after P.M. Masherov faculty of social pedagogy and psychology. The sample consisted of 17 students of the specialty 1-03 04-01 «Social pedagogy» 2 courses of full-time education and 6 teachers of the department of social and pedagogical work. Is the total number of respondents 23 peoples. The following methods were used to achieve the purpose of the study: terminological method, study and

generalization of psychological and pedagogical experience, questionnaire survey, methods of mathematical statistics.

**Findings and their discussion.** The work of teachers in inclusive education requires the formation of inclusive readiness, professional and social and personal competences. It is possible to increase the level of professional competence of future social teachers in the field of inclusion through the use of various forms of education in the educational process [2, c.191]. Group form of educational activity is the most effective form of educational cooperation, which promotes productive interaction of students, development of their abilities to analyze and evaluate the position of other participants in the educational process, the formation of their own point of view and the ability to defend it. Group activities contribute to the development of skills and interpersonal interaction, creativity, aims to achieve a common goal [1].

We decided to test the potential of group work in the preparation of students of the 2nd courses of full-time education in the specialty 1-03 04-01 «Social pedagogy».

In the course of preliminary preparation for the group form of organization of the educational process of the «Round table discussion» on the theme: «Ensuring social conditions for the protection of the life and development of different categories of children» the students studied the terminology on this issue, the regulatory framework is analyzed, functions of the Ministry of labour and social protection, centers of correctional and developmental training and rehabilitation, district departments of education, specialized secondary boarding schools for children with features of psychophysical development, socio-pedagogical and psychological services of secondary schools, institutions of vocational education.

In the process of this form it was proposed to study and analyze the activities of various departments and subjects of educational relations for the development of inclusive education; to express their attitude to the social significance of inclusive education; to assess the role of teachers in ensuring the social development of children with disabilities; to make judgments about the prospects for the development of inclusive education. Solved pedagogical problem, discussed options for the organization of social and pedagogical work with this category and discussed questions the issues of forming a positive image of and tolerance towards children with special needs and their parent family in the training of future specialist in the social sphere.

As measurements of the questionnaire were developed criteria for assessing the effectiveness, which are correlated with percentages and rank indicators from 1 to 5 points. The survey conducted at the end of the event showed the following results. Criterion «Compliance of the lesson content with expectations» 64% rated 5 points, 29% – 4 points and 7% 3 points. Criterion «Novelty of the received information» 29,4% – 5 points; 70,6% in 4 points. By the criterion «Relevance of the acquired knowledge» were obtained the following indicators: 88,2% – rated on a 5 point scale; and 11,8% for 4 points. Criteria «The importance of the topics discussed in the lesson for future



professional activities» and «The accessible presentation of material» the highest number of points from respondents received: 94,1 on a 5– point scale and 5,9% on a 4 – point scale. Criterion «The practical value of the material applicability in the future professional activity» – 83,5% on a 5– point scale и 16,5% on a 4– point scale.

However, the results of the evaluation of the event by teachers and students turned out to be polar. By the criterion «Effectiveness of implementation of the event form» students 88.2%, teachers 50% – 5 points; students 5.9%, teachers 50% – 4 points. Criterion «Rating of the event as a whole»: students 76% and teachers 49% – on 5 points; students 24%, teachers 33% – on 4 points; and 18% teachers on 3 points.

**Conclusion.** Thus, we found that the most of student respondents highly appreciated the effectiveness of the group form of work, the practical orientation of the event and the value for future professional activity. However, the teachers noted that the effectiveness of this form is highest with more thorough additional training, study of the material and development of the concept of the proposed event in the preparation of future specialists.

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## **FILLING THE INFORMATION AND COMMUNICATION SUBJECT ENVIRONMENT OF THE DISCIPLINE “HISTORY OF MUSIC EDUCATION”**

**Ruslana Gimro**

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Modern education is impossible to imagine without the use of information and communication technologies-based e-textbooks, learning systems, control systems knowledge, e-books and reference books, educational computer programs, electronic and information resources with audio and video, etc. All aforesaid will be able to integrate into the concept of “information and communication environment”. According to the opinion of I. V. Robert, this concept is significantly expanded by the concretization of the position “environment” – “subject environment”. The priority area defines the set of conditions which contribute to the occurrence and development processes of educational information interaction between the learner(s), teacher and information and communication technologies, as well as formation of cognitive

activity of the student under the condition of filling the environment components with a subject content.

For the qualitative research of any discipline, it is necessary to develop and use the appropriate information and communication subject environment, which enable to increase the motivation of educational activities, improve the management of the educational process, and more objectively rate the quality of educational results.

Higher education at the pedagogical department of VSU named after P.M. Masherov major with "Musical art, rhythm and choreography" is graduated not only by Belarusian students, but also citizens of China. They study various theoretical and practical disciplines, including the discipline "History of music education". Curricula for students of the Republic of Belarus and Chinese students are different according to the number of hours and forms of classes. This requires the use of appropriate educational and methodological support in the context of information and communication subject environment.

The purpose of this article is to develop an algorithm for the formation of cognitive activity of students – citizens of China in the framework of filling the components of the environment with subject content on the subject "History of music education".

**Material and methods.** The methodological basis of the research is the work of domestic and foreign researchers on the history of music education (E.B. Abdullin, E.V. Nikolaev, E.S. Polyakov), information and communication technologies (O.A. Minich, S.V. Panyukova, I.V. Robert). The material of the study is the academic discipline "History of music education", studied by Chinese students 34 group "Musical art, rhythm and choreography". Analysis, generalization, observation, practical methods are used as methods.

**Findings and their discussion.** The process of teaching Chinese students "History of music education" is carried out in light of the peculiarities of their mentality, creativity and speech capabilities. The study of the above discipline is carried out in the third year and supposes knowledge of the Russian language that to understand and master the basic positions of the discipline.

The absence of lectures and practical classes, as well as controlled self-work is due to some extent the speech capabilities of Chinese students. In practical classes, students are proposed the handout materials with basic concepts and their definitions; graphic, subject and artistic and visual visualization in the form of multimedia presentations, audio and video materials on the topics of classes.

Online translators (Promt, Google, Yandex) and software for visual support (PowerPoint, Impress, Kingsoft Presentation) are great help in the educational process. As a part of the controlled self-work, students are encouraged to create a database of videos on the topics of the curriculum. As an example, the teacher offers to view and analyze fragments of videos found on Russian-language sites and processed in accordance with the theme of the practical lesson (Table. 1).

To do this, it is advisable to use the program Movavi Video Suite, video Studio, AVS Video Editor (cutting, processing, editing).

Table 1-Educational video resources (discipline "History of music education»)

Topic	Video / Access mode	Timing	Show time
Music education in the countries of the Ancient East: Egypt, China, India	"Music of Ancient India and China (MUSIC ERUDITION)» <a href="https://www.youtube.com/watch?v=iMu8oaT_Km0">https://www.youtube.com/watch?v=iMu8oaT_Km0</a>	07.39	01.07-03.20
Music education in the ancient world (VIII century BC-V century ad): Rome, Greece	Ancient Rome in 20 minutes <a href="https://www.youtube.com/watch?v=LqB2pZXEfO4">https://www.youtube.com/watch?v=LqB2pZXEfO4</a>	20.58	02.19-06.13
	History Of Ancient Greece <a href="https://www.youtube.com/watch?v=IApONW60aqo">https://www.youtube.com/watch?v=IApONW60aqo</a>	04.44.42	1.21-3.56
Musical education in foreign countries of the middle ages VI-XV	"MUSIC OF MEDIEVAL EUROPE. NOTATION. TOOLING."("MUSIC ERUDITION") <a href="https://www.youtube.com/watch?v=jellKLUP_nM">https://www.youtube.com/watch?v=jellKLUP_nM</a>	18.05	1.29-5.14

Chinese students are offered to study the discipline “History of music education” according to the following algorithm:

- execution of the practical lesson on the topic of the curriculum with a demonstration of photo, audio and video materials;
- discussion of the material of the practical lesson ;
- introduction of the topic of the next practical lesson;
- formulation of the task for the next practical lesson.

The educational task is directed at finding a video in the Internet portal (in the native language of the student). The main condition is the duration of the video is not more than 1.5 minutes, its abstract in Russian (author, title, story features).

**Conclusion.** Cognitive activity of Chinese students in the study of the discipline "History of music education" is formed in the framework of filling the components of the information and educational environment with subject content. The application of information and communication technologies in the educational process is increased the interaction between students and teachers. The formation of an effective model of teaching Chinese students involves the creation of a textbook using the appropriate Internet resources.

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2. Гимро, Р.В Сравнительный анализ учебных программ по дисциплине «История музыкального образования» для студентов РБ и КНР / Р.В. Гимро // XI Машеровские чтения: материалы междунар. науч.-практ. конф. студентов, аспирантов и молодых учёных, Витебск, 18 окт. 2019 г. / Вит. гос. ун-т; редкол.: И.М. Прищепа (гл. ред.) [и др.]. – Витебск: ВГУ имени П.М. Машерова, 2017. – С. 422–424.

## MANIFESTATIONS OF AGGRESSIVE BEHAVIOR AT TEENAGERS IN 7 GRADE

**Kristina Gvozdyova**

VSU named after P.M. Masherov, Vitebsk, Belarus

The problem of aggressive behavior of adolescents causes research interest, since in the modern world the number of aggressive manifestations of this category of persons is growing and this causes concern for parents, educators and psychologists.

Now often in a teenage environment one can observe pugnacity, bitterness, unreasonable rudeness when communicating with each other, at school, on the street and in public places.

Aggressive manifestations in adolescence are due to two the most striking factors - these are neoplasms of age and the influence of society.

The teenager is influenced by his family, school and peers, as well as the activities of various media, which amid a painful teenage crisis leave a heavy mark on the psychological health of the teenager, leading to aggressive behavior [1].

The purpose of our study is to study the manifestations of aggressive behavior in adolescents.

**Material and methods.** The study was conducted on the basis of the State Educational Institution “Secondary School No. 3 of Krupki”. Characteristics of the sample: the total number of students in grade 7 “B” is 24 teenagers, including 15 girls and 9 boys. The age of the students: 13 to 14 years. To determine the level of aggressiveness of adolescents, the methodology “Questionnaire of aggressiveness of A. Bass and A. Darki” was applied.

**Findings and their discussion.** Aggression is a set of certain actions that cause harm to another person and aggressiveness is a personality trait expressed in readiness for aggressive actions against another person. According to L. Berkovits, "aggressiveness is a predisposition to aggressive behavior" [2].

This technique examines the appropriate scales: physical aggression, indirect aggression, irritation, negativity, resentment, suspicion, verbal aggression, guilt, as well as an index of aggressiveness and hostility.

The aggressiveness index and hostility index are calculated the following way:

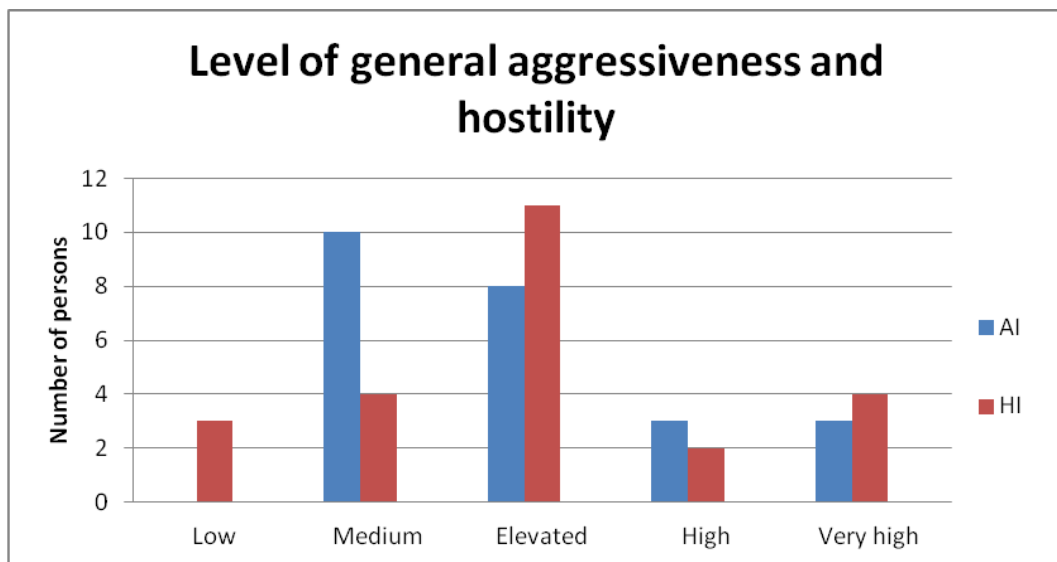
$AI = \text{physical} + \text{indirect} + \text{verbal aggression} / 3;$

$HI = \text{resentment} + \text{suspicion} / 2.$

Analyzing the data during the study, it turned out that of all adolescents participating in the study, 10 out of 24, that is 41.6%, showed an average aggressiveness index (28 – 49 points), 8 children, that is 33.3% – an increased level (50 – 71 points), 3 people, that is 12.5% have a high level (72 – 82 points) and 3 teenagers, that is 12.5% – very high level (83 points or more).

Hostility index: 3 teenagers, that is 12.5% – low level of hostility (0 – 14 points), 4 people, that is 16.6% – average level (15 – 36 points), 11 people, that is 45.8% – an increased level (37 – 58 points), 2 people, that is 8.3% – a high level (59 – 69 points) and 4 teenagers – that is 16.6% have a very high level hostility (70 – and more points). Interpretation of the results according to this technique according to the author Hvan A.A., Zaitsev Yu.A., Kuznetsova Yu.A.

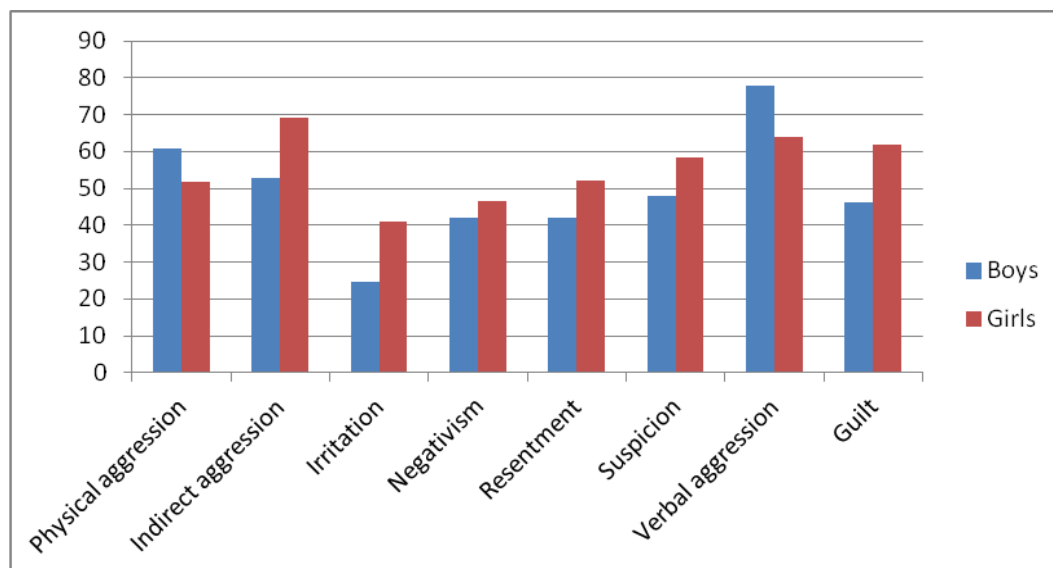
These results may be due to the fact that adolescents are not ready to accept criticism and other people's opinions. Students have unstable self-esteem, as a result of which they often show a reaction that develops a negative attitude towards people and events. The period of the teenage crisis is characterized by a drop in academic performance, a decrease in working capacity, disharmony in the internal structure of the personality, and the maximum separation of the "I am" of the teenager and the world. The prevailing indicators (average level of aggressiveness and an increased level of hostility) are characteristic of adolescents who, under normal conditions, do not show aggressiveness, but in especially significant emotional situations can show various types of aggression (Pic. 1).



Picture 1 – The level of general aggressiveness and hostility.

The study also showed that the most common among respondents are: verbal aggression, which is characteristic of 41.6% (10 of 24 adolescents), indirect aggression 29.1% (7 of 24 adolescents), guilt 26.2% (6 of 24 adolescents), physical aggression 16.4%, There are 4 out of 24 teenagers. (Pic. 2).





Picture 2 - Scales of aggressive behavior of adolescents.

**Conclusion.** Thus, in our empirical study, it was revealed that the school of verbal aggression in boys dominates in the first place. It means that they are used to expressing their emotions and feelings through such a form of behavior as screaming, cursing, threatening. Indirect aggression prevails in girls. This scale is understood as aggression, which is directed in a roundabout way to another person (gossip, malicious jokes) and is manifested by disordered violent emotional reactions. The scale of guilty feelings prevailing in girls indicates that they feel remorse for wrongdoing. It can also be noted that aggression in adolescence is characterized by situationality. In this case, there are gender differences in the manifestation of aggressive reactions.

Work on prevention and correction should be carried out by a qualified specialist. But, with all the qualified help of teachers, psychologists, parents are the main people able to raise a child correctly and not turn him into an aggressive person. Therefore, work to prevent the development of aggressive behavior should be carried out both among schoolchildren and among parents. Collaboration will be the most effective.

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## THE COMPONENTS ANALYSIS OF THE OF INDEPENDENT WORK AS A CONDITION OF SUCCESSFUL TEACHING A FOREIGN LANGUAGE

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The emergence of modern technologies for teaching foreign languages is due to the evolutionary process caused by the change of priorities from the assimilation of made up knowledge in the classroom to the independent active cognitive activity of every student, taking into account their characteristics and capabilities.

The aim of our research is to carry out methodical analysis of independent work components in the process of learning a foreign language and investigate requirements for successful work.

**Material and methods.** The research was held on the basis of Vitebsk gymnasiums № 1 and 2 (52 students). The research methods: literature review on the subject and its critical analysis (works of E.I. Passov, N.D. Galskova, N.I. Gez, E.I. Solovova, T. P. Leontyeva, et al.), the observation of the teaching process and scientific analysis of English training.

**Findings and their discussion.** Effective organization of students' independent educational and cognitive activity presupposes taking into account its social, metacognitive and cognitive components [1, p. 145–147].

The social component is focused on the development of students' self-educational capacity by means of their intensive involvement in group or pair work in the classroom or outside the classroom in order to master a foreign language. Students' active interaction allows to find out various educational and cognitive strategies, to compare the degree of impact in joint communicative activities, to correct or abandon the usual ways of solving verbal and cognitive tasks. Interaction helps students to understand their strong and weak points, transfer their experience to new situations and borrow the most successful strategies. These strategies represent ways of cross-fertilization of students' individual system of knowledge, their skills and habits, which allow them to compare, generalize and transform, if necessary, the accumulated experience. They include methods of cooperation in pairs and groups, mutual support and assistance in the process of solving communicative problems, etc.

The metacognitive component of independent educational and cognitive activity is focused on the development of students' skills of planning, self-management, critical reflection and self-esteem. This is the most essential component for the development of students' autonomy, since the mentioned above skills require both the student's and the teacher's focused attention. The teacher is to organize independent work so that students have the opportunity to apply various methods of planning, self-management and self-esteem, evaluate their effectiveness for themselves, and accumulate sufficient experience for

further use. The teacher should show the effectiveness and importance of a particular method to achieve the goals, only in this case students will be able to transfer new skills to other activities. It is feasible to demonstrate memos with step-by-step instructions for educational tasks fulfillment to students, and then ask them to evaluate the degree of effectiveness of every “step”. Paying attention to the metacognitive component of independent work the teacher should help students to realize and evaluate the quality of their mental activity and ways of its effective use: how to meet educational goals faster, more effectively and with less effort. To adjust and control the achievement of educational and cognitive goals students can use the following met cognitive strategies: ways of setting goals, activity monitoring, self-control, self-correction, and reflection.

The cognitive component of independent work is focused on the development of students' foreign verbal skills and habits, the formation of their linguistic and non-linguistic knowledge. Within this component students must develop the basic mental operations that allow them to accumulate language and speech experience: comparison, abstraction, generalization, concretization, analysis, synthesis. The teacher is to inform students about such cognitive strategies as ways of organizing and developing verbal memory, structuring and systematizing linguistic knowledge, interpreting and evaluating the communicative situation, choosing means of linguistic construction of a foreign language utterance, and models of culture-like non-verbal behavior.

The gradual expansion of students' autonomy will lead to the development of general educational and special skills. General educational skills include the ability to organize and allocate one's time, to single out primary and secondary things, to implement control and self-control of independent educational and cognitive activities. Special skills relate to aspects of language and types of speech activity, for example: the ability to make a plan for oral utterance, to compare lexical and grammatical phenomena in native and foreign languages, to edit a written essay, etc.

**Conclusion.** A methodical analysis of independent work components in the process of learning a foreign language allows to draw the following conclusion: for the continuous effective development of students' independent activity it is important to follow such requirements as 1) the awareness of the activity purpose; 2) the knowledge of the completing task procedure; 3) the ability to see backbones in the task material, which facilitate overcoming difficulties in the course of independent work; 4) the development of skills and habits to use appropriate training aids (educational didactic material, audio or video recordings, reference books, etc.) for implementing tasks; 5) skills and habits development of self-control and self-correction.

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## THE CONNECTION BETWEEN EATING BEHAVIOUR AND THE HARDINESS AND ANXIETY LEVELS

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The concept “hardiness” was formulated by American psychologist Salvatore Maddi. It means the willingness of human “to act contrary” – contrary to ontological anxiety, the anxiety of sense loss and contrary to the feeling of abandonment. It is Hardiness that permits a person to endure unrecoverable anxiety, which can be one of the reason for eating disorders [1, 2].

The purpose of research is analyze eating behaviour and the levels of hardiness and anxiety and find their connection.

**Material and methods.** The Dutch Eating Behaviour Questionnaire, Test of Hardiness by S. Maddi and Manifest Anxiety Scale by J. Taylor (modified by T. A. Nemchin) were used as the methods of the research. The participants of the research were 19 students of VSU named after P. M. Masherov aged 18–19 years (among them 9 boys and 10 girls).

**Findings and their discussion.** The research has established:

1. According to the hardiness level it was found out that 37% of respondents have a low level of hardiness, 47% – a middle level of hardiness and 16% – a high level of hardiness.

2. According to the level of anxiety it was found out that 5% of respondents have a low level of anxiety, 26% – a middle level of anxiety (with a tendency to low), 21% – a middle level of anxiety (with the tendency to high), 37% – a high-level anxiety and 11% – very high-level of anxiety.

3. With the help of The Dutch Eating Behaviour Questionnaire it was found out that 100% of respondents have eating disorders: 42% have restrained eating behaviour, 53% – emotional eating behaviour and 84% – external eating behavior.

The research has also proved that 37% of respondents have two types of eating disorders. 86% of them have emotional and external eating behaviour and 14% – restrained and external eating behaviour. 21% of respondents have three types of eating disorders. 48% have only one type of eating disorder.

According to the analysis of the hardiness and anxiety levels and their connection it was identified:

1. 100% of respondents with a high level of hardiness have low rates on the anxiety scale.

2. 67% of respondents with a middle level of hardiness have a middle level of anxiety and 33% – a high level of anxiety.

3. 86% of respondents with a low level of hardiness have a high and very high level of anxiety.

The research shows that the higher the respondent’s indicators on hardiness scale are, the lower the indicators on the anxiety scale are.

According to the analysis of the hardiness level and eating behaviour and their connection it was established:

1. Respondents with a high level of hardiness have one type of eating disorder (67%) or two types (33%). Responders with a high level of hardiness don't have three types of eating disorders.

2. Respondents with a middle level of hardiness have different types of eating disorders. 45% of them have one type of eating disorder, 45% – two types of eating disorders and 10% – three types of eating disorders.

3. Among respondents with a low level of hardiness, 29% have one type of eating disorder, 29% – two types of eating disorders and 42% – three types of eating disorders.

It should be noted that the lower level of hardiness is, the more combined respondent's eating disorders become.

The analysis of the relationship between the anxiety level and eating behaviour revealed:

1. Respondents with a very high and high level of anxiety have an eating disorder: 12% have one type of eating disorder, 44% – two types of eating disorders and 44% – three types of eating disorders.

2. Respondents with a middle level of anxiety have one (67%) or two types (43%) of eating disorders. Three types of eating disorders weren't identified among the respondents with a middle level of anxiety.

3. Respondents with a low level of anxiety have only one type of eating disorder. It is external eating behaviour. At the same time, the deviation from the average statistical norm was small - 0.4 and the indicators on the hardiness scale were high.

Thus, the higher the anxiety level of the respondent is, the more eating disorders one has.

**Conclusion.** The research has established the hardiness and anxiety levels and eating disorders of the students of VSU named after P. M. Masherov. According to the results of the research it was identified that the external eating behaviour is the most common eating disorder (84%). Besides a responder having a high-level hardiness has a lower level of anxiety and one's eating disorders are less marked. The lower the indicators on the hardiness scale are, the higher the anxiety level is, and eating disorders become more combined. Finally, the higher the anxiety level is detected, the more eating disorders the respondent has.

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## FORMATION OF READINESS OF FUTURE TEACHERS FOR VOLUNTEER ACTIVITY

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Currently, the most relevant are the research possibilities of integration of vocational and extracurricular activities of students, promoting the development of professional competence as a system of scientific and theoretical knowledge, operational and technological skills and the motivational – value characteristics of the specialist necessary for future professional activities [1].

In pedagogy and psychology, in domestic and world practice of pedagogical and social education, the advantages of activity and contextual approaches (involvement of future specialists in practical activities as close as possible to the mastered profession) are revealed by the potential of volunteer (volunteer) activity of students. In this regard, scientists have revealed the essence of volunteering as a voluntary activity in accordance with the need of conscience (P. D. Pavlenok, E. I. Kholostova); pedagogical efficiency of volunteer (volunteer) activity (G. p. Bodrenkova, L. K. Ivanova, V. V. Mitrofanenko, N. S. Morova, N. V. Padero, A. A. Safina); various aspects of volunteering (V. G. Bocharova, I. E. Gorodetskaya, N. V. Dementieva, G. V. Ermolenko, P. M. Kulichenko, N. Yu. Slabzhanin, A.V. Khukhlin, K. V. Eirikh, etc.) [2], [3].

The aim is to determine the quality of formation of components of readiness of students of pedagogical specialties to volunteering.

**Material and methods.** Purposeful research of features of formation of information and cognitive component of readiness for volunteer activity at future teachers was carried out from April to may, 2019 on the basis of faculty of social pedagogics and psychology, pedagogical and philological faculties of SEI "Vitebsk state University named after P. M. Masherov", Institute of inclusive education of BSPU named after M. Tank. To organize the study, a group of full - time and part-time students of 2-4 courses were selected. The total number of persons involved in the study was 130 students. Age of subjects: from 18 to 25 years. 65 students of the specialty of defectological profile made the first experimental group (EG1), the other students of pedagogical specialties made the second experimental group (EG2). The main method of study was a questionnaire.

**Findings and their discussion.** 47.7% of EG1 respondents believe that volunteering is voluntary participation in the organization and implementation of various types of assistance without payment and reward to the needy, 34% of EG2 respondents share this opinion; 30.8% of EG1 respondents and 29% of EG2 respondents define the meaning of the word "volunteering" as voluntary assistance, 17% of EG1 respondents and 11% of EG2 respondents-as assistance, 20% of EG2 respondents explain volunteering as selfless assistance; 3% of EG1 respondents believe that volunteering is helping people with developmental

disabilities, while 1.5% of EG2 respondents understand volunteering as gratuitous assistance to children and the elderly. Also, 1.5% of EG1 respondents define "volunteering" as an opportunity for professional development. These indicators indicate that the majority of respondents have not sufficiently formed the semantic component of the word "volunteering", this concept is not sufficiently differentiated, since volunteering implies a broader definition than "help", "gratuitous assistance" "assistance to a certain category of people". At the same time, comparing the data of EG1 and EG2 questionnaires, we can say that the respondents' understanding of the meaning of the word "volunteering" is approximately at the same level.

95.3% of EG1 respondents and 86.2% of EG2 students answered that a person of any age can theoretically be a volunteer; 13.8% of EG2 respondents and 3.1% of EG1 respondents believe that a person who has reached the age of majority, not older than 50 years, can be a volunteer; 1.6% of EG1 respondents found it difficult to answer. Such indicators indicate that the majority of respondents have formed an idea about the presence of age limits (restrictions) of participation in volunteer activities, and some respondents need an explanation of this issue.

87.7% of subjects and EG1, and EG2 sure that the basic rule of the volunteer – not to seek their own benefit, but 12.3% of the survey participants insisted that often volunteer activity is the way to paid work, in volunteer activity there is always an opportunity to prove themselves and to prove the best side, try yourself in different

44.6 % of EG1 students and 40% of EG2 respondents believe that "volunteer activity" and "social activity" are synonymous concepts; 32.3 % of EG1 subjects and 41.5% of future EG2 teachers insist on the opposite; 23.1 % of EG1 respondents and 18.5 % of EG2 students find it difficult to answer. In reality, volunteering can be considered a social activity, but social activity is not always a volunteer activity. Thus, in the majority both future defectologists, and students of pedagogical specialties has no accurate differentiation between concept "volunteer activity" and "public activity".

On the question "define the concept of "tolerance", we received the following answers: 37% of EG1 students and 11% of EG2 respondents believe that this is the acceptance of any dissent, acceptance of someone / something with any characteristics, excluding contempt and condemnation; 53% of EG1 respondents and 69 % of EG2 respondents define "tolerance" as tolerance; 5% of EG1 participants and 2% of EG2 respondents do not know the definition of this concept; 5% of EG1 respondents and 18% of EG2 students understand tolerance as other concepts (education, sympathy and regret, liberalism, hospitality, tolerance, understanding).

It should be noted that the majority (92.3%) of the respondents of both groups consider tolerance to be one of the most important qualities of the volunteer and only 7.7% of the respondents EG1 and EG2 indicate that this quality of the volunteer can be dispensed with.

The results of the study showed that 55.4% of EG1 students and 52.3% of EG2 respondents would like to try themselves as a volunteer in the field in which they receive a specialty; 36.9% of respondents of both groups also have such a desire, but do not have time for volunteer activities, while 7.7% of EG1 respondents and 10.8% of EG2 students believe that they have enough knowledge acquired at the University and volunteering can not improve their practical skills. These indicators emphasize the desire of the majority of future professionals to gain experience in the specialty in the framework of volunteer activities.

To the question "Is there a person or group of people with whom you would like to work as a volunteer?" 31.5% of EG1 participants and 16.7% of EG2 answered - "children with psychophysical development", 18.9% of EG1 respondents and 25.4% of EG2 respondents – "adolescents", 15% of EG1 respondents and 8.8% of EG2 respondents chose the option "persons with disabilities", 12.6% of EG1 students and 16.7% of EG2 respondents are interested in working with adults, 11.8% of EG1 subjects and 8.8% of EG2 students tend to help older people, only 8.6% of EG1 respondents and 16.6% of EG2 respondents do not have certain preferences, and 1.6% of EG1 participants and 7% of future EG2 teachers chose the option "other".

**Conclusion.** As the study showed, students of defectological specialties are more prepared to work with people with psychophysical development than students of other pedagogical specialties. However, both need to expand their knowledge and skills in the field of practice-oriented volunteer activities, i.e. in the formation of information and cognitive component of this type of activity. Therefore, the data obtained in the course of the study indicate the need to organize volunteer activities and prepare students of pedagogical specialties for it in order to increase their professional competence, including within the framework of educational inclusion.

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## ROLE OF VOLUNTEER ACTIVITIES IN TRAINING OF SOCIAL SPECIALISTS

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Today, volunteering is one of the main manifestations of human social activity. The number of volunteers participating in various events increases every year. Only one public association «Belarusian Red Cross Society» integrates 22 thousand people, the number of volunteers increases annually. However, in the context of the training of specialists in the socio-cultural sphere, this aspect is one of the key ones.

The purpose of research: to study the potential of volunteer activity in patriotic education.

**Material and methods.** The base of the study was UO «VSU named after P.M. Mascherov». The total number of respondents was 36 students (18–22 years old). In order to realize the aim of the study, the following methods were used: questionnaires, methods of mathematical statistics, conducting a lesson on military-patriotic topics in the State University «Secondary School No. 26 of Vitebsk», a synthesis of psycho-pedagogical experience.

**Findings and their discussion.** The dictionary of S.I.Ozhegova treats the concept of «volunteering» as follows: voluntary performance of duties for the provision of free social assistance, services, voluntary patronage of individuals, sick and elderly, as well as persons and social groups of the population in difficult life situations [1, p. 94].

Volunteering, according to L.E.Sikorskaya, is nothing more than a way to preserve and strengthen human values, such as kindness, free assistance to anyone regardless of their position in society, cultural and ethnic characteristics, religion, age, sex [2, p. 17].

Volunteers are volunteers, people who spend their free time free of charge for the benefit of society and people around them.

The first origins of volunteering can be found in Christianity, as it is in religious teachings that the main principles are described... «bliss to give, unwilling to accept!» [3, p. 62].

Until the 19th century, volunteers were not united by a certain organization and it was not until 1863 that the public association of the Red Cross was founded.

In modern society, volunteering is the basis for personal development and social relations. By decision of the United Nations General Assembly, 2001 was declared the year of volunteering.

At the moment volunteers are involved in many spheres of life of society:

- help to elderly people and physically disabled people;
- help in the organization regional, regional, governmental and international activities;

- labor help;
- leisure activity and others.

The principles of volunteer activity have also been expanded:

- principle of voluntariness and conscientiousness;
- principle of gratuitousness (disinterestedness);
- principle of the social importance;
- principle of respect of identity and inner world of each person and its acceptance as unique personality;
- the principle of association of the people who are carrying out a mission of good and service to others;
- the principle of granting equal opportunities for spiritual, physical and intellectual development to all people, irrespective of their floor, a physical state, religion and a financial position;
- the principle of education in young people of leadership skills and moral values;
- principle of increase in civil activity;
- principle of legality [3].

Our research was aimed at identifying students' attitudes towards the social phenomenon of «volunteering». The results showed that 66% respondents had experience of such activities, of which 47.5% wished to continue in the context of education. Specifying what emotions respondents experienced during the activity it turned out that 60% experienced positive emotions when they were involved in various events as a volunteer. 40% were unable to give a description of their condition. Then the students were asked: what qualities should the volunteer possess? The most frequent responses were benevolence, positivity, activism, responsibility and communicativity. In volunteer activity, most respondents attracted new dating, help to people, new life experience and communication.

From the interviewed sample, an initiative team was created to conduct three patriotic lessons in the State University «Secondary School No. 26 of Vitebsk». The first lesson was dedicated to the theme «Children of War». In this class, students conveyed to every student the grief of children who had survived the war, lost their family and had to have children defend the Motherland.

A lesson was held for high school students on «War is not a female face». Teenagers were told about the plight of women who helped soldiers do hard physical work, were nurses and saved hundreds of lives.

The last lesson was devoted to the topic «Little Motherland» In this lesson, students were asked to guess mysteries, to watch a documentary about Vitebsk.

**Conclusion.** Thus, during the survey, the interest in volunteer activity, the desire to participate in events as a volunteer were revealed, as well as the main qualities that the volunteer should possess and the motivations that attract students to volunteer were highlighted.



Students of the Faculty of Social Pedagogy and Psychology, holding classes at the school, were able not only to show their pedagogical abilities, but also to see the potential of volunteer activity in patriotic education.

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## **THE USE OF INTERNET RESOURCES FOR TEACHING AND LEARNING ENGLISH**

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The issue of using Internet resources has been raised in our times more than once. Most people in the world today use the Internet in their daily lives. Social networking has become common means of communication. And learners today express much preference in using the Internet as quite supportive and helpful resource. Internet provides different alternatives: you can use multiple resources for various purposes. In English classes, you can solve a number of problems: to develop listening and reading skills, use teaching and learning materials from the global network; improve writing skills; replenish vocabulary; form a sustainable motivation to learn English, etc. All this provides a new way of learners' interaction with the language, draws their attention and fosters positive attitude towards the target language.

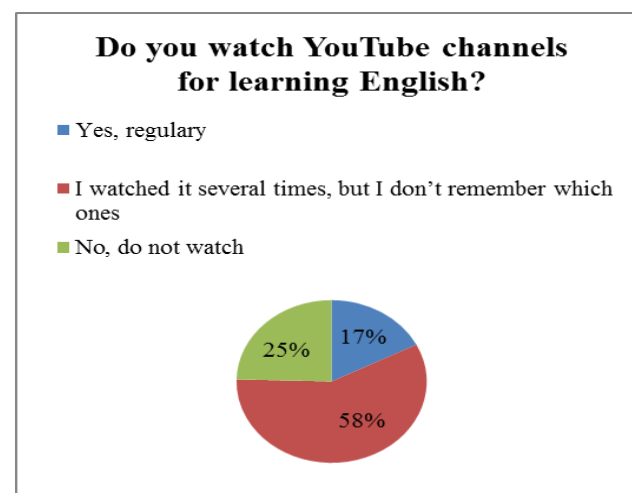
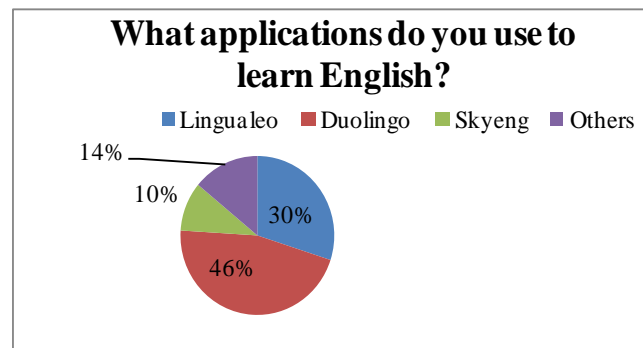
The aim of our research is to find out benefits and barriers of using Internet resources in teaching and learning English.

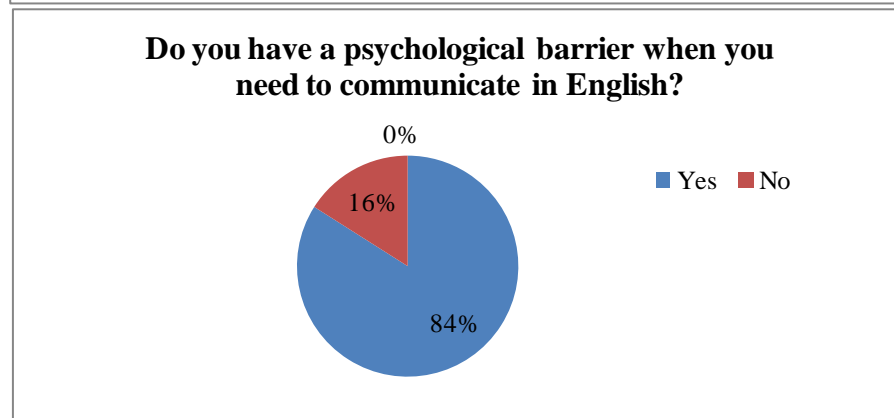
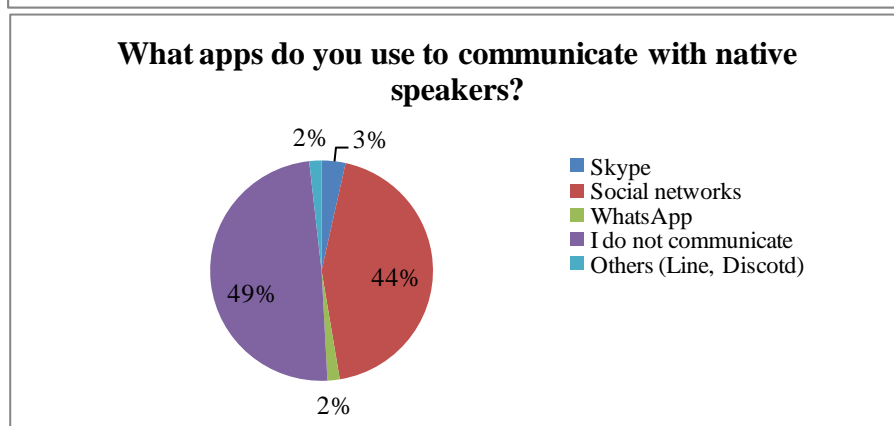
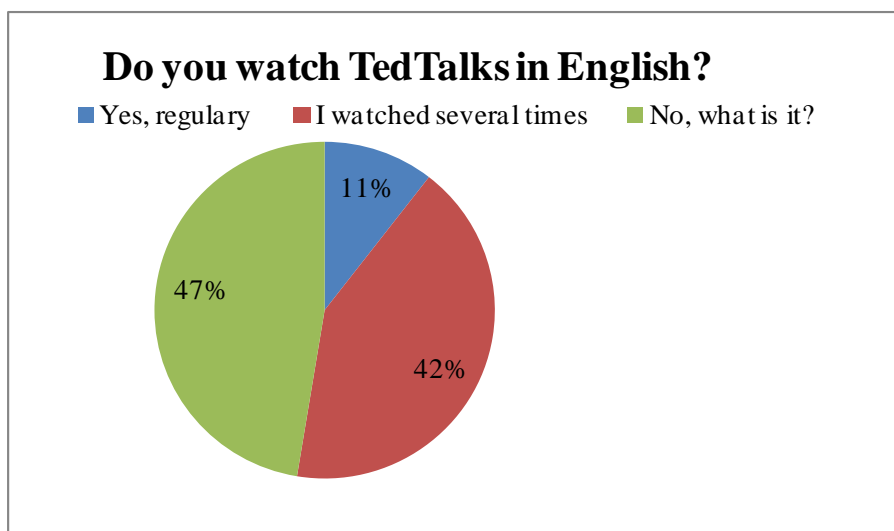
**Material and methods.** While working on the research we analyzed such Internet resources as Lingualeo, Duolingo, Skyeng, TedTalks, etc. and studied research works written by prominent foreign language teaching methodologists. Such research methods as theoretical analysis of scientific literature, the descriptive and empirical methods (observation, questionnaire) were used while conducting the investigation.

**Findings and their discussion.** We conducted a study among 4th and 5th year students of the Faculty of Philology to identify which Internet resources they use in learning English. They were asked 5 questions.

First of all, we were tasked to identify what online resources students use to learn English. Based on the questionnaire, it was determined that the main applications used for learning English are Duolingo (45,6%) and Lingualeo (29,8%). It should be noted that their application options were also proposed: Quizlet, Engvid and Hellotalk (14%). As for the question about which Youtube channels for learning English they watch, the vast majority answered: I watched it several times, but I don't remember which ones (57,9%). The most popular answer to the question about using TedTalks was the following: 47,4% of students replied that they did not even know what it was. It should be added that when asked about communication with native speakers through modern technologies, most students answered that they did not communicate (49,1%). The final question in our questionnaire was about the presence of a psychological barrier when communicating in English is necessary. Apparently 84% of participants answered that yes, they have this barrier. The obtained results are presented via diagrams.

Based on the results obtained, it can be concluded that few students use Internet resources for their intended language learning purposes and know how to use them. The majority has a psychological barrier in communication that needs to be overcome in order to start speaking English.





The use of Internet resources in the classroom and during students' independent language learning, taking into account their age, psychological, and individual characteristics, will allow learners to absorb language information successfully and develop speaking skills, make the educational process more interesting, vibrant, informative, will help to affect all types of memory and all ways of perception of linguistic material, thereby facilitating the process of learning English for both teachers and students [1].

There are some **benefits** of using internet resources. They help to:

- fill the deficit of sources of educational materials;
- develop the skills and abilities through information retrieval activity;

- objectively evaluate knowledge and skills in a shorter period of time;
  - create conditions for the development of communicative competence, abilities to work in cooperation;
  - contribute to readiness for independent foreign language learning and further training;
  - gain experience in creative activities.
- Nevertheless, some barriers may emerge while using Internet resources:
- not all teachers know how to use them;
  - the Internet access is not always available;
  - extra few hours at the computer have an additional negative effect on the human body;
  - for most people it is very important to look into the interlocutor's eyes, monitor his facial expressions and catch the subtlest nuances in his voice. And this is almost impossible via Skype lessons [2].

**Conclusion.** In the conclusion it should be stated that modern life imposes ever-higher demands on teaching the practical knowledge of English in everyday communication and in the professional field. The volumes of information are growing and often the typical ways of its transmission, storage and processing are ineffective. Using online resources offers tremendous learning opportunities and helps us to cope with huge information overload.

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## **PSYCHOLOGICAL ACCOMPANIMENT OF JUNIOR SCHOCHILDREN IN THE PROCESS OF DEVELOPING MUSICAL ABILITIES**

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The article analyzes approaches to motivating the development of musical abilities in elementary school by means of psychological support. Here we highlight the classic, modern and innovative approaches.

At present, the number of clubs in institutions of both basic and additional education, as well as private schools, is constantly growing. Scientific and technological progress has freed up time for parents to identify the abilities of children, including special ones, and their development. If there is a

psychologist in secondary schools, there is no such position in art schools. There is a need to identify patterns of abilities formation, overcoming difficulties in the process of their development and skills application in life. It is no secret that the initiators of admission to schools that develop special abilities are parents. There is an evaluation system and control of the acquired knowledge in an individual form. In this regard, children have a double burden of work that requires perseverance and involuntary waiver of entertainment. This situation is typical for music schools, especially in the process of mastering the instrument. Therefore, musical abilities have been studied by psychologists for more than a century and a half. But now this problem is more relevant according to the era of information technology. Often children stop studying at music school because of the mismatch of their expectations with the efforts to achieve the goal. Junior school age is the most vulnerable in this regard, from our point of view.

L. S. Vygotsky emphasizes that "figurative thinking is the main type of thinking in junior school age. This is a period of activation of children's creative thinking, which rebuilds other cognitive processes. Associative complex is formed by a child of preschool age by combining phenomena on the principle of similarity of individual elements of neighboring phenomena and develops in future during school age" [1]. B. M. Teplov argues that "for musical creativity on a par with special abilities we need common ones: imagination features, visual imagination strength, sense of nature, emotional immersion in exciting content and skill to concentrate in it your mental forces (inspiration)" [2]. Therefore, we believe that the most effective way to increase learning motivation of junior students in the process of developing their musical abilities is to influence the associative susceptibility of music through synesthesia. According to the psychological dictionary, "Synesthesia is a phenomenon consisting in the fact that any stimulus acting on the corresponding sense organ, in addition to the will of the subject, causes not only sensations specific to this sense organ, but at the same time also an additional sensation and representation characteristic of another sense organ. Synesthesia is an enhanced interaction of analyzers" [3]. A number of researchers worked in this direction. Color-sound synesthesia is presented in the works of Trofimova I. A., Vanechkina I. L., Barysheva T. A., Maslova L. P. Auditory-visual synesthesia is considered by Teplov B. M., Yaroshevsky M. G., Tarasova K. V., Kaufman V. I., Gotsfner A. L.. Spatial-auditory synesthesia studied Zelenina E. O.

The aim of our research is to identify the level of influence of psychological accompaniment on students' motivation in music education.

**Material and methods.** The study will be conducted at the children's school of arts named after A.V. Bogatyreva (Vitebsk) among primary school students. To assess the level of school motivation, the questionnaire of N. Luskanova and the method of testing to determine the leading system of perception of the world were used in the experimental group.

**Findings and their discussion.** To achieve this goal, we have developed a system of tasks for creative perception of music. This takes into account the



physiological basis of perception of junior students (connection with cognitive processes, motor activity and emotional experiences).

Here we use the ideas of Vygotsky L. S. and Teplov B. M. in the refraction of socio-cultural conditions, the developments of contemporary authors (using auditory and visual channels of perception), as well as working with the missing modalities of perception and the using information technologies proposed by us. Form of work – group.

Schematically approaches to psychological support we reflected in the figure 1.

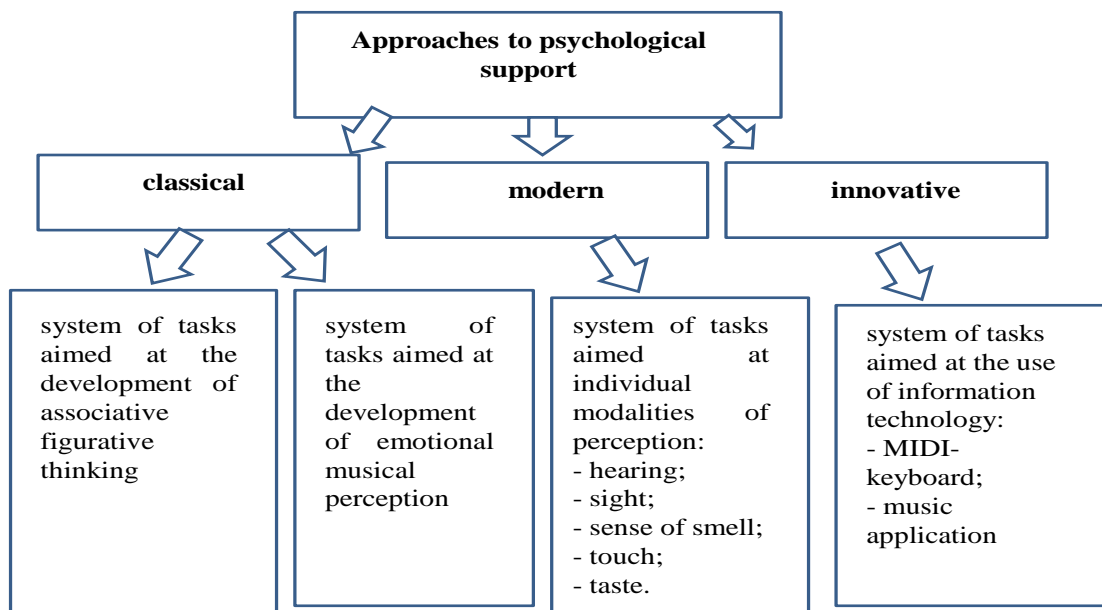


Figure 1. – Approaches to psychological support of junior students in the developing musical abilities.

**Conclusion.** Thus, it can be concluded that synesthesia is a priority in the development of musical abilities of younger students. There are already a number of developments in this direction, especially auditory and visual modality. However, this question has not been sufficiently studied with respect to other modalities. The novelty of the research lies also in the refraction of classical theories by modern conditions. And the era of information technology development determines the choice of additional innovative resources for the implementation of this goal.

The elements of the system of tasks for the creative perception of music can be used by teachers of music education, parents of primary school students of music schools, as well as psychologists in institutions of additional education.

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## PHENOMENOLOGY AS A METHODOLOGY FOR KNOWING IN EDUCATION AND PROFESSIONAL PRACTICE

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The specificity of modern life characterized by growing indeterminacy, which affects all aspects of today's life changing personality in a changing world" [1]. Phenomenology, in our view, is a potential methodology for creating a formative relationship between being and action, who we are and how we act.

Phenomenology in education should focus on the creative potential of the individual as a holistic interaction of bodily, mental and spiritual factors. It is not aims at creating systems, but at preparing people for the unpredictable life situations that characterize modern life [2, 3]. This study draws on phenomenological methods and concepts that had better understand the possibilities for creating formative relationships between being and acting, between who we are and how we act.

In this study, we will consider the application of one of the ways of studying the universal experience of phenomena through phenomenological research the possible meaning structure of interaction in professional encounters in the field of health care.

The aim of our recognized as the discovery of one's involvement in human existence and the establishment of relations with the outside world.

**Material and methods.** This study conducted in Vitebsk, by using the descriptive phenomenological psychological method A. Giorgi. The study participants consisted of nurses working in different medical institutions. Data were collected through individual interviews with 5 nurses, which included a few open-ended questions to allow the participants express their experiences and perceptions professional activities. The decrypted data obtained from the interview was imported into a Word document and then into the NVivo 10.

**Findings and their discussion.** A word-frequency query, containing 50 of the most frequently used words with a minimum of 4 letters, revealed the words that were most common in the interviews of the participants. The most visible words were «work», «patient», «emotions», «more», «should», «superiors» (Picture 1).

Following a version of Giorgi's recommendations of data analysis and classification of interview data in NVivo, through the coding process, helped to identify three the themes: nurses' perception of the work environment, physical and emotional overload, perception of professional activity.

*Work Environment.* Relationships with Co-Workers: the experience of nurses regarding relationships with colleagues is actualized as working alongside each other, but not working together: participant 1: «... We have less respect, support each other, relations have become tense...». Participant 3:

«...Before we had a sense of support, we were all for each other...». Note the importance of communication and support from colleagues, which "sets a note" in the work: participant 5: «...Just supporting the team would make me feel better...». Patient relationships: participants seek to alleviate the suffering of patients, acknowledge their subjective experiences, show empathy, and manage the emotions associated with providing care. Some participants suppress their emotions and feelings towards patients, and have difficulty in establishing contact with them: participant 4: «...However, we must always remember that hurts the same and good, and evil...». Participant 5: «...Put yourself in the patient's shoes...». Participant 3: «...Difficult to communicate, difficult to explain...».



Picture 1. – Word Cloud diagram.

*Physical and emotional overload.* The results of the participants' answers showed that the main cause of physical overload is an increase in the intensity of labor due to lack of personnel: participant 1: «...Day work procedural and dressing nurse, and in the evening, you are left alone...». Participant 2: «...Nurse due to congestion cannot provide full patient care...». Participant 4: «...Not always and snack is obtained...». Participants experience negative emotions as a result of emotional overload. The combination and intensity of negative emotions causes' excessive anxiety, depression, callousness, interfering with the performance of professional tasks, a sense of uncontrollability and short temper with family members and patients: Participant 1: «...People are disappointed in their profession». Participant 3: «...You become stale, you do not pay attention to anything, and you do not perceive already so acutely the patient's condition...». Participant 5: «... Lost fuse in the profession...».

*Perception of professional activity.* Almost all participants at the beginning of their professional career had a positive attitude to work and duties, as well as dreamed of obtaining medical education, and had romantic and humanistic ideas: participant 1: «There should be such a need in the soul-to help people, to surround them with attention and care». Participant 3: «When I came to work, I wanted to be useful, to benefit». Participant P5: «I wanted to help, all wanted to learn». Many participants during the interview stated that their perception of professional activity has changed over the years: Participant 1: «The prestige of

*our profession has recently begun to fall; it has become unprecedented to be a nurse». Participant 5: «Now I would never go to surgery».*

Thus, the combination and intensity of negative emotions causes excessive anxiety, depression, callousness, interfering with the performance of professional tasks, a sense of uncontrollability and short temper with family members and patients. Efforts to overcome stress due to conservatism, rigidity of thinking, unpreparedness for change, are ineffective, which leads to a sense of helplessness and lack of control over their lives.

**Conclusion.** In the analysis of the problem of indeterminacy, different aspects of the attitude to the future come to the fore: in everyday life, people often face changing circumstances to which they must adapt. Inability to cope with difficulties, the negative impact of stress factors can lead to the formation of destructive attitudes and inadequate reactions. It is therefore necessary to realize the potential of a phenomenological perspective in order to gain a deeper understanding of the pressing problems faced by people in this late modern world. The phenomenological method is positioned by us as the basis of understanding and inclusion in the experience, the ability necessary in an era of change from a representative of any profession.

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## **SOCIO-PSYCHOLOGICAL ADAPTATION OF THE NEWLY ARRIVED SOLDIERS REPLENISHMENT WITH DIFFERENT EXPERIENCE OF SPORTS**

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Psychological adaptation of personality in most cases, the level of adaptability of personality, its ability to change their ideas, values, relationships, adapt and rebuild them in accordance with the requirements of reality (E. Bern, L. G. Egorov, A. N. Leontiev, N. P. Lukashevich, V. L. Primakov, E. Musaeva, A. A. Nalchajyan, Zh.g.Senokosov, N. A. Sviridov). This applies equally to military activities.

Unfortunately, the problem of adapting young recruiting into the ranks armed forces to the conditions of service in recent years acquires increasing relevance. This period is particularly acute in the first months of military service at the servicemen of the newly arrived replenishment.

Military activity is a changeable, unusual conditions of human existence. Therefore, ensuring the person's adaptation to it involves not only appropriate training in his military specialty, but also work with his mind and psyche to relieve external neuropsychic stress, providing psychological assistance at the initial stages of official activity.

Physical training and sports are one of the main subjects of combat and vocational training, an important and integral part of military training and education of military personnel. The purpose of physical training is to provide the necessary level of physical training of military personnel for the effective implementation of tasks at any time and in any conditions, as well as to achieve the necessary level of socio-psychological adaptation to military service.

The purpose of the study is to determine the characteristics of psychological adaptation to the conditions of military service for servicemen of the newly arrived replenishment with various experience in sports.

**Material and methods.** The study involved 90 troops are newly arrived replenishment. The average age of the subjects is 19 years. The sample was formed taking into account the experience of sports activities: amateur athletes (athletes who systematically engaged in a chosen sport or physical exercise, took part in sports competitions (on a voluntary basis) and professional athletes (athletes for whom sports were the main activity).

The study used: psychodiagnostic technique: "Methodology for the diagnosis of socio-psychological adaptation" by C. Rogers and R. Diamond. To study the socio-psychological adaptation of the military, we used the integral indicators proposed by C. Rogers and R. Diamond: "A" - adaptation, "S" - self-acceptance, "L" - acceptance of others, "E" - emotional comfort, "I" - internality, "D" - the desire for dominance. The zone of uncertainty in the interpretation of the results is given without parentheses. The results "before" the zone of uncertainty on each scale were interpreted as extremely low, "after" the highest indicator in the zone of uncertainty - as high. Quantitative indicators for each integral criterion were correlated with the method key and presented in 3 levels: low level, normal and high level.

The psychologist of the military unit took part in the collection of diagnostic material and its discussion.

**Findings and their discussion.** This publication reflects the results of the analysis of the integral indicator "A" - adaptation presented in table 1.

The analysis of diagnostic data by the integral indicator "A" - adaptation "allowed to obtain the following results:

A low level of integral indicator "A" - adaptation, 51 servicemen from the number of newly arrived replenishment (56.6% of the total sample of the study), of which 27 amateur athletes (30% of the total sample of the study) and 24 professional athletes (26,6% of the total study sample). Social adaptation is the process of adapting a person to a changing social environment through various social means. The low level of social adaptation characterizes dissatisfaction



with the social environment, the need to obey the requirements of society, as well as the insufficient formation of social interaction skills.

The level of the integral indicator “A” - adaptation, normally have 39 servicemen from the number of newly arrived replenishment (43.3% of the total sample of the study), of which 18 are amateur athletes (20% of the total sample of the study) and 21 are professional athletes (23,3% of the total study sample). With the normal level of social adaptation, we can confidently talk about the ability of the servicemen of the newly arrived replenishment to interact constructively in changing social conditions, about the real need for establishing and establishing social contacts. The servicemen of the newly arrived replenishment are satisfied with their “significant others” and are trying to expand the circle of their contacts.

Table 1 - the severity of the integral indicator "A" – adaptation

	Low Level		Norm		High level		Total	
	a. b	%	a. b	%	a. b	%	a. b	%
Amateur Athletes	27	30	18	20	0	0	45	50
Professional athletes	24	26,6	21	23,3	0	0	45	50
Total	51	56,6	39	43,3	0	0	90	100

\* a. b – absolute value

It should be noted that the degree of employment and activity of youth athletic activity in the civilian period of life before being drafted into the army did not so significantly affect the subsequent adaptation to the new social environment and interaction with it, the need to obey the established requirements, conditions and content of military activity in more than half (56.6%) who took part in the study.

**Conclusion.** Thus, the results of the diagnosis of socio-psychological adaptation according to the “Methodology for the diagnosis of socio-psychological adaptation” revealed that despite the fairly active employment in the civil period with physical education or sports activities, most of the military personnel of the newly arrived replenishment (56.6%), of those taking part the study is characterized by a low level of social adaptation and is characterized by dissatisfaction with the social environment, the need to obey the requirements of societies as well as insufficient formation of social interaction skills.

The degree of employment and activity of youth athletic activity in the civilian period of life before being drafted into the army did not affect their subsequent adaptation to the new social environment and interaction with it, the need to comply with the established requirements, conditions and content of military service.

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## THE PECULIARITIES OF FORMING READING SKILLS IN ENGLISH

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The tasks of foreign language education in the Republic of Belarus are determined by modern requirements for knowledge of the foreign language in accordance with its role and functions in everyday life, the place of the foreign language in the system of general and language education. In this regard, the formation of students' communicative competence in the field of reception that would allow reading complex texts of social, cultural and educational fields is of a particular importance. However, students do not always cope with these tasks due to a number of difficulties caused by the specificity of the English language.

Thus, the relevance of the study is determined by the fact that the possession of reading technique skills is important for normal functioning of all types of speech activity and is the key to successful learning of the foreign language.

The aim of the research is to study the problems of teaching Russian-speaking students reading technique in English and to develop practical recommendations aimed at optimizing the educational process.

**Material and methods.** When writing the work, the following research methods were used: monitoring the organization of the educational process and experimental verification of the effectiveness of the system of our own training exercises at gymnasium № 1 in Vitebsk.

**Findings and their discussion.** Mastering reading in English always presents great difficulties for students. It is caused by graphic and spelling features of the English language. The English spelling system consists of 26 letters, 146 graphemes (letter combinations) that transmit 46 phonemes. Of 26 pairs of English letters (uppercase and lowercase), only four can be considered similar to the corresponding letters of the Russian alphabet in meaning and form (*K, k, M, T*). The letters *A, a, B, C, c, E, e, H, O, o, P, p, y, X, x* occur in both Russian and English, but are read in different ways, therefore, they are the most difficult to be recognized and learned. Other English letters are completely new for Russian-speaking students.

Considering reading as a communication process, it should be pointed out that it is determined by the mechanisms of optical signals visual decoding. It has been discovered that there are parts in the grapheme contour that serve as identification signs when perceiving letters. The nature and number of such signs for each letter is different. Depending on the conditions of perception they change.

Records of the eye movement show that it is carried out by inconsistent (arrhythmic) jumps of progressive nature. Visual decoding of optical signals occurs during the pause (fixation) of eyes. Changing eyes fixations as a result of their movement makes it possible not to mix up signals. It has been revealed that about three letters in the center of every visually perceived alphabetic complex

are imprinted on the retina with extreme clarity, the remaining letters are less and less clear as the number of perceived graphic signals increases, i.e. as the field of recognition widens. The eye retains impressions only from special features that are most characteristic of the given letter, striking forms, dominant signs of letters and words. The rest remains for the replenishing work of consciousness. Currently it has been experimentally proved that the reader perceives  $7 \pm 2$  graphic images in one fixation and makes an average of 4-5 fixations per line, and he can recognize the whole word, or a significant part of the word, or several words in one fixation [1, p. 11-13]. As E. Huey notes, the difference between a “good” and a “bad” reader does not consist in the speed with which the eye moves, but in the quantity and quality of the information that it perceives in every fixation [2, p. 17-18].

A special role in developing reading technique skills in English is played by the reading rules, that are generalizations with respect to many cases and allow students to interpret the material logically, which contributes to a more durable memorization of alphanumeric combinations. At first, it is better to train letters that correspond to one reading option. Letters that are read differently depending on their combination with other letters are recommended to be trained separately on the basis of imitation, differentiation and substitution exercises. Other effective exercises are: reading aloud memorized proverbs, sayings, tongue twisters, poems, small dialogs; finding in a row consisting of 6-8 examples a word that differs in spelling or is inappropriate for the topic, etc.; drawing up words and sentences on the topic under study using a split alphabet; filling in gaps in a word with missing letters or in a sentence with words that are meaningful, etc.

Thus, the conditions that form the skills of the reading technique in English include the presence of strong associations between letters and sounds; anticipation of the meaning of the word by some letters (ability to predict); syntagmatic division of the sentence, contributing to the integral units meaning perception.

**Conclusion.** Due to the historical spelling of a large number of words, teaching reading techniques in English relies on the whole word method, which assumes two ways of learning: a) first, the image of the whole word with a graphic highlighting of the studied letter or letter combination is presented, then the word is read and analyzed and the definition of the reading rule is given; b) the initial study of the rule-instruction with the subsequent reading of the same type of words by analogy with reliance on the keyword. When developing reading techniques at the word level, it is advisable to use rhymes, tongue twisters, and poems, as they help to overcome difficulties associated with the pronunciation of certain sounds, especially those that are not met in the native language.

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## TEACHING FOREIGN LANGUAGE GRAMMAR ON THE BASIS OF THE COMMUNICATIVE APPROACH

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According to the concept of teaching foreign languages in the system of continuous education foreign language proficiency is an effective factor of socio-economic, scientific, technical and cultural progress that contributes to the implementation of political, economic, commercial, humanitarian contacts.

Grammar study is a basic foundation for mastering a foreign language. Knowledge of grammar gives students the opportunity to build up their own statements in the correct way, to understand and interpret the text. Grammar is a material basis of speech together with vocabulary and phonetics of the language. It fulfills an organizing role.

So the aim of our research is to analyze theoretical foundations of teaching foreign language grammar on the basis of a communicative approach and to develop practical recommendations for its application in the educational process.

**Material and methods.** The research was held on the basis of Vitebsk gymnasium № 1(48 students). We used such research methods as literature study and its critical analysis (works of E.I. Passov, N.D. Galskova, I.A. Zimnya, G.V. Rogova, et al.), talk with the teachers, the observation of the teaching process at its scientific interpretation.

**Findings and their discussion.** Modern methodological science is characterized by two main paradigms of scientific knowledge: communicative and cognitive. In the communicative paradigm language and its analysis are mainly associated with the mastery of speech activity, in cognitive – with cognition, that is, with cognition and its accompanying processes. At the same time it becomes obvious that in order to solve a number of methodological problems a synthesis of the above paradigms is necessary.

The essence of the communicative approach in its most general form is to model the learning process as real foreign language communication. Only the main critical parameters of communication are taken into account: the personal nature of the communicative activity of the subject of communication; the relationship and interaction of speech partners; a situation as a form of functioning communication; a system of speech means, the assimilation of which ensures communicative activity in situations of communication; the functional nature of speech means; heuristic learning [1].

Thus, one can teach foreign language communication only by involving students in various kinds of activities by modeling real life situations based on the systematization of linguistic material. At the same time the main directions of communicative learning include: 1) stimulation of speech-cognitive activity of students, 2) ensuring individualization of the educational process, 3) taking

into account the functionality of speech, 4) creating situational training, 5) observing the principle of novelty. Situations can be real, conditional, imaginary. The main thing is that they should all be correlated with the age and psychological characteristics of students. In the process of forming grammatical skills students express their own judgment, attitude, agree or refute the opinion of the teacher or other students using the assimilated grammatical structures.

If we take into account the fact that teaching grammar of any foreign language traditionally includes 3 stages (explanation, training, application), the specificity of the communicative approach can be illustrated by the following model of the educational process. At the introduction stage new grammatical material is presented in speech situations orally or on the basis of a printed text. Communicative teaching involves general functional orientation of the target grammatical structure. For example: "Today you will learn how to talk about your plans for the future." Students getting acquainted with a new grammatical phenomenon in a speech pattern deduce its meaning from the context (sentence), comprehend it, establish its most essential features independently or under the teacher's guidance and formulate a rule.

The second step is training of the new grammatical material. The formation of grammatical speech skills presupposes the development of the ability to reproduce the phenomenon under study in typical situations and develop flexibility by varying communication conditions that require adequate grammatical presentation of the statement. At the training stage preference is given to conventional speech exercises that include imitation, substitution, and transformation.

The application phase is characterized by activation of the target material in speech. These exercises provide direct active use of grammatical structures in the process of composing dialogues, retelling, description, role-play, discussion.

**Conclusion.** Thus, the communicative approach must occupy the leading position in achieving educational and pedagogical goals of learning in the process of practical mastery of a foreign language. It provides a complete and balanced coverage of all sides, aspects and operations of mastering a foreign language in situations as close to natural ones as possible.

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## THE MAIN DIFFICULTIES IN PERCEIVING FOREIGN LANGUAGE SPEECH BY EAR

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Listening comprehension, or understanding oral speech by ear, is an integral component of oral speech without which communication is impossible.

The aim of our research is to analyze listening comprehension difficulties during the process of foreign language skills and habits development and work out some practical recommendations for their overcoming.

**Material and methods.** The study was conducted on the basis of gymnasium №1 and №2 among students 10 and 11 classes. The experiment was attended by 22 people. The following methods were used: literature review on the subject and its critical analysis (works of M. L. Weissburd, N.V. Elukhina, E. I. Passov, etc.); the analyses of the attended lessons.

**Findings and their discussion.** Focused listening comprehension teaching requires taking into account a number of objective difficulties that prevent understanding. These difficulties can be split into the following groups.

1. Difficulties due to the nature of the language material (phonetic, lexical, grammatical). Phonetic difficulties include poor development of phonemic hearing, lack of pronunciation skills, insufficient formation of acoustic articulation images, lack of a clear border between sounds in a word and between words in a sentence; the presence such phonemes that do not exist in the native language. A particular difficulty for a Russian student is that in foreign languages sound qualities such as longitude and brevity, openness and closeness are meaningful. Another great difficulty is different rhythmic and melodic patterns of different languages.

Among the lexical difficulties, it is necessary, first of all, to point out foreign language homonyms, homophones, and paronyms. When perceiving such words by ear, it is necessary to keep in mind the whole context or situation, otherwise the word learned earlier and better is comprehended instead of the target word.

In the field of grammar the greatest difficulty is caused by a discrepancy in the syntactic drawing of a phrase, i.e. an unusual word order. In the vast majority of cases, the connection between words is carried out using various service words that do not have an independent lexical meaning. As a result significant words are not clearly distinguished in the flow of speech merging with service words.

2. Difficulties associated with the language form of the message. It is noticed that unfamiliar words can cause a malfunction in listening. This reason makes it necessary to limit the number of unfamiliar words in the text presented for listening. It is generally accepted that such a text should not contain more than 3-5% of unfamiliar words.

The next problem is the length of sentences, because if it exceeds the amount of short-term memory, the listener forgets the beginning of the phrase and as a result cannot synthesize its meaning. Short-term memory amount is

limited to 7 (- or + 2) words [1, p. 35]. Therefore, at the beginning of training the length of the phrase should not exceed this limit.

3. Difficulties associated with the semantic content of communication, with its composition. A gradation of difficulties with respect to the semantic content of texts can be expressed in the transition from entertaining (interesting) texts to informative ones, as well as from narrative texts to descriptive ones, from monologic to monologic with dialogue elements and to dialogical ones.

Difficulties in understanding the content can also be caused by the peculiarity of the composition of the given text (lack of introduction in the text, the presence of several subject lines), which doubles the listener's attention and slows down understanding. That's why the structural features of the text should include headings, the main task of which is to create the desired direction of thought, draw attention to the main part of the text, and facilitate forecasting.

4. Difficulties associated with the condition of the presentation of the message: the pace of speech, the appeal or lack of speech to the listener, the habit of the speaker's voice, the presence or absence of visual support.

It is advisable to maintain a normal pace, since artificial deceleration distorts the intonation pattern of the phrase, interferes with the speed of the reaction and significantly slows down the development of speech skills, weakens attention. As far as the fast pace of speech in a foreign language is concerned it changes the sound quality, unstressed sounds are reduced. Sometimes completely omitted, words and phrases acquire an unusual sound.

For the listener it is far from indifferent to whose voice he is listening to. The character of perception to a large extent depends on the individual characteristics of the speaker's speech (voice timbre, diction, peculiar pronunciation of individual sounds), distinctness and expressiveness of speech.

The presence of the visual support is of great importance for understanding oral speech, that's why foreign speech is perceived harder on the phone or radio than in private conversation.

5. Difficulties connected with information sources. In the process of teaching different audiovisual and auditory sources of information are used, the easiest of which is the teacher's story. The most appropriate sequence of information sources presentation is to be: 1) teacher's speech + picture visualization; 2) teacher's speech + filmstrip; 3) teacher's speech without any graphical support; 4) teacher's speech + film; 5) filmstrip + unfamiliar voice; 6) television; 7) movie + unfamiliar voice; 8) tape recording (teacher's speech); 9) tape recording (unfamiliar voice); 10) radio [2].

**Conclusion.** The analysis of the phenomena that hinder the perception of speech by ear allows the teacher to select and graduate the material correctly, which can serve as the basis for the development of exercises aimed at teaching students to overcome the difficulties considered. The knowledge of mechanisms and difficulties of speech perception makes it possible to put forward the tasks that are the key to the successful development of listening comprehension skills. In this connection it is necessary: 1) to distinguish subconsciously the

forms of words, phrases, grammatical structures by ear; 2) to anticipate syntactic structures; 3) to develop the amount of auditory memory; 4) to understand all kinds of combinations of the learned material; 5) to grasp the meaning of what was said once; 6) to understand speech at a normal pace; 7) to understand the general content and meaning if there is unknown material in the audio text; 8) to understand diverse text styles (descriptive, fabulous, multifaceted).

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## **FEATURES OF FORMATION OF SKILLS AND ABILITIES OF INTRODUCTORY READING IN A FOREIGN LANGUAGE**

**Kristina Vasilyeva**

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In the life of the modern educated person reading occupies a significant place. It acts as an independent type of communicative activity, the motive of which is to obtain certain information. The degree of perfection of reading maturity can be different, and the school has a task to provide the level of communicative competence provided by the program.

In the practice of reading in a foreign language, introductory reading is the most common type of reading. Thus, the relevance of this work is the importance of developing new ways to optimize learning this type of reading.

Purpose – to study the features of communicative learning of introductory reading in English at the primary, secondary and senior stages of foreign language education and to reveal the methodology of teaching introductory reading in English through communicative tasks.

**Material and methods.** When writing the article were used conversations with teachers of schools in Vitebsk, scientific and fixed observation of the educational process in secondary and high schools No. 1 and No. 2 in Vitebsk. Also, the following research methods were used: the study of literature on this topic and its critical analysis (the work of Galskova N. D., Gez N. I., Zimnaya I. A., Klychnikova Z. I., Passova E. I., Rogovoy G. V., Solovova E. N., Folomkina S. K., etc.).

**Findings and their discussion.** Introductory (synthetic, extensive) reading is a cognitive fluent reading, without a dictionary, proceeding at a fairly rapid pace, in which the subject of attention of the reader becomes all the speech work (book, article, story). The main communicative task facing the reader is to extract the basic information contained in the text as a result of a quick reading of the entire text.

For practice in this kind of reading are used relatively long texts, easy in language respect, containing not less 25–30% excess secondary information. The degree of completeness of understanding is determined within 70–75% of the facts contained in the text, including all the main ones, with the understanding of the main information-accurate, secondary-correct, undistorted. The rate of introductory reading should not be lower than 180-190 words per minute for English and French, 140–150 – for German.

Exercises to develop the skills of introductory reading are divided into two groups: a) preparatory; b) speech.

Preparatory exercises are aimed at rapid undifferentiated reproduction of large elements of the text, to develop a normal pace of reading, the development of skills of forecasting and language guesswork. These include:

1. Exercises that teach recognition and understanding of the familiar. For example: "Find among the sentences written on the Board the one that corresponds to the picture shown, or the one that is on the card."

2. Exercises that teach untranslated understanding of individual sentences. For example: "Find among the proposals those that do not fit the topic."

3. Exercises that teach understanding sentences containing unfamiliar words. For example: "Identify unfamiliar words by word formation (context, conversion, analogy with the native language)".

4. Exercises aimed at teaching the coverage of large units of the text and the development of a normal pace of reading, for example, a quick search in the text of the sentence, the beginning of which is pronounced by the teacher; reading a given passage in the shortest possible time, etc.

Speech exercises are divided into:

1. Exercises that teach understanding of the General content, for example, finding answers to General questions during a cursory acquaintance with the text.

2. Exercises that teach understanding of basic ideas and highlighting details. They are aimed at finding the meaning of the story, establishing the sequence of events, as well as determining the details in the text and their functions. Typical exercises of this kind are drawing up a plan, restoring the sequence of points of the plan, the paragraphs, the selection of information for each point of the plan.

3. Exercises that develop the ability to review the read, for example, answers to questions of an evaluative nature; the choice of proposals in the text containing qualitative definitions; the selection of information to characterize the actors, etc.

Vocal exercises are always done on the basis of the text. There are certain conditions for successful work with the text for introductory reading. These include: 1) carrying out in real time (fast pace); 2) organization of one-time reading about yourself; 3) checking the understanding of the basic information; 4) exclusion of translation into the native language, as it contradicts the nature of introductory reading [1, p. 241].

When working on the text for introductory reading, there are three stages: 1) pre-text; 2) text; 3) post-text.

The purpose of the pre-text stage is to create motivation for reading, as well as to overcome lexical, grammatical and linguistic difficulties of perception and understanding of the text through the use of various supports and other factors facilitating the perception. Different techniques are used to create motivation. It can be a conversation about the author, about the problems of the text, setting a communicative task.

The text phase is dedicated to controlling the understanding of the text and extracting basic information. Exercises to control the understanding of the main content of the text can be represented by the following types of tasks [2, p. 123-124]:

1. Read the text, tell which statements are correct, and correct the incorrect ones.
2. Choose the correct answer to the question from 3-4 options.
3. Make a plan of the text.
4. Find the main idea at the beginning, middle, end of the text.
5. Emphasize in each paragraph one or two sentences that could be omitted as irrelevant.
6. What are the most interesting questions / data contained in the text. Specify where you can use this information.
7. Indicate in the text places that do not correspond to the information that the teacher told you previously.
8. Divide the text into parts that are complete in meaning.
9. Read the text and fill in the table, etc.

The post-text stage can include: drawing up dialogues; dramatization of the text; holding discussions on the content of the text; making an annotation; filling in questionnaires; selection or own development of illustrative material; preparation of projects, etc. This list of tasks is based on the ideas of communicative learning, in particular, on its leading principles of speech activity, individualization of learning, novelty, situativeness, functionality.

**Conclusion.** In the most General terms, the algorithm of teaching introductory reading can be represented as follows:

- 1) read the title of the text, try to determine its main theme;
- 2) read paragraph after paragraph, noting in each sentence, bearing the main information, and sentences that contain secondary, additional information;
- 3) determine the importance of paragraphs, mark those that contain more important information;
- 4) summarize the main information into a meaningful whole.

Teaching introductory reading will be effective only if the educational process stimulates the mental activity of students, accompanied by the solution of certain mental tasks that require understanding of the facts contained in the text and assessing their significance.

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## **SPECIFICS OF THE ORGANIZATION OF SOCIAL AND CULTURAL ACTIVITIES IN THE CONDITIONS OF INCLUSIVE EDUCATION**

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To date, the actual problem is the inclusion of people with peculiarities of psychophysical development. The potential of social and cultural activities has methods, forms and means for the most successful adaptation of this category of persons in society. The main space for the organization of such activities is the territorial center of social services.

The purpose of our research: to study social and cultural activities as a condition of inclusive education for persons with disabilities.

**Material and methods.** The basis of the study was chosen: PI « Territorial Center of social service of the population Railway district of Vitebsk ». The total number of respondents is 40 people, including 14 girls and 26 boys, aged 19 to 31 years.

The following methods were used for achieve the purpose of the study: analysis of scientific and methodological literature, descriptive-analytical method, comparative analysis, questionnaires, and methods of mathematical statistics.

**Findings and their discussion.** On the basis PI « Territorial Center of social service of the population Railway district of Vitebsk» operate the day-care unit for the disabled, whose purpose is to assist in the integration into society and rehabilitation of people with disabilities. Realization of this direction of work is carried out by means of the organization of circle and club activity, cultural and mass work, social and household and labor rehabilitation. It should be noted that in addition to the main tasks of the unit (Department) such as:

- assistance to persons with disabilities in the restoration (compensation) of impaired or lost due to disease skills for self-care and in preparation for independent life;
- development and maintenance of skills of behavior of disabled people, self-control, communication, acquired in the CCDE and R, as well as the use of technical means of social rehabilitation;
- assistance in employment of persons with disabilities;
- work with relatives of disabled people in order to organize continuity of rehabilitation activities in the family;
- creating conditions to meet the communication needs of persons with disabilities and their families;
- coordination of efforts of specialists of different profiles to identify those in need of special assistance.

A separate item can be identified tasks related to socio-cultural orientation:

- diagnostics of the level of development of inclinations, abilities to certain labor operations for further work in the labor and creative workshop;

– implementation of measures for the organization of social partnership of public organizations and state structures within the framework of the law «On social services » for practical activities on rehabilitation and integration of young people with disabilities into society, realization of their rights.

– development of creative abilities and interests of disabled people, abilities to work, work skills, ensuring the realization of their rights and potential employment opportunities through occupational therapy;

The developing environment promotes self-realization and social adaptation of young people with disabilities, identification and development of their individual characteristics, disclosure of their creative potential and as a result, helps people with disabilities to adapt to independent life, increases their competitiveness in the labor market.

For creature and for such a developing environment, we decided to conduct a survey of the studied sample to identify leisure preferences. By type of activity, the majority of young disabled people surveyed like to sing (51%) and dance (49%). Time, the most comfortable for the organization of such activities in the morning until 12.00 (70%) and in the evening (30%). 40% of disabled people have a desire to visit the (unit) department 2-3 times a week; 4 times a week-50% and 5 times-10%. When answering the following question, the most of young people, namely 60% said that with friends it is better for them to do their favorite things; with family-30%, 10% alone. It follows that the most of young people with disabilities, regardless of the degree of health disorders, physical, mental, psychological disorders want to visit the department (unit) more often, be with friends and engage in various types of leisure activities.

In their free time, young people with disabilities mostly 40% – watch TV, attend theater and concerts-20%, the same percentage said that they prefer active recreation and help their family members around the house. As for preferences in relation to creative teams, the number of responses shows that young people with disabilities are interested in different directions in creativity; the indicator is the choice in 100% of all teams. The choice of subjects of TV shows is also diverse as evidenced by one hundred percent choice. Analyzing the answers to the questions, it should be noted that despite the limited opportunities of this group of young people they want to gain knowledge in many areas and spheres of life.

In the studied department of TCSSP there are 15 circles and 6 clubs, such as, arts and crafts, are organized: «Magic ball», «Lyanok» artistic Director J.G.Kovalevskaya; «Skillful handles» artistic Director L.V.Masko; «Kaleidoscope» artistic Director L.V.Selivanova; fine art: «Palitra» artistic Director J.G.Kovalevskaya; social rehabilitation: « Housekeeping » artistic Director L.V.Masko; «Housewife» artistic Director L.V.Masko; «Scissors» artistic Director A.A.Mazgo; intellectual development: « Erudite » artistic Director A.S. Yaskina; «Fantasia» artistic Director V.D. Karaulov; computer literacy: «Spectrum » artistic Director A.S. Yaskina; «Foto» artistic Director

A.S. Yaskina; theatrical and musical orientation: « Music carousel » artistic Director L.V. Potapkina; «LiK» artistic Director L.V. Potapkina; « Noise instruments » artistic Director L.V. Potapkina.

All managers are aimed at organizing not only comfortable conditions, but also the most effective for the development of the communicative sphere of this category of people. To do this, we asked clarifying questions to young people with disabilities about their ability to help in the course of group work to the same participants. The analysis of the answers shows that 80% are ready to provide all possible assistance to the group, 20% will help, but only with advice or recommendation. The majority of respondents will react calmly to their possible failures and 70% will try to improve the result; 30 % will not react in any way.

All respondents said that they like to visit the day care unit for the disabled. All young people with disabilities who participated in the survey are satisfied with the work of the unit.

**Conclusion.** Thus, based on the answers, we can give several recommendations for the organization of socio-cultural activities: circles should be formed according to the preferences and interests of young disabled people attending the unit; it is necessary to take into account the mental and physical abilities of each disabled person in the organization of circle and club activities; the main part of the work related to socio-cultural activities should be directed to socio-cultural rehabilitation; more often arrange joint collective activities for all young disabled people attending the unit.

## DESIGN AND MODELLING OF SUBJECT SPATIAL ENVIRONMENT BY MEANS OF DESIGN, FINE AND DECORATIVE ARTS

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### BATHROOM ACCESSORIES DESIGN DESIGN

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Modern trends in the formation of the bathroom focus on the aesthetics of the bathroom environment as an object of design. The free layout of apartments and private houses made it possible to scale the bathroom to the needs of a particular user. At the same time, aesthetics of space are given special attention. From the general planning of communication systems to the detailed study of finishing materials. Of course, the bathroom accessories themselves are undergoing fundamental changes. One functional side is not enough for a modern person, he pays much attention to the visual solution, the correct ergonomics of the subject, and of course, in the case of a bathroom accessory, hygiene.

Purpose: creating a design project for a bathroom accessory designed for hand hygiene.

**1. Predesign analysis.** One important aspect of protecting human health is hygiene. From ancient times to the present day, people have come up with various methods and devices to ensure clean hands. One of the most common care products today is bar soap. At the same time, it is also a leader in preserving the environment, as it is produced from easily renewable sources. The existing accessories for its storage and use have always had a number of significant drawbacks: the general use of one piece in a public institution, the soaking of the top layer, the aesthetically unpleasant appearance of the place of storage of a piece of soap on the sink.

**2. Design installation** (design concept and design scenario). Creation of an accessory for hand hygiene with the absence of deficiencies identified during the design analysis. At the same time, this accessory should have characteristics that correspond to the trends of the modern approach to the formation of the bathroom environment. The accessory must be used in a non-contact manner. The main raw material is bar soap. This accessory can be used in the bathrooms of public and residential premises. Availability of use around the clock, which puts additional requirements for noise level.

**3. Design decision.** Creating a design project requires passing the required stages. These stages include: definition of a social problem, formation of a concept and image search, development and modeling, determination of materials for manufacturing an accessory, creation of a final project decision.

Consider these stages in the context of this design installation.

1. Definition of a social problem. At this stage, the goal and objectives of the project were formed.

2. Formation of the concept and image search. After studying analogues, it was decided to design a bathroom accessory non-contact, as it can be used in rooms with high traffic [1]. The main raw material is lump soap, which is placed in a separate element of the accessory.

3. Development and figurative modeling of the form. When developing and figuratively modeling the form, first of all, it is necessary to build on the volume and shape of the automatic mechanism [2]. After finding the proportions of the mechanism, the shape and bionic style of the accessory was revealed. An image of a blue whale was chosen as an image for shaping.

4. Definition of materials for manufacturing the accessory. When determining the materials for this accessory, it was necessary to take into account such aspects as: practicality, durability, frequent interaction of the accessory with water, environmental friendliness [3]. After analysis, it was decided to use anodized aluminum and stainless steel, which have an aesthetic appearance, corrosion resistance, environmental friendliness and a long service life, without the risk of fading [4].

5. Creating the final solution to the accessory. The final accessory was designed in the program for three-dimensional modeling-3ds Max, and then visualized in the program - Corona Renderer.

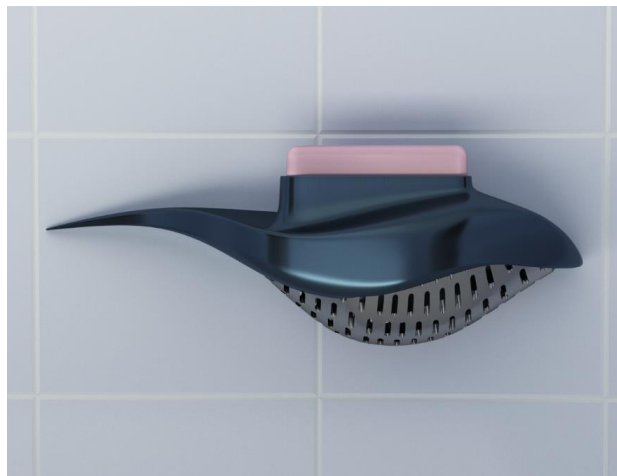


Fig. 1 Bathroom accessory designed for hand hygiene.

**Conclusion:** Caring for the environment and protecting human health are topical issues of modern design. The result of this work was the creation of a bathroom accessory designed for hand hygiene [5]. Which is based on environmental issues, hygiene and convenience of non-contact use.

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## **MARTIN FOESSLEITNER’S DESIGN FEATURES USING AN EXAMPLE OF THE DEVELOPMENT OF TRAVEL DOCUMENT TEMPLATE FOR RAIL TRANSPORT**

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Currently there is increasing emphasis on such an approach of information design which promotes more convenient and efficient people understanding. Branch of design which deals with communication in simple and clear terms, is called an information design. It is frequently the link that binds other design components. However in all cases, information design is reduced to the adoption if decisions how to present the information to make it easier for people to perceive and use it.

Problem urgency is defined by the complexity of guidance in modern urban space replete with various information which got almost out of human control. Workshop “UNOVIS. New utopia” focused on the problem of information provision in Vitebsk urban environment, the leader of which was an Austrian designer, the Vice-President of International Information Design Institute – Martin Foesleitner.

The aim of the study is to determine the features of Martin Foessleitner’s methodology in the design process by means of information design using an example of the development of travel document template for rail transport.

**Material and techniques.** In the process of working chronological, comparative and descriptive research methods were used. Th main sources of information have been web-based information resources, publications in local periodicals of Vitebsk region and also details derived from people interviews.

**Findings and their discussion.** Through the workshop with students of the Art and Graphics Faculty Martin used the concept of Graziella Tonfoni “espresso coffee”. According to this Information Design can be compared with the concept of the Italian espresso: it requires strong beans = content; well-roasted and brewed = competence; as much water as necessary = little; made

with Moka-pot = simple; sweet and suitable for consumption = aesthetics; to enjoy in public life = context.

According to the Martin Foesleitner's technique the design-process includes three main components (three diamonds): research, creation and testing.

Stage of research includes object analysis by certain set of parameters: location, alphabet, time, categories and hierarchy. The author of this view is the British designer Richard Saul Wurman and he calls it – LATCH (abbreviation by the first letters). He considers: «Any design takes place in situations. Any situation is a set of data. Any date can be organized and represented in at least five main dimensions: locations, visualized by maps; alphabet, as a glossary or index; time, like timelines or sequences; categories, differences without ratings; hierarchies, in measurable figures [1].

Working in groups we were invited to explore space of Vitebsk railway station. It is an important stopping hub of suburban, inter-city and international railway traffic of Vitebsk region. The railway station operated 24 hours a day without regard to the changing seasons. It is used by different categories of persons: schoolchildren (mostly sportsmen), students, specialists whose work involves frequent business trips, pensioners (mostly farmers), inhabitants of Vitebsk and Vitebsk region, residents of the other regional centers and foreign guests. Among them the citizens of the other regions of Belarus and guests from the other states remain in the railway station for the longest time.

Photo fixation is the most important way to investigate the object of the project in greater depth. It is the way to show our surrounding and the way how we both photographers as well and designers relate to them.

According to Martin Foesleitner's technique an important step of the research is also a social interaction with actors of the design process he main idea of which is to conduct interviews. To identify problems encountered railway station users a survey of local residents was conducted. As a result a number of shortcomings in the layout and design of the station was formulated. While expressing their opinion people most frequently talked about a gloomy view of the interior, a confusion with information and a lack of bright accents. But mostly all of them traced back to the fact that citizens and tourists are unable to identify their seat in the city and have difficulties in choosing any particular ways of movement. On the basis of analysis the main problem has been allocated it is an absence of culture reflection for citizens and guests.

As a starting point in choosing the design project Martin offers the concept of universal design that takes into account age, disability, culture, language, social status and so on because there are many other reasons to feel limited and restricted.

This approach is supported by the German designer Tomas Bade: «Any subjects of design requires three basic conditions: study and protect the privacy, provide access to public spaces and offer participation in public life».

The concept of the Universal Design let us figure out the topic. As railways is one of the most popular way for travelling, and travel document is the first thing which fall into the hands of any tourist, we decide to develop a new travel ticket format and design.

While projecting Martin has offered us to use the concept “A dog”. “If you loose your dog, it may be three strategies for reintegration: seek for the dog, how the seeker behave, imagine if you are a dog. This third strategy can be applied to everything: imagine if you are a sign, folder, fruits in the supermarket, theatre tickets, complimentary ticket, a shoe in the shelf or a cup of espresso, what, how, when, where, who you would like to be presented, processed, reported or recycled”.

We have imagined that we are tickets. We wanted to be compact, not to be pulled on the brim, to be informative and to be attractive. On the basis of received submissions, we have determined that document will contain not only trip data (time, route, train number and etc.), but also a link on the city website with the help of which anyone can receive the main information about the sightseeing and public places of the city.

Well-planned actions lead to the first step immediately. The first way is determinant and must be accompanied by immediate fast prototyping in low resolution.

With the development of a few sketch variants Martin has brought us to the simplest and concise decision with interactive feature – qr-code. As the basis of ticket graphic design were taken the element inherent to suprematic style, which reflected cultural heritage of the city (Picture 1).



Picture 1 – New ticket layout

Obtained product has demonstrated the use of the concept “An iceberg” in the Informational design. The main idea of which is to hide behind the visual forms very important components: analysis, understanding, structure, concept, systematization.

In a testing phase an assessment survey of local citizens about our design product has been conducted, during which the locals supported the idea of railway ticket modernization.

The concept of the Temporary design SHINTO tells the designers that they need to seek for design project. The Informationall design is a constant dialogue

with the context so removal of the old attitudes and searches of new one is also a part of general Martin's technique.

**Conclusion.** Due to the proposed Martin Foesleitner's technique we are convinced of the importance of each stage of the design process. Moreover due to the closer collaboration with the design object users, we are convinced in the importance of the Informational design.

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## **THE CONCEPT OF RATIONALISM IN ARCHITECTURE ON THE EXAMPLE OF COMMUNAL HOUSES IN VITEBSK**

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Nowadays the concepts of rationalism are increasingly used in the design of architecture and its internal environment. As in the 20th century, this consecution remains innovative. The study of the role and place of this direction in history makes it possible to identify the factors and trends in the development of national and world architecture.

The aim of the research is to analyze rationalistic concepts and their application in the architecture of Belarus.

**Material and methods.** The purpose of the research is the soviet and modern architecture of Belarus. The main sources of information are monographs and articles devoted to the avant-garde direction - rationalism. A systematic approach is applied. Also some methods like analysis, comparison, generalization and synthesis of the studied information are used.

**Findings and their discussion.** The avant-garde method - rationalism - was developed in the 1920s - early 1930s. The style is characterized by simplicity and conciseness, rigor and functionalism. Rationalists investigated the psychological perception of architecture and space by people.

A vivid example of the rationalist architecture of housing are houses-communes of the 1920-1930s in Vitebsk, which were associated with the division of the country into western and eastern regions. Their construction has been based on provision of cheap housing to workers and specialists according to the construction program of a new housing type of commune houses since 1921. Such an ideal dwelling had to meet all the sanitary, technical and aesthetic requirements of new Soviet people.

According to the project program, the two- and three-room family apartments had utility rooms and a kitchen, as well as common areas such as bathrooms, showers and closet, and public areas such as a kindergarten, nursery, and reading room library. Separate rooms with a washbasin and public spaces

were predestined for small families (for one, two people): reception rooms, libraries-reading-rooms, dining rooms, kitchens, closet, bathrooms, showers, latrines, etc. In the residential quarter, all buildings were with social premises: an ambulatory, garage, laundry, house office, assembly hall, etc. The building's housings could be separate or connected to each other, the building itself was four-storey.

This new rationalistic approach to housing has led to construction of the following houses in Vitebsk.

The first apartment house was built in 1926-1928, on Suvorova Street (formerly Volodarskogo Street), architect V. Vukolov. The second communal house was built in 1928-1929, the modern address is 38 Suvorova Street. The third house of communal type stands at the intersection of Uritskogo and Communisticheskaya street, erected from 1928 to 1933. The fourth communal house is located on the corner of Sovetskaya and Suvorova Streets. Communal House or 5th Municipal House (36/25 Maxima Gorkogo Street) - a building designed by architect A. Vyshelesky in 1927–1929. Before the war, the sixth and seventh commune houses were located on Smolenskoye highway, today Zhestkova street, No. 15 and No. 17. The eighth house is located at Maxim Gorky Street, 57, built in 1929-1936. The ninth house on 4 Novyi Byt Street, was built in the first half of the 1930s for the employees of the bread-baking complex. The tenth communal house was built on 37 Frunze Avenue.

Communal houses were built in other cities of Belarus: Minsk, Bobruisk, Mogilev, Gomel. Having analyzed these examples of communal buildings, it is possible to notice that the houses were as an independent organism and a model of social structure within which the basic vital functions of the collective are realized.

**Conclusion.** Thus, this type of architecture began and developed mass sectional housing, which continues up to this day. In recent years, the individualization of the creative handwriting of individual architects, both in mass and individual construction, has become increasingly important in the originality of individual styles. However, the principles and concepts of rationalism are observed in modern modular houses with effective use of area, also having simplicity and functionalism.

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## ANALYSIS OF THE STONES MUSEUM

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The museum is important part of cultural life of community. This place is a repository of the past, where you can find a lot of interesting information about history and secrets, forgotten events and unknown facts. In the museum you can always be surprised at the works of art, get aesthetic pleasure from the exhibits. An important condition for designing a museum space is to achieve a sense of aesthetics and satisfaction. When designer organizes environment he always try to influence on the visitors with directing techniques, such kind of special, thoughtful introduction of means of artistic expression, that aimed at creating the atmosphere most conducive to the perception of material [1].

The purpose of the study is to develop a design project for stones museum.

**Material and research methods.** The study is based on the analysis of educational projects of students of VSU named after P.M. Masherov specialty "Design", as well as materials published in scientific and specialized literature. The main research methods are systematic approach to the research problem, comparative analysis and synthesis.

**Findings and their discussion.** Since ancient times, stones have played a big role in the life of Belarusians. The cult of stones always existed and was widespread here, which affected many aspects of people life, especially the religious, poetic, philosophical, the traditional way of life, historical events, famous people.

The museum of stones is unique in that the presented collection of exhibits is a live encyclopedia for visitors. Here you can clearly get knowledge about the rocks. Such a museum already exists in Belarus, but it is located in open space, which makes it difficult to visit in bad weather, and generally fails to meet the standards of modern museums. Therefore, it seems advisable to develop such a design project of a space where you can see valuable pairs of stones and also feel their statics.

The design project of the stone museum was developed by us on the basis of the principles of system design and included the following stages: pre-design analysis, design installation, design solution, planning solution.

The basis of the pre-project analysis is the systematization and selection of factual material, artifacts and proposed exhibits.

The concept is based on the image of a boulder monk. This large stone, as a silent witness for thousands of years, watched that was happening around, stood firmly in spite of wars and natural disasters. It has accumulated the entire memory of the universe over vast periods of time.

The atmosphere of the museum should resemble a foggy field with a lonely standing stone. Therefore, the main colors were chosen concrete gray and a shade of ivory, and as an accent color of thistle.

And in the corporate identity of the museum there is also black color. It manifests itself in signs of communication that are devoid of visual burden, their image is ascetic and static, which corresponds to the concept of the museum.

The logo meets the trends of 2019, it was developed for two platforms: web space and printed materials. The sign has a transformable design, which gives it an individual character in relations with visitors. The logo allows you to change the images, textures and color elements presented in it. It is quite unusual, flexible and very creative.

A subject-spatial environment was created on the basis of the graphic image of the museum. At the zoning stage, the museum was divided into six zones in accordance with the functional purpose of the premises: entrance zone, common room; then zones are separated by the origin of the stones: stones of terrestrial origin, stones of underwater origin, extraterrestrial origin, volcanic.

For each zone, exhibits that were not only made of stone were selected, but also supplemented with other forms. So, for example, for a zone of stones of underwater origin, sculptures made of stones resembling reefs were chosen.

In general, the museum has a very minimalistic look to convey the atmosphere and attract greater attention to the exhibits. It has strict architectural forms that are made of concrete. The ceilings, with rounded corners, are decorated with plaster. This is all a good background for exhibits that have colorful colors. Also, soft furniture materials look very profitable against the background of restrained walls. To help visitors navigate into the interior space, communication signs are introduced, which also favorably complements the visual image.

**Conclusion** The result of this work was the design project of the stones museum, which is a complete and harmonious represents the form of the interior, visually revealing the theme and functionally logical. These methods of developing a design project for a museum of stones can be used by students of VSU named after P. M. Masherov in the specialty “Design” in the course of design design.

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## **DISCIPLINE “PERSPECTIVE”: IMPROVE TEACHER’S EFFICIENCY**

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Studying of graphic disciplines is one of the conditions of art teacher’s professional training success. “Technical drawing and descriptive geometry”, “Perspective”, “Technical graphics and perspective” and others can be considered as such ones. According to typical curriculums they are studied predominantly during the first years of studying.

Thus students of faculty of art and graphics study “Perspective” discipline in the first year, i.e. basically right after they have come to the university.

In the typical curriculum of the discipline there is the following definition: “Perspective is the theoretical basis of the visual arts, is a science that studies laws of construction objects on the plane in such a way, how they are perceived by human eye on direct observations in reality” [2].

It makes sense to note that although perspective as science is based on visual perception almost every human, however because of the constructions are performed according to particular laws using means and techniques of perspective constructions, they cause difficulties in mastering for students.

Thereby the goal of our research is developing a set of assignments to facilitate improving of efficiency of mastering initial key topics of the “Perspective” course.

Actuality of the research is determined by the fact, that “in the complex of art and graphics academic disciplines studied in educational institutions “Perspective” make great importance since it appears to be an important part of future art teachers’ art literacy, basis of their graphics training.

**Material and methods.** The direction of the research determined the choice of its conduction: perspective educational literature analysis (V. N. Vinogradov, M.N. Makarova, N. V. Kaigorodtseva, V. V. Petrova and others), normative and methodical documentation, pedagogical experience generalization.

Also analysis of educational works, fulfilled by full-time and extramural students of the faculty of art and graphics were conducted.

**Findings and their discussion.** Due to limited amount of class hours and complexity of the material in addition to fulfilling graphic works, assignments from the workbook published by Vitebsk State University named after P.M. Masherov in 2016 are used during the practical exercises. Assignments to all topics of the course are presented in the workbook [1].

Here also assignments aimed to comprehend one of the key course topics “principle of projection” are presented. Since the topic is studied at the beginning stage, practice of teaching shows that it causes some difficulties. It is useful to mention that comprehension of this material appears to be one of the main factors of successful learning of almost all further discipline’s materials.

The essence of the assignments consists of constructing perspective projections of simple geometrical objects – dots and lines. Herewith the dots are constructed given the table with coordinates (X, Y, Z), which connects it to descriptive geometry.

The assignments are conducted in the following order:

- visual image of elements of projection is drawn by axonometry principles of construction;
- the dots in the subject space are constructed by the given coordinates;
- on the visual image constructs the perspective projection of dots or line segments on the picture plane.

However as a result of the conducted research was supplemented with construction of dots and line segments on the picture plane perspective itself in such a way how they are seen by the observer.

It allows to demonstrate the connection between what is depicted in perspective and the mechanism of obtaining the image itself in the maximal understandable form.

As far as analysis of the training works performed by students shows, such a supplement significantly improves efficiency of comprehending of one of the key topic of the course.

**Conclusion.** Hereby the studying process of graphic disciplines requires the teacher to permanently search the most demonstrative and effective learning tools. Wherein according to the educational standard of the speciality it's mandatory to follow structure and content of disciplines, successful mastering of which is required for future art teachers in there further learning and professional activity.

1. Alchimeonok, A.A. Perspective: workbook for students of day and correspondence forms of education art-graphic faculty in the field of: 1-03 01 03 "Fine arts and computer graphics"; 1-03 01 06 "Fine arts, drawing and folk crafts" / A.A. Alchimeonok. – Vitebsk, VSU named after P. M. Masherov, 2016. – 59 p.
2. Perspective: Typical curriculum for the discipline for specialties: 1-03 01 03 "Fine arts and computer graphics"; 1-03 01 06 "Fine arts, drawing and folk crafts": TD-A. 536 / type. – Approval date 04.02.2015. – Minsk: Ministry of education of the Republic of Belarus: Educational and methodical Association for pedagogical education, 2015. – 11 p.

## **ANALYSIS OF A TRANSPORT STOP DESIGNED IN THE FRAMEWORK OF THE INTENSIVE "UNOVIS. NEW UTOPIA"**

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The synthetic nature of the formation of the transport environment relates it to special, medium forms of design, which in all cases affect almost all sectors of society, secondly, the design and means of all types of design are the same in a single object - environmental, industrial, graphic (corporate identity), and also the same landscape, engineering and architectural [1].

Transport stop is an integral part of the daily life of citizens, performing a lot of functions. The appearance of the stop is an aesthetic and functional accent of the urban environment, which determines the urgency of designing a harmonious and ergonomic stop.

The purpose of the study is to analyze the design of the stop being developed as part of the "Unovis. New Utopia."

**Material and methods.** The study is based on the analysis of educational projects of students of VSU named after P.M. Masherov specialty "Design", as

well as materials published in scientific and specialized literature. The main research methods are systematic approach to the research problem, comparative analysis and synthesis.

**Findings and their discussion.** The first stage of design work, that has the aim of transforming the problem into the principles of its solution, is a pre-project analysis. During the pre-project analysis, factors were studied that affect the ergonomic and functional design of stops. Depending on their location (urban-type settlement or regional city), they can be differ in capacities, differ in design, and made of different materials. At this stop come such modes of transport as buses, minibuses, trolleybuses. People can spend various times at stops from 1–2 to 25–30 minutes, waiting their transport. The climate of Belarus is temperate continental, which implies the presence of heavy rainfall, and wind, and the scorching sun. Bearing in mind the changing weather conditions, it is important to apply various methods of protection from the weather.

It is also important to consider the specifics of stop users and their goals. As the stop taken for improvement is located near the station, the majority of users are visitors from other cities and towns, guests from other countries. Therefore, it is necessary to keep in mind the linguistic and psychological aspect. A new unfamiliar place can cause stress and impede adaptation and spatial orientation.

In the course of the work, a survey of local residents was conducted in order to study the current state of existing models of stops through a survey. As a result of the interview, the following facts became known. The main complaints are the lack of a good opaque roof and walls, which will protect against bad weather conditions while waiting for transport. It was pointed out that the benches were not comfortable for sitting enough, due to the lack of a backrest for the seats and taking into account people different in constitution. And also not ergonomic placement of the electronic schedule is noticed, which is located too high.

Keeping in mind these shortcomings, the wishes and portability of users include an opaque roof, large side walls, comfortable benches with a backrest suitable for both short and tall people, an electronic schedule at eye level.

Based on the pre-project analysis, the concept of stop was developed that taking into account the opinion and needs of people and modern technologies. At the heart of a figurative solution are the ideas of Suprematism. The stop, made in the style of minimalism, has simple concise forms, light colors. Orange was used as an accent color, as a color symbolizing continuous movement, as well as shades of orange are an excellent antidepressant.

The main functional and technological moment was the integration of an electronic tablet, in which a city map, timetable and arrival time of the transport, route and weather forecast for the next hour were placed simply and conveniently for use. The aesthetic solution of the tablet fits harmoniously into the plastic of the stop, being a constructive and semantic dominant of the stop complex.

A bench back was also added that meets the wishes of residents, made of practical material in accordance with aesthetic requirements.



It was decided to add a second side wall to protect against rain and wind. But in order not to disturb, not to burden the image of a light, dynamic form, the side wall was made of plexiglass.

**Conclusion.** The result of this work was the “STOP” project, which took into account the shortcomings of existing stops, wishes of users, and based on the principles of ergonomic and functional design, an aesthetically attractive and multi-functional stop was developed.

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## FIGURATIVE FORMS IN ARCHITECTURAL BIONICS

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VSU named after P.M. Masherov, Vitebsk, Belarus

Tracing the entire history of human development, we see that man changed externally and internally, and as far as possible went from the origins of wildlife, changing the natural habitat to artificial. Considering himself a Creator, he is fenced off from the environment by all sorts of buildings, erects walls of concrete, designs high-rises and glass skyscrapers. But no matter how hard man tried, in the construction, he still had to take as a basis natural structures and forms.

“Bionics is the science of using knowledge about structures and forms, principles and technological processes of wildlife in engineering and construction” [1].

One of the branches of bionics is architectural bionics – it is a kind of innovative style that takes all the best from nature: forms, contours, structure, relief, explores the principles of shapes, as well as the interaction of architecture and the world around us.

On the basis of examples of various forms and formations of architecture and analysis of the use of the structure of natural material, it is necessary to investigate biological systems and underlying principles, as well as to check whether such solutions can be applied in the creation of architectural structures.

The purpose of this study is to determine the typology of the formation of the main natural forms used in architecture.

**Material and methods.** The source of the actual material for this study was the structure of famous architects from around the world, which were used in the creation of natural forms. Basically, the research method is descriptive based on the analysis and observation.

**Findings and their discussion.** Architectural bionics does not involve the complete copying of forms, but only the use of the principles and laws of formation in nature. Researchers A. Guillot and J. Meyer distinguish the following natural forms:

- cone-shaped designs;

- spiral designs;
- shells;
- prestressed designs;
- mesh, lattice and ribbed designs;
- space-lattice structures;
- dynamic architecture [2].

Let's take a closer look at each of the forms above:

- *cone-shaped designs*. Y. Lebedev classifies them into several types:

The first type is the cone of stability, it can be seen in the plant world of plants (plant stems, trunks and crowns of trees) – the base down [1]. A striking manifestation of this type is noted in the design of the giant cone of the Cathedral of the blessed virgin Mary in Maringa by the architect Jose Augusto Bellucci;

The second type of cone – the desire to grow, from "one point", up, out into space – the dynamic shape of the cone. In architecture, this principle underlies the shaping of the Midrand Water Tower, in South Africa;

The third type-the "Struggle" of two cones – growth and stability-is manifested, for example, in the crowns of trees, which can be seen on the example of the monument to Christopher Columbus in San Domingo [3]. As a result in organic nature on the basis of a combination of two cones there are various forms;

- *spiral designs*. Spiral is a kind of form of movement, growth. The spiral surface of the building is better adapted to overcome wind loads-the wind seems to slide along its convolutions, reducing the full power of the impact on the structure of the structure. This type of construction is often used in the construction of high – rise buildings and is actively used in modern architecture;

- *shells*. Vault – shell – shell – acts as an example of the gradual change of stress from compression to tension. In this case, the shape of the shell itself is a structure in the form of a vault. The structural form of the shell – shell type, complex surfaces called turbosomes, where are: (turbo – rotation, soma – body). The design principle formed the basis for the roof of the national hotel in Beijing, China.

- *prestressed designs*. Created by the system of shrouds – resistance of structures in shape, an example is an unusual and original Parking with a service center built on the territory of the Volkswagen Austostadt in Wolfsburg, Germany;

- *mesh, lattice and ribbed designs*. The basis of many designs is the voltage line. This is manifested in the structure of the thinnest leaf of any plant. The frame of such a structure is a network of veins, lattices, and stiffeners, which in turn form the ribs underlying this form. The rib vault is also called a fan vault. The system of ribs is mainly traced in Gothic architecture by the example of the vault of the Cathedral in Laon, France;

- *space-lattice structures*. The main task of which in nature – is to prevent damage to the structure due to accidental actions and loads. This organization of forms is widely used in the construction of frames and cranes. On this principle, and was designed (world – famous architectural structure) - the Eiffel tower.

• *dynamic architecture*. An example of which in nature is the feature of plants to respond to various changes: humidity, light, temperature. An example of this form is the architectural structure of the sports stadium on Prospekt Mira in Moscow.

**Conclusion.** Thus, it can be concluded that in modern architectural design, one of the main principles in the work of architects is the creation of "living architecture", where the building and structure is a "living organism". The most common buildings on the example of the use of shell type, mesh, lattice and ribbed structures. Here bionics is "content" with the fact that it does not use natural organisms directly, but only the principles of their "construction".

The process of shaping architectural bionics is both a fragmentation of the integrity of the object to the smallest elements of its structure, and, conversely, from the smallest particles, the possibility of creating a form for the construction of a new object of architecture.

Geometric forms, borrowed from nature, are the material for creating something new. From the taken natural forms, the architect is able to create a huge number of different combinations [4]. Each object, building has its own spatial structure and shape. And of course each object of modern architecture has its own structure and rhythmic organization. Today, bionics as a science can predict a great future. Here the scientists of tomorrow open a wide field for research in the field of architectural forms.

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2. Bionics. When science imitates nature / A. Guillot, J. Meyer. – Moscow: Technosphere, 2013. – 280 p.
3. Architectural bionics / Y. Lebedev. – Moscow: Stroyizdat Press, 2005. – 269 p.
4. Architectural shaping and geometry / OTV. ed. – Moscow: LENAND, 2010. – 248 p.

## **FORMATION OF GAME COMPLEXES FOR CHILDREN IN PUBLIC SPACES**

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A shopping complex is a place in which a person comes regularly and there may be a lot of time in his space. The most convenient day to visit the shopping center is a day off when parents spend time with their children and can go shopping together. The organization of a child's play area in the interior of a supermarket will help solve the problem of a child's occupation at a time when adults choose goods. Designing facilities for children's use, especially in an environment of active social processes, places high demands on design. Therefore, this topic is subject to in-depth research.

The purpose of the study is to identify the features of the formation of game complexes for children in public buildings by the example of large shopping centers.

**Material and methods.** The research materials are electronic resources in the form of articles, photographs on this topic. Research methods are: descriptive-analytical, comparative.

**Findings and their discussion.** Public buildings and structures - environmental facilities and systems designed for administrative, business and cultural-educational activities. The typology of public buildings includes complexes of various purposes: stadiums, museums, theaters, shopping and business centers, administrative buildings, institutes, etc.

The growth of public welfare, innovations in architecture, technology and design, created a platform for the creation of new objects of a social scale. Most of the new forms appeared as a combination of the above types of public buildings (amusement park, supermarket, university research complexes, etc.). Public buildings represent an entire ecosystem, and each component is necessary and important for a holistic picture of this object. The pace of development of all industries surrounding us is growing every year at a double pace, and the life of society and each individual is passing at a very fast pace, which requires the creation of a single place in which the main shopping and entertainment facilities will be assembled.



Figure 1. Contrasting color spots in the children's play complex of the shopping center.

A shopping center is a place for crowds of people with different interests and tastes. To create this object, architectural and design methods are used to create a comfortable environment for all people.

Consider the components of creating a children's zone in a shopping center. For the design of any room you need to understand for whom this object is being created. In this case, a project for children is created. The proper design of a children's zone in shopping malls for games is an important and difficult task. There are several components that you pay special attention to to create the perfect place for your child's leisure.

The family hangout area in shopping centers should be designed in accordance with ergonomic and environmental standards and taking into account modern aesthetics. They include the use of environmentally friendly, fire-resistant materials, the compliance of design solutions with age criteria, features and individual characteristics of the consumer in combination with an expressive artistic image.

The best option for shopping centers are universal children's sports and playgrounds, divided into specific sports and gaming areas. This is not mandatory in the creation of children's complexes, however, sports and playgrounds are the most comfortable and suitable for most children. When forming the gaming zone, it is necessary to take into account global trends or the mentality of the country. Modern trends tend to minimalism in all manifestations of public life. This is manifested in the choice of color, the design of the playground itself.

A shopping center involves a large number of people, which makes it necessary to review the playground. It should be as open as possible. A reliable and safe design is the basis of the design of any environment, but the children's area is a place of increased danger. The designer must calculate every step and take into account all the nuances of this site.

Do not underestimate the possibilities of color. The color palette can be varied, depending on the conditions of creation. The design of the children's play area can borrow the color scheme of the interior of the shopping complex, and can contrast with it if it does not violate the general harmony of space.

The opinion that children need to make a rich and contrasting environment is outdated. The best solution is to create soft, calm colors with contrasting elements in the construction of the site or to create a line of color with the movement if the site involves active movement.

The play area for children should be a compositionally integrated system within itself, and at the same time be in harmony with the overall style of the interior of the shopping center, be part of a connected system of objects, and its visual characteristics will strengthen its unity.

**Conclusion.** During the study, examples of children's game complexes in the interior of the shopping center were examined and the main features of their formation were identified. The design concept of the play area is formed taking into account the psychological characteristics of the child, on the principles of safety, ergonomics and environmental friendliness. The aesthetic qualities of the children's environment are also important, as they help to develop an artistic taste in a child at an early age.

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## “GREEN TECHNOLOGIES” IN THE ARCHITECTURAL-LANDSCAPE ORGANIZATION OF THE ENVIRONMENT

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Throughout history, mankind has been solving environmental problems. When a person led a collective lifestyle, he remained an organic component of nature, but the more rapidly humanity evolved, the more harm it did to the environment.

“Green technologies” are focused on preserving the surrounding nature, as well as improving the quality of human life. They imply the efficient use of natural resources and the use of environmentally friendly materials that have minimal environmental impact over the entire life cycle, from the production process to disposal. At the moment, the term "green" is a synonym for the word "environmental", which is reflected in all scientific spheres of mankind. Separate areas of engineering highlighted eco-design, eco-architecture and eco-construction [1].

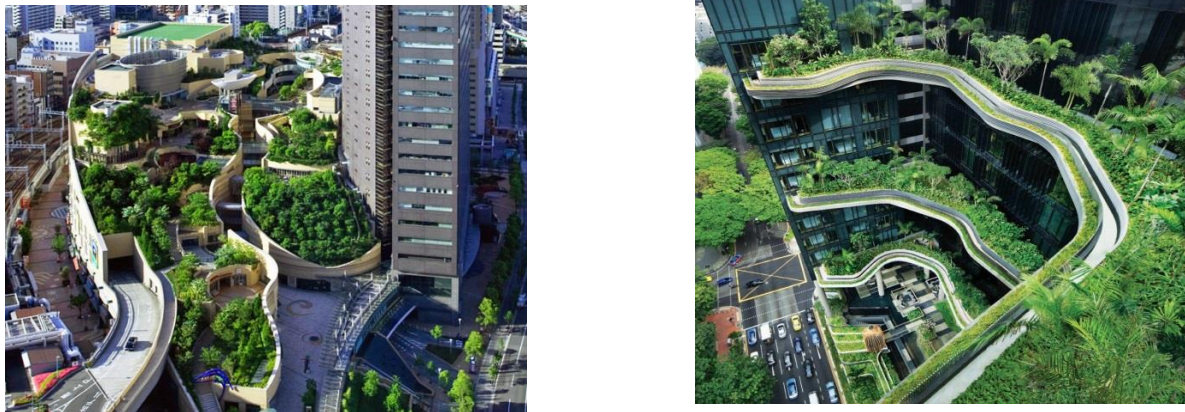
The purpose of the study is to consider the possibility of using "green technologies" as an environmental organization in order to improve the environmental situation in cities with dense point development, which allow transforming the appearance of the city.

**Material and methods.** The main base material for this work was the design projects of foreign landscape designers and 4-5 year students of the specialty design (interiors of offices, banks, cafes and clubs) and materials from online sources related to environmental problems. The methodology of this study is based on a comparative, comparative and systematic approach to the study process.

**Findings and their discussion.** The emergence of eco-design is associated with the problems of environmental pollution on a global scale. Standard urban development and everyday objects were devoid of individuality, and man-made materials of unknown origin began to cause dissatisfaction with consumers over time. In time, this coincided with a rethinking of the role of man in the world, and on the wave of a new, “green” philosophy, a new attitude to production appeared: the main principle was “harmony with nature”.

The appearance of the terms “green roofs” (Pic. 1) and “green facades” (Pic. 2) in world practice helped to combine the building with the environment, allowed landscape architects, engineers and builders to organize competent work to improve the quality of life in the city by increasing the excess the number of green areas, reducing the total noise impact [2]. "Green roofs" - partial or complete filling of the roof space with green spaces. These can be plants in containers that can be easily replaced and create new compositions, as well as flower beds planted in the ground or a lawn where you can take sunbathing without leaving your home. The presence of green roofs in foreign countries has

a great influence on the pollutant content in the air, namely a 5-10% decrease in nitric oxide and sulfur dioxide over green roofs in Toronto (2003), a decrease in sulfur dioxide by 37% and carbon monoxide by 21% in Singapore [1].



Picture 1 Urban Environment

“Green facades” is another of the design decisions aimed at increasing the number of green spaces in the environment of the building by placing them on the facades. “Living walls” differ significantly from vertical gardens in that ground cover plants are certainly planted in soil fixed to the walls. This method is suitable for low buildings and is more time-consuming, since it requires more careful selection of plants and the need for timely cutting.



Picture 2 Blooming building façade



Picture 3 Built-in Home Example

If we recall and analyze the design of the dugouts, we can conclude that in such a building the microclimate in any season of the year is much more comfortable than in an overground building. A similar technique is applicable in modern construction, namely geoplastics, which involves the use of terrain for the purpose of its architectural transformation. With this method, some part of the original landscape is intentionally left untouched: the building is “inscribed”

in the existing natural form (hill or hollow) instead of leveling the ground with excavators or filling the lowlands with imported soil (Pic. 3).

This approach provides users with the opportunity to feel inside the ecosystem, moreover, a more comfortable air temperature will remain inside such a building, which will lead to lower energy costs.

The least costly way to improve the environmental situation is to expand the bicycle infrastructure, which has a lot of positive aspects: environmental friendliness and promotion of sports; reduction in the number of car parks; take up little space; attractive appearance [2].

**Conclusion.** World practice has shown that architects and designers in their projects are increasingly using green technologies that can improve the environmental situation in residential premises and in the cities themselves.

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## DESIGN FEATURES OF CULTURAL CREATIVE ENVIRONMENT

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New trends in the organization of environment of cultural and entertainment institutions are associated with current socio-economic, information and technological conditions. The urgent task is the organization of space, which will allow to make interaction between people and the environment, to change the space depending on new tasks. Mobile constructions for the exposition, complex lighting systems and audiovisual equipment, stylistically neutral space are the basis of modern cultural environment.

The result of thinking about the problem of developing the creative potential of the city is the formation of creative clusters, which are spaces of concentration of creative people and organizations that develop and demonstrate their ideas actively, are able to ensure the production process, promotion and delivery of products of creative work.

The aim of this work is to analyze the environment of creative clusters of the world and Belarussian clusters in particular.

**Material and methods.** Theoretical science sources and graphic images and foto were used as a material for the study. The following methods were used in the work: general scientific methods, such as theoretical comparative analysis, classification, synthesis; a retrospective analysis; grapho-analytical methods.



**Findings and their discussion.** The practice of transforming non-functioning industrial zones into spaces for creative activity originates in the 1940s in the USA (New York, Manhattan), when the low rental cost of vacant production facilities located in the city center has made it possible for artists to equip them to their needs.

The DUMBO district in northwestern Brooklyn, New York, USA was one of the first places where the trend was set to change the look of old industrial zones around the world. In the 1970s, young artists began to move in the district and rent large-sized and affordable lofts and basements for their studios. Soon, the district turned into a creative cluster with many galleries, studios, exhibition halls, start-up offices, coworking spaces [1].

The style of these spaces was called “loft”, it consists of industrial features which are reflected in rough decoration, open communications, an open space deprived of capital partitions. In such interior, industrial details become vivid accents, and also can adapt to new functions. Of course, fashion and technology make their additions to the industrial look of the environment. The spaces are filled with original art objects, elements of furniture and equipment, made with the newest design. The contrast of the old industrial environment is a great background for modern design and art objects.

Artzone 798 in Beijing originates in 1995, when the Beijing Academy of Fine Arts settled in the largest part of the United Factory complex number 718, designed by German architects in 1957. As in New York, the factory building attracted with large areas and low rental costs. The plant was designed in the style of functionalism, the Bauhaus style is read in appearance. Toothed roofs of buildings became the result of the idea to maximize the use of natural light. Roof windows face north, which provides stable lighting throughout the day. The interior spaces are minimalistic, filled with light. The rhythm of open structural bearing elements sets the space depth, fundamentality and infinity. The exposed surface of the walls, floor, ceiling, devoid of decorativeness, emphasizes the expressiveness of the exhibits. Many halls are completely white, the geometry of the room is emphasized by the placement of lighting equipment, or floor graphics, or a light shade spreading from window openings into the entire wall fills the space. But in some rooms the borders are erased and it seems that art objects are in unlimited space using the effect of weightlessness.

Since 2007, in the center of the city on five floors of the industrial building of the former Smolninsky bakery, a multifunctional art space Loft project FLOORS has been located in St. Petersburg. It combines galleries of modern art, exhibition halls, a hostel, a coffee shop, shops, a view roof and a bar. One of the distinctive features of this environment is that it was not formed under the influence of socio-economic reasons, but purposefully, with orientation on world experience in revitalizing industrial zones and forming cultural hubs. The design project was developed by architects Br. Arkhipenko. Elements of the original space have been saved and preserved in the interiors of FLOORS:

concrete columns edged with metal, equipment for baking bread, drains for flour, boiler pipes, a cast-iron floor. Additionally, antique and designer furniture is installed, glass windows are mounted in the floor, on some floors the space is divided by podiums. The bold use of bright colors in the environment gives a modern look to industrial elements.

Examples of creating art spaces in Belarus are cultural hub named OK16, which occupies the three buildings of the MZOR plant on Oktyabrskaya Street; “Art-syadziba”, “KORPUS 6”, “KORPUS”, “TOP”, located on the territory of the factory “Horizon” in Minsk, the premises of which are rented for the purpose of conducting creative activities. A common technique for entering buildings of this type into an urban environment is contrast. It is achieved with the help of bright dynamic murals on old facades that distinguish buildings and fill the urban environment with modern sound. It seems organic is using of industrial style in the interiors of cultural centers located in industrial buildings. However, the image of the environment is rarely based on one style, including stylistically diverse elements combined on the principle of polyphony, contrast, organizing the game of cultural and historical codes, quotes, parodies.

The environment of cultural centers of this kind is multifunctional and mobile. Flexible or free planning structure, transformable elements allow changing the functional purpose of individual zones depending on the situation. The subject content of the environment is connected with the theme and tasks of the organizers of cultural events. Aesthetic understanding of the interior space is filled with psychologism, involving a person in experiencing an atmosphere corresponding to the concept of a place or cultural event.

Also, the historical environment of the city and architectural monuments serve as the location of modern cultural centers. So Vitebsk creative center “Art Space” is located in the historical center of the city in a building originates in the late 18th century in the style of classicism. Its appearance corresponds to the general historical image of the street and stands out from a number of other buildings with a red square sign and a composition on the side facade in the spirit of Suprematism. An internal environment of the art center is contrast with the overall appearance. The ascetic and even decrepit atmosphere, combined with exhibits made of old household utensils, outdated non-functioning equipment, musical instruments, is perceived as a challenge to the “gloss culture”. In the design of the environment, you can see the proximity to the direction of arte povera. The search for beauty and harmony in simple modest objects reflects respect for nature, attention to the problems of overconsumption.

**Conclusion.** Thus, in the organization of the environment of creative clusters around the world, we can notice such similar features as:

- placement in industrial premises and preservation of their architectural industrial features in the environment;
- ascetic brutal decoration, if possible preserving its original appearance (at least fragmentary);



- the use of large open spaces filled with natural light;
- efficient use of lighting equipment;
- entry into the environment according to the principle of contrast, which is achieved by using murals on the facades and elements of street art.

The design of the environment of art spaces is distinguished by the degree of loading with objects of modern design: from complete minimalism, when the environment likes clean canvas on which exhibits and cultural events are held, to an eclectic one, filled with various stylistic elements, modern characteristic design details.

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## LEONARDO DA VINCI: THE MYSTERY OF GOLDEN RATIO

**Ruslana Rogovskaya**

Polotsk college VSU named after P.M. Masherov, Polotsk, Belarus

To my mind, every person connected with art, architecture, design, science or even teaching should know about this mysterious rule. As for teaching, you can use this rule for the school board, the handouts etc. Moreover, Golden Ratio has been used to design and build many architectural structures, to create music.

The hypothesis of our work is: We can use the Golden Ratio in our present-day life [4].

The aim of the research is to determine the nature of Golden Ratio and identify the influence on the Leonardo da Vinci's creative work.

**Material and methods.** Our research is based on Polotsk college VSU named after P.M. Masherov and Vitebsk State Technological University. In the research we used such methods as theoretical, historical, empirical and descriptive.

**Findings and their discussion.** For the purpose of this work, the term Golden Ratio will be taken to mean a special number found by dividing a line into two parts so that the longer part divided by the smaller part is also equal to the whole length divided by the longer part. It is often symbolized using phi, after the 21st letter of the Greek alphabet. In an equation form, it looks like this:

$$a/b = (a+b)/a = 1.6180339887498948420 \dots [2]$$

During this research we became interested in forms of using the Golden Ratio. Especially about using the Golden Ratio in interior design. We made a research about interior design rules based on Golden Ratio and told about it to students with the help of presentation. To prove practical prominence of the Golden Ratio in interior design students were given empty paper rooms and different paper furniture. They were to create harmonious design according to the Golden Ratio. That event helped me and students to realize that the Golden

Ratio can be easily used practically in our modern life. It was absorbing and useful for us [1].

The topic of our research is “Leonardo Da Vinci: the mystery of Golden Ratio”. That’s why we've made a questionnaire to study whether people are informed about such term as "Golden Ratio " in general and where it was used. For the questionnaire we chose 3 category of interviewees: students of our college, students training at department “Design”, VSU and teachers of our college. One hundred and fifty people were asked, according to their answers we analyzed and summarized information.

Results show us that 53% students of our college, 100% students training at department “Design” are informed about the Golden Ratio, 71% teachers are informed too.

69% students training at department “Design”, 9% students of our college and 42% teachers use the Golden Ratio in practice.

92% students training at department “Design”, 31% students of our college and 42% teachers knew that the Golden Ratio was used to build Notre Dame de Paris Cathedral and Pyramids.

84% students training at department “Design”, 40% students of our college and 71% teachers knew that the Golden Ratio was used to create such masterpieces as the Last supper and Mona Lisa.

100% students training at department “Design”, 90% students of our college and 86% teachers chose the Google’s logo in which the Golden Ratio is observed [3].

Further, interviewees were asked to guess how to use the Golden Ratio for teaching.

Answers proved that the using of the Golden Ratio influences on our perception and makes us to choose the logo which is created with the help of the Golden Ratio.

**Conclusion.** Obviously, the Golden Ratio is one of the most mysterious things which are hidden in seeds, flowers, friend`s faces, DNA, in worldwide known art masterpieces, architecture, music and even in google and other logos etc. And if we learn more about the Golden Ratio and find out how to apply it in different spheres of our life, including teaching, we`ll archive better results and do it faster [5].

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## WEB DESIGN ANIMATION

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VSU named after P.M. Masherov, Vitebsk, Belarus

It is currently difficult to imagine life without a network. A person finds most of the necessary information on the Internet, an important role is played by virtual communication in social networks, the exchange of experience through blogs, forums, and interest sites. Some of the everyday household tasks are also taken over by the Internet, for example, making purchases in online stores, making an appointment with a doctor through the clinic's website. In this regard, there is a problem of aesthetic and functional organization of the Internet space. This problem is solved by means of web design, and animation is one of the most effective.

The purpose of the study is to identify the features of animation in web design.

**Material and methods.** The research materials are websites on the Internet, mobile applications, electronic articles on animation in web design. Research methods are: system-structural analysis, comparative analysis, observation, description.

**Findings and their discussion.** A virtual space containing a huge amount of heterogeneous information needs to be streamlined in the same way as the real one. The competent organization of the Internet space is engaged in such a sphere of communicative design as web design.

Web design is the process of creating user interfaces for Internet sites and mobile applications, taking into account their functional and aesthetic side, as well as the result of this process. At the same time, the structure of the web page and the hierarchy of the content are built in accordance with the logic of the information. In modern web design, there is a clear tendency to create a project on the principles of ergonomics, taking into account the features of user behavior, intuitively clear in interaction.

There are many expressive tools in the arsenal of a web designer. Classical, traditional – color, compositional techniques, and relatively new to use - animation.

Computer animation in the broad sense is the effect of sequential multimedia endowment of the image with motion functions.

The history of animation in web design began in the 1980s with the advent of moving images in the Gif format, which were placed on the site with the aim of “animating” the web space and adding dynamics. Later, Flash multimedia technology appeared, which has more features related to color, sound, thanks to which the animation has become interactive. The developers were able to create entire cartoons on the sites, which sometimes created visual overload and slowed down the page. At that time, animation was not considered a means of improving the usability of the site and was added only for decoration [1].

However, animation, like any other element in web design, should be used for a specific purpose and perform some useful function. Functional animation usually refers to subtle interactive animations of the user interface. It usually does not carry an independent semantic load, and is only a link in the user's interaction with the site. Appropriate web animation helps in the work, draws attention to important details, reports on some page states.

Animation effects can be used, for example, to show the user what elements on the site you can work with. When hovering, the button may be highlighted, or change color. Also, with the help of animation, you can show that the operation necessary for the user has been completed. For example, an animation of an envelope when sending a letter to a mail site.

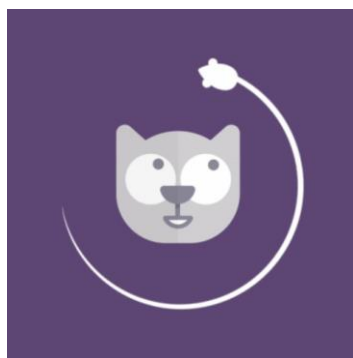


Figure 1. Cat watching a mouse running in a circle – an entertaining moment in the wait animation

Using animation, you can show the process of loading the page, so the user will understand that something is happening on the page and you need to wait. Classical loading animation - elements appearing alternately in a circle, or a line running in a circle. Adding an entertaining moment to the animation will not let the user get bored while waiting (Figure 1).

The use of animation to draw attention to certain

elements of the site is justified. For example, to notify of an error when entering data, login or password, sometimes they use the effect of jittering the data entry form like a negative head-shake, so that the user understands that something is going wrong [2]. Animated effects are also warranted to indicate the completion of a desired action. An example is the animation on Pinterest.com in the form of an appearing circle inviting you to click on the link for more information.

Smooth animation of transitions between page states is possible, since smooth scrolling, soft content changes are more pleasing to the eye and easier to perceive.

There is such a technique as storytelling through animation. When scrolling down the page, step-by-step animation of images and text is activated in order to talk about the product to which the site is dedicated.

Any animation on the site should attract to be moderate in terms of catchiness and time. This is especially true of the elements with which the user works most often.

**Conclusion.** During the study, information resources on the topic of animation in web design were studied, examples of websites were considered. We can conclude that animation is not just a decorative and entertaining element of the site. It is part of a connected functioning system, organically inscribed in it by a part, also bearing a certain function. The use of animation on web pages should have a clearly defined goal, and increase the efficiency of using the site.

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## IMMERSIVE 3D VISUALIZATION IN REAL TIME

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In the process of design design, the result of the work is the presentation of the project to the customer. In the period of fierce competition in the labor market, the competitive advantage is the implementation of the project submission in the most effective way. Epic Games in 2019 announced the acquisition of Twinmotion, a software package for high-quality visualization of the interior and exterior in real time, positioning it as a simple and intuitive visualizer based on the Unreal Engine 4 engine as a technical base [1]. However, until November 2019, Twinmotion was distributed free of charge. According to the company, this package allows you to create high-quality animation of a 3-dimensional environment, which, unlike the static representation of the project, has several advantages.

The purpose of the study is to test this product as part of the educational process by identifying its strengths and weaknesses, for further possible implementation in the educational process in the framework of the discipline "Animation in Design"

**Material and methods.** The material of the study was the educational and creative work of 5th year students of the art and graphic faculty of the design department of Vitebsk State University named after P.M. Masherova. The method of continuous polling and the method of analogies are used.

**Finding sand the discussion.** Unlike traditional animation programs, the Twinmotion architectural visualization program is built on the Unreal Engine, which is traditionally used in the gaming industry [2]. That raised a number of questions about the possibility of implementation in the educational process, since there was no work experience for students with this approach to visualization architecture. Previously, the entire animation creation process took place in the 3ds max package. This package of 3D modeling is the main one in the preparation of young specialists of the department, but it is the process of creating animation that creates a number of difficulties. Namely: the difficulty of adjusting the process of the camera's flight over the stage, adjusting the camera's parameters, adjusting the visualizer, the long animation time, the inability to view the animation in real time,



high requirements for the system unit parameters. As a result of this, the final animation in 3ds max often turned out to be of poor quality, and the lack of time allotted for discipline did not allow repeating the process.

Given all of the above, the animation of the virtual object itself was no more than 4 seconds, taking into account the frame rate of 25 per second.

Under the circumstances, the pilot implementation of the Twinmotion package within the discipline seemed justified.

In the process of studying the package, the following shortcomings were identified: when transferring an already simulated scene from 3ds max to Twinmotion, texture maps were lost (since they were created in the Corona render visualizer), the transfer takes place only in FBX format (which causes difficulties for some students) [3].

The advantages of the program include: an intuitive interface, the most reduced number of material settings, the ability to view visualization in real time, the ability to customize the viewing window for the system capabilities of the computer, a large set of related objects for a more realistic image, the presence of animated objects (characters, animals, etc.). e.), quick scene setup, setting an object by location, creating natural factors and time of day (fig. 1).



Fig. 1 Example of work in the visualizer Twinmotion

As a result of work in the architectural visualizer, it was noted: students easily mastered the program interface and quickly became involved in the project, the average duration of dynamic animation of a virtual object increased to 28 seconds. (700%), the quality of the animation has increased.

In general, students positively characterized the process of introducing Twinmotion into the educational process. Some of the difficulties of transferring

a model from one software package to another can be attributed to the comments.

**Conclusion.** In the process of this study, we can conclude that the Twinmotion software package deserves attention because of its low demands on the capabilities of the system unit and ease of study. Achieving the positive result indicates the possibility of introducing the Twinmotion program in the educational process within the framework of the discipline "Animation in Design".

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## **MODERNIZATION PROJECT OF PUBLIC TRANSPORT STOP, PERFORMED IN THE FRAMEWORK OF A WORKSHOP WITH MARTIN FOESSLEIGHTNER**

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In today's world, when everyone can provide themselves with everything for a comfortable life, people's needs are growing. The market of the design industry is actively developing, adapting to new trends. Each company tries to improve not only the functionality and quality of the product, but also its appearance. In a dense stream of various information and advertising, consumers become more selective, more and more based on their choice of the appearance of the product. This situation is more relevant for industrial design objects.

However, some areas of this industry are still not developing so actively, for example, the sphere of public transport infrastructure, of which stops are an indispensable part. Quite recently, bus stops of an updated form appeared in the city of Vitebsk. News portal "People's News of Vitebsk" reports: "The design of the stops is made of a metal profile of various sections, and the roof and side screens are made of tempered glass" [1]. The issue of their compliance with modern requirements has become one of the main topics of the workshop under the guidance of Austrian designer Martin Foessleitner, which was held on October 24-25 at the P. M. Masherov Vitebsk State University. Within the framework of this intensiveness, Martin Foessleitner shared the features of the

teaching methodology in the field of information design, the essence of which was a thorough study of the environment of the object and the factors influencing it. The relevance of the topic is due to the increasing attention to the external appearance of urban environmental objects and the requirements for them.

**1. Predesign analysis.** In order to find out if the current model of the bus stop meets the modern requirements of people, a survey was carried out on the streets of Vitebsk. The answers of the people were quite critical: “The roof is very small and does not save from rain,” “There are not enough seats, it is uncomfortable to sit on them,” “There is no map of the city with transport routes, and the transport schedule is not at the level of human sight.”

Based on the answers of people during the interview, we decided to improve the design of the roof. Also, the area of our tasks included the modernization of other parts of the stop, depending on the roof structure.

The purpose of the work is to analyze the effectiveness of M. Foessleitner’s author’s methodology in designing by the example of processing the existing bus stop model for the city of Vitebsk.

**2. Design installation (design concept and design scenario).** Martin Foessleitner’s methodology is based on the following stages: research, design process and testing. At the research stage, a survey of users of public transport stops was conducted, the environment of the object was studied. As a result of this, the design concept of the project was formulated, which is based on two principles: energy production and a weather response system.

To provide electric energy, we proposed installing solar panels on the roof of the stop, which will allow you to build in the interior lighting, a luminous time board, a city map and other information, as well as sockets for recharging phones. At the same time, the stop itself could provide all these systems with electricity. A weather response system would mean transmitting weather data using wi-fi. As rain approaches, for example, the stop will automatically transform, increasing the roof area.

**3. Design decision.** After completing the research phase, we decided which elements we will implement at the stop and started the design process. This stage provided for a morphological analysis of the designed elements of the object, as a result of which the final version was approved. Among the proposed solutions, the most interesting was the one that included solar panels, interior lighting, a luminous display with information, sockets and a retractable roof element. Solar panels are the main structural feature of the roof, the work of many elements of a future stop depends on the energy it produces. Interior lighting will provide a comfortable stay at a stop in the dark. A bulletin board informs about the time, weather and routes of approaching vehicles. Outlets will allow you to charge mobile devices, tablets and PCs while a person is waiting for transport. A sliding element at the top of the stop made of tempered glass can increase the area of the roof, which is not enough for people in the rain.

We showed all these changes in the layout (Figure 1) and the graphic image (Figure 2).

PAPER MODEL

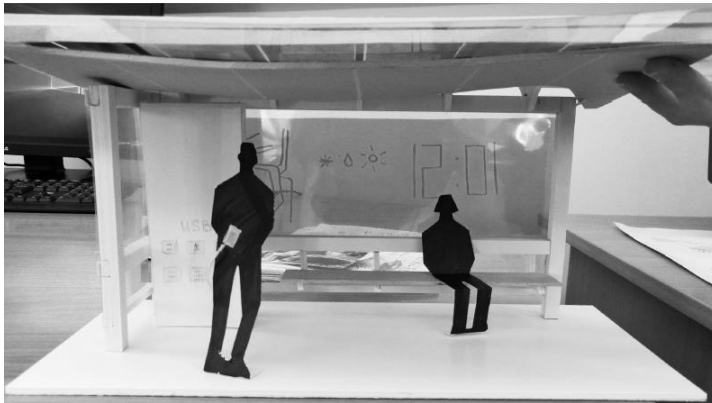


Figure 1 – Paper model

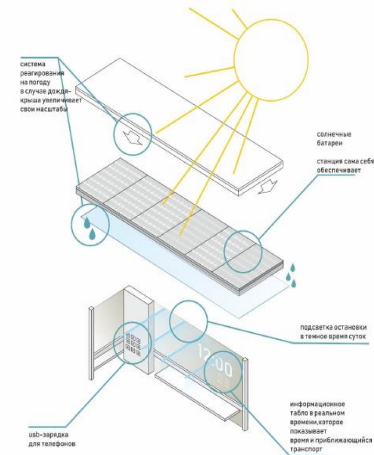


Figure 2 - Graphic drawing

Then exits the testing phase, which involves re-interviewing people. Design changes were accepted by people positively, only the future safety of such a stop from vandal saroused concern.

As a result of the workshop, under the leadership of Martin Foessleitner, not only the stop project was created, but also the degree of importance of public opinion in the process of design design was demonstrated (Figure 3).



Figure 3 – Workshop participants

**Conclusion.** The result of this work is the project of an improved public transport stop. The practical value of this work lies in the possibility of using this project as a future model of a bus stop, since all the changes made are based on the requests of people and correspond to their needs.

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## UX DUE TO THE CURRENT POTENTIAL USERS REQUIREMENTS AND THE WAYS TO INCREASE THEIR NUMBER

**Katsiaryna Tsarenko**

VSU named after P.M. Masherov, Vitesk, Belarus

The Internet is the biggest disruptive force since the telephone, television, transistor and the birth control pill combined. Others say the printing press, and some researchers compared the Internet to the invention of alphabet [1].

With each passing day, the digital landscape is getting crowded. The competition to stand out and attract the audience is now stronger than ever.

A website is a powerful tool which can be used to implement a wide array of marketing to grow a business. The design of a website itself is a crucial element in establishing trust since 94% of users do not trust poorly designed ones and leave without taking action [1]. This decision is made quite quickly; in fact, researchers claim it takes 50 milliseconds to make an impression once on a website [1]. Websites with low visual complexity (the simpler, the better) and high prototypicality (how representative a design looks for a certain category) are more likely to be perceived as appealing design [1]. Everyday consumers use the Internet to purchase goods and services, gather product information or even browse for entertainment.

By adopting psychology based design tactics, website owners can provide an engaging experience for their users [2]. A website should accurately depict its products to encourage mental interaction from their visitors.

The aims of the of the current study are to observe the range of European researchers at the field of web-design psychology and give the list of its composition tools and supplements.

**Material and method.** The material and method of research were the latest publications such as books, TED talks conference publications referring to the field of modern web-design principles. The theoretical study method was chosen as the major one.( analysis and synthesis). The method of empirical research was taken and studied thought the science and research experience of modern authors and CEO of the largest internet companies such as Google Ink.

**Findings and their discussion.** With information available at a click and people getting more and more relentless, one requires something more than just a good web-design. There are few basic psychological web-designing principles that, if understood, will go a long way in building trust factor with web-site visitors.

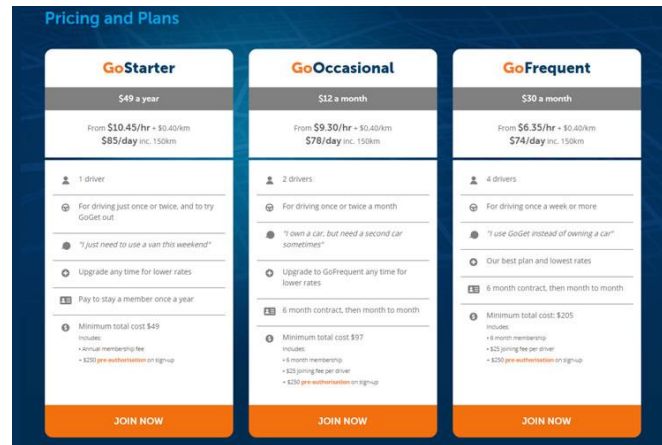
*According to the words of TED talks speaker Margaret Gould Stewart, UX master of Facebook: when you're designing at scale, there's no such thing as a small detail. The innocent little button is seen on average 22 billion times a day and on over 7.5 million websites. It's one of the single most viewed design elements ever created. Now that's a lot of pressure for a little button and the designer behind it, but with these kinds of products, you need to get even the tiny things right [3].*



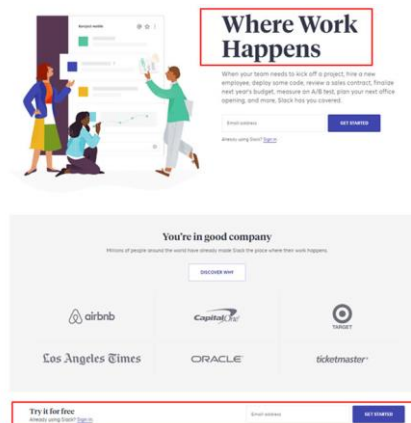
*When you're working on products like this, you have incredible amounts of information about how people are using your product that you can then use to influence your design decisions, but it's not just as simple as following the numbers.*

So the question is: What is the perfect formula that not only engages customers but also drives them to visit again?

1. The serial position effect, a term coined by Herman Ebbinghaus, describes how the position of an item in a sequence affects recall accuracy. The primacy effect states that users tend to recall first items with greater accuracy due to the small amount of processing effort spent rehearsing the item.



2. Optimise page content. When it comes to designing a landing page, order the content based on the serial position concept. That means devoting the first section of your page to the key idea – usually a business benefit – and ending with a call to action (CTA).



3. Emphasise the items you want to sell first. With the Von Restorff effect in place, you can draw user attention to particular items: the most expensive, bestselling, or new ones.



3. The paradox of choice. This is another effect set to control your clients' behaviour. Coined by psychologist Barry Schwartz, the choice paradox states that too many options usually lead to indecision and, as a result, to lower sales.

**Conclusion.** It is in developer's hands to make consumers buy a particular product and encourage them to visit your website over and over again. Depending on the site been developed, it can be used the tactics mentioned above.

Design psychology is the single most component that decides human interaction and website conversion rate. Considering that it is easy to implement, there's really no excuse why one must not learn basic web design psychology and benefit from it.

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## GAME ELEMENT DRINK LABEL DESIGN

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Currently, packaging has become an effective marketing tool. Well-designed packages have a certain value in terms of convenience in the eyes of consumers and in terms of product promotion in the eyes of the manufacturer. When developing the packaging concept, one should not forget about its

additional characteristics - size, shape, materials, color, text characterizing a particular drink.

Label – an integral part of the package, which can be a simple label attached to the product, or a carefully thought-out graphic design piece that is part of the package. The design of the label becomes prevailing, as the appearance is, in the understanding of the consumer, part of the offer. Therefore, the interaction of design and marketing is necessary, because it is impossible to sell goods without taking into account the requirements and wishes of customers.

The purpose of the study is to develop a design project for labels with game elements.

**Material and methods.** The source of the actual material for this study was the work of 3–4 year students of the specialties «Design» and «Fine Arts and Computer Graphics» of VSU named after P.M. Masherova, as well as materials and information published in scientific and methodological literature. To solve the set tasks, methods of structural and system analysis, synthesis and generalization were used.

**Findings and their discussion.** Man consumes various kinds drinks, this is water, juices, kvass, lemonade, etc., various enterprises produce them in packaging in the form of bottles, bags, cans, etc. These products are usually accompanied by a label that characterizes a particular type of drink. From a commercial point of view (marketing move), labels sometimes display messages about various kinds of promotions with prizes of a one-time nature.

However, in our opinion, it would be most successful to use any game elements on the labels, which are known to be very popular among the population of various age groups.

As an analysis of gaming activity has shown, all board games are usually divided into «dynamic» and «static». The first group includes - chess, checkers, dominoes, lotto, puzzles, suggesting movement on the surface of game elements. The second group includes crosswords, scanwords, etc. This group does not require any complex equipment, it is enough to have some writing instrument: pencil or ballpoint pen. These games are very popular among various age groups. So elderly people prefer solving various crosswords, crosswords, sudoku, etc. Pupils and students solve such crosswords improving their knowledge in various fields of history and science [1].

By designation, bottle labels are divided into 3 types: a front label that contains the name, logo and other key information about the drink; a shoulder label, which is usually located immediately above the main one; counter-label, which is located on the back of the bottle and contains information about the manufacturer and composition.

Types of labels: a two-layer label, a booklet label (for perfumes, for medicines), a coupon booklet label, a label with an insert, a label for promotions and draws, aromatic labels, booklet labels with inserts, a self-adhesive two-page

label with a valve, a multi-page label with printing, self-adhesive booklet label for cosmetics, sandwich labels, multi-level labels, accordion label, multi-sided labels, double labels (peel & read), offset accordion labels, adhesive labels mu layer.

Based on the foregoing, we developed a design project for two labels for the «Tarhun» drink. The first option is a sticker that is attached to the bottle from the back with respect to the label. The sticker shows the game labyrinth and anagram. The second option is a folded, multi-layer sticker label: on the front side is given full information about the nature of the drink, and on the inside there is a crossword puzzle. This label has the so-called "intrigue": what is inside, what kind of game task will be this time, will I get lucky or not? To do this, open and fold the folded label. To prevent self-unfolding, the folded label has an additional valve («tongue»), with adhesive applied to its inside.

**Conclusion.** As a result of the study, a typology and classification of labels were identified, as well as gaming activities taking into account three age groups, which allowed us to develop a design project for labels with game elements for «Tarhun» drinks.

The proposed approach to the development of a design project for labels can be used by students of VSU named after P.M. Masherov specialties «Design» and «Fine Arts and Computer Graphics» in the development of packaging for souvenir products.

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## **HISTORICAL, THEORETICAL, PRACTICAL AND METHODOLOGICAL ASPECTS OF TEACHING VISUAL ARTS**

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### **METHODS OF TEACHING APPLICATIONS MADE OF NATURAL MATERIAL IN GROUP ACTIVITIES WITH CHILDREN OF PRESCHOOL AGE**

**Irina Doroshenko**

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The circle is the center of children's creativity. It is in the circle that it is possible to take into account and maximally meet the individual needs of students, develop personality, cultivate a love of nature, art, and the creative process. The content of the work of the circle can be diverse, it is only important that it does not duplicate, but complements the relevant sections and topics of the program.

The purpose – to reveal methodical features of the organization of occupations on training to work with application from a natural material by a ratio of age and the maintenance of tasks.

**Material and methods.** The material of the study was the work of pupils of the GUO “Nursery-garden No. 92 of Vitebsk”. The methods used are: research, descriptive and generalization method.

**Findings and their discussion.** The natural material itself is a storeroom for fantasy and imagination. And if you combine it with sleight of hand, then everything can be revived, as if to give a second life. Circle classes are not just a labor process, but the creation of works of art with a deep semantic content.

It is necessary to strive to educate the delicate and sensitive soul of the child, so that he saw the unusual in the ordinary, the possible in the impossible.

The task is that children not only saw this workshop, and once entered it, no longer parted with it.

The classes were held with children of the INSTITUTION “Nursery-kindergarten No. 92 in Vitebsk”. The purpose of the lesson is to promote the realization of creative potential and to attract children to artistic activities by means of decorative and applied arts. Planning classes took place in accordance with the individual and age characteristics of pupils.

The work began with the collection of natural material. The campaign for natural material is not just a fascinating walk in which children go with the head of the crowd and thoughtlessly contemplate the surrounding nature. The excursion was prepared, its tasks, goals, route were clearly formulated.

During the collection of natural material encouraged children to look closely at the surrounding nature. There were constant questions: “what does it



look like? That reminds?" that can help give children a thought. Organized in this way, the collection of material allows children to actively perceive its shape, color, smells, develops children's curiosity, observation, love for their native nature.

After the material was collected, the application was started. In this lesson, we performed the application of the fairy tale by A. S. Pushkin " the Tale of the fisherman and the fish."

When presenting the material, presentations, riddles on the topic, visual material of the sequence of work were used. After analyzing the sequential implementation of the application, the students begin to perform practical work. With the help of a pencil, we outline the image of a fish. Then select and distribute the leaves on the cardboard. Carefully glue the leaves. At the end of the class, children were asked to close their eyes and make a wish.



Figure 1. Children's work

The method of working with children in the circle follows two basic principles: to develop individual creativity, inclinations of preschoolers, their imagination and imagination.

In the circle there are ample opportunities for the formation of creative skills of pupils by careful and comprehensive discussion of their applications. Children are children and therefore everyone wants his work to attract attention, to please others. Therefore, we must pay attention to each work and discuss it. This attention to the work of children is especially important and has great educational value.

The main source for children's stories is literature: fairy tales, poems, fables, stories. You can take stories from life.

It is possible to draw a conclusion: work with this material fascinated and interested children. Thus, a huge potential for the development of creative abilities of children has a circle work on the basis of natural material, as in these classes children develop creative imagination, imagination, fine motor skills, speech, thinking, memory, observation and other mental functions.

Among the forms of organization of classes with children were used such as creative workshops, competitions and exhibitions.

**Conclusion.** The study showed that the study of methods of working with natural material, making applications of natural material, captivates children,

develops their imagination, thinking, fine motor skills. With the help of this art technique, children can perform various Souvenirs, gifts, postcards.

This kind of art is relevant in working with children of preschool age.

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2. Koldina, D. N. Application with children 4-5 years. Notes of lessons / by D. N. Caldina. – Moscow: Mosaic-Synthesis, 2016. – 410 c.
3. Malysheva, A. N. Applique in kindergarten. To help educators and parents / A. N. Malysheva, N. V. Ermolaeva. - Moscow: Academy Of Development, Academy Holding, 2017. – 144 c.

## **HISTORY AND FEATURES OF THE CURATOR PROJECT ORGANIZATION “DAYS OF ART OF LATVIA IN VITEBSK”**

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For many years, the days of Latvian culture have been organized in Vitebsk with varying frequency on the eve of Independence Day of Latvia. Since 2007, “Days of Latvian Art in Vitebsk” have been implemented as a curatorial project of the Belarusian art critic and artist M. L. Tsybulsky. The exhibitions were organized with the support of the Consulate of the Republic of Latvia. In Vitebsk, at various exhibition venues of the city: in the Vitebsk Art Museum, the M. Shagal Museum, in the exhibition hall of VSU named after P. M. Masherov.

The purpose of this article is to analyze the peculiarities of the organization of the curatorial project “Days of Latvian Art in Vitebsk”, to introduce into scientific circulation the materials of exhibitions of Latvian art held in Vitebsk from 2016–2018.

**Material and methods.** The material for this article was curatorial exhibition projects that presented works of Latvian artists in Vitebsk, information about them in the press, conversations with the curator of the project and its participants. Methods used in this study: chronological, comparative, interviewing.

**Findings and their discussion.** Already at the stage of developing the concept of the project, searching for its name, the curator had to look for exposition spaces, select project participants, and artworks for the exposition. During the preparation of the projects, it was also necessary to deal with management issues, such as writing a press release, working with the media, finding sponsors, organizing an opening ceremony, being a critic and administrator. At the same time, the curator becomes not only the organizer of the exhibition, but also its peculiar playwright, director and expositionist. He participates in the formation of the artistic process together with the artist. The

purpose of such co-creation is to bring the viewer closer to comprehending the essence of the submitted works. “The most important task for itself as a curator,” -insisted M. Tsybulsky, “I always felt the need for articulation what he wanted to say in his works, the artist, and at the same time sought to present their views on one or another artistic material”. It was fundamentally important to determine the paradigm of the dialogue of the viewer with the artist. To varying degrees, this made it possible to express one’s position, to discover the meaning of one’s “intellectual presence” in each next exhibition. If possible, like each of the curators, I used my own principle of selecting works, the criteria for which could be different parameters. ”

In 2016, during the “Days of Latvian Culture” project, three exhibition projects were implemented: Personal exhibition of Riga artist Daiga Krūze’s “Pārvietošanās”. This exhibition of Daigi Kruse is dedicated to the celebration of the 98th anniversary of the proclamation of the Republic of Latvia and was held as part of the Days of Latvian Culture in Vitebsk. The physical power of Daiga Krūze’s painting echoes the rhythm of breathing in and out. Her ability to feel the tendency towards movement encoded in nature allows the painting to act as a reflection of the tempo of life itself. The exhibition of arts and crafts “By the Sea” was launched. The main theme of the exposition was chosen in order to emphasize the geographical location of Latvia near the Baltic Sea and to show that marine motifs occupied and still occupy a very important place in the work of many artists. The exhibition presented the best examples of Latvian textile art, metal art, ceramics and china. The exhibition "Groups of Artists of Jurmala" was presented. The works of several generations of Jurmala artists were presented at the Vitebsk Art Museum. The exhibition was attended by paintings, graphic works, ceramics, photographs and medal art. In this format, a group of artists from Jurmala appeared before Vitebsk for the first time.

In 2017, the project was even more saturated with the exhibition activities of Latvian artists. This acquaintance with the exposition of industrial landscapes of Andris Vitolins, with tapestries of the professional school of textile art in Latvia, with the heraldry of our neighbors presented by artists Juris Ivanovs and Ilze Lībiete, as well as with the graphics of the Latvian Academy of Arts. In this series, an exhibition of a young artist from Riga, Diana Janusone, opened at the Museum of Art. Solo exhibition “Unknown people” of Diāna Janušone. The artist presented textile and sculptural objects in which there is a response to the problems of modern society: the spread of terrorism, emigration and the related deterioration of the demographic situation in Latvia, instability in the world, etc.

In 2018, as part of the celebration of the 100th anniversary of the Republic of Latvia in Vitebsk in August-November, the “Days of Latvian Art in Vitebsk” were held, which included a large-scale series of events, among which were exhibitions of Latvian artists.

At the exhibition "100 Medals" by Janis Strupulis, were presented works from 1967-2016. The exhibition of the folk art studio "Dzilna" presented the

works of skilled craftswomen using forest, meadow and garden plants found in the nature of Latvia. The exhibition "Textiles in the Academy" students of the department of the Latvian Academy of Art textiles on display were collected and tapestries of first-year students, and undergraduate degree work in the widest with range those techniques and materials. The exposition of watercolors by Alexandra Shlyakhova, an exhibition of textile art by Ieva Krumeni, professor at the Latvian Academy of Arts. But the first of these events was an exhibition of artists from the city of Talsi called "The colours of Kurzeme".

In the exhibition The Colors of Kurzeme artists first of all, they wanted to show sources of inspiration - the landscape and the individual perception of the life of each participant in this place and time.

At the exhibition of textile art by Ieva Krumeni, viewers got acquainted with a variety of modern textile techniques based on folk art. The thematic range in the artist's textile compositions is extremely diverse. Herewith she gives greater preference to ethnic images, as well as the theme of oriental art. Alexandra Shlyakhova - professor at the Daugavpils University, who studied the art of painting and watercolors at the famous Vitebsk Faculty of Art and Graphic, presented the exhibition "Inspiration in Color". The main emphasis in the watercolors of Alexandra Shlyakhova is emphasized in the author's manner of lyrically expressive painting on the expressive sound of color. At the same time, the artist, in her works, seeks to preserve all the qualities of watercolors — freshness, transparency of the painting layer, natural transition from one color to another.

**Conclusion.** It is simply impossible to underestimate the role of curatorship as a special type of creative activity in the modern art process. The curatorship is organically integrated into the practice of many museums, including the Vitebsk Art Museum, in the exposition halls of which there were most of the exhibitions within the framework of the "Days of Latvian Art in Vitebsk" project curated by M. Tsybulsky, who is an associate professor of fine art at the Faculty of Fine Arts and Graphics in Vitebsk State University named after P. M. Masherova, as well as a candidate for art history. Within the framework of the project, thematic expositions from the collection of Latvian museums, prefabricated exhibitions of works by various authors, and personal exhibitions of Latvian artists were organized. Over the course of 2016-2018, 15 exhibition projects were organized. Since 2016, the "Days of Latvian Culture" have become saturated precisely with exhibition activities and every year the number of exhibitions, art projects, master classes has only increased. In turn, this allows one to go beyond the stereotypes in art, expand the horizons of Belarusian artists in techniques, in presenting works to the audience and inspire the creation of new masterpieces.

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## ETHNIC CULTURAL BOUNDARIES AND THE LOCALIZATION OF POLESIE REGION

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Polesie region is a historical, cultural and transboundary region located in Central and Eastern Europe. Depending on the subject of research, scientists define the territory of Polesie according to different principles: historians define on administrative and territorial (historical, political, and cultural), geographers define on natural and geographical zones, linguists define on dialects and ethnologists define on ethnographic criteria.

The main purpose of the work is to study and identify the ethnic cultural boundaries and localization of the Polesie as a historical and ethnographic region.

**Material and methods.** For research served as historical and archival materials and maps of museums and archives, art-historical, ethnographic, linguistic articles of scientists S. Basik [1], M. Glushko [2], E. Katonova [3], I. Chakvin [5], M. Moroz [5], proceedings of S. Makarchuk [4], B. Rybakov [6], V. Titov [7] and others researchers', who studied the Polesie region in the context of its historical development. In this research, the methods of theoretical, cultural-historical, art criticism and ethnographic analysis were used.

**Findings and their discussions.** The study of the localization and borders of the Polesie region is necessary for further and more detailed study of its culture and folk art. Polesie is mainly located in the south of Belarus (slightly less than 30% of the country) and the north of the Ukraine (about 19 % of the total territory), but also partially covers the territory of the Lublin Voivodeship of Poland and the Bryansk region, partly covers Orel and Kaluga regions of Russia. The basis of historical and ethnographic zoning of Polesie, according to M. Glushko, are genetically related and similar features inherent in the traditional and everyday culture of a certain ethnic group (ethnic subdivisions, ethnographic groups), formed due to the influence of different geographical, historical, socio-economic, internal and external cultural factors [2, p. 15].

Polesie as an administrative-territorial unit did not exist. The oldest mention of Polesie in the writings of the ancient Greek historian Herodotus (about 485–430 BC), as a wooded and swampy territory «Gilea» – «forest»,



«grove», looks like the name «Polesie», conditionally calling «Gilea the second» – located beyond Borysthenes (Dnieper) in the General area of the Pripyat River basin [6, p. 75-78]. S. Basik noted that in the work of A. Kirkor «Ethnographic view of the Vilna province» (1857) the need for the use of toponymic data for the restoration of ancient ethnic borders was indicated [1, p. 74]. E. Katonova noting that the toponym comes from the Baltic root «pol-/pal-» and reflects not so much «field» as «swamp» semantics [3, p. 213]. For the first time the toponym, Polesie is mentioned in the Galician-Volhynian chronicle (1274), and the name «Polesie» occurs in the chronicle according to the Ipatiev list as «Полѣсье» [5, p. 29]. In the historical cartography of XIV – XVI centuries, this name is cognate to single-root toponyms «Podlesie», «Poliase», «Polese» and the territory is mainly indicated in the area of the basin of Pripyat. Geographical localization of the name «Polesie» is mentioned in the works of Polish chroniclers of XIV–XVI century. Y. Dlugosz, M. Kromer, M. Strykovsky, where Polesie is located between the lands of Russia, Lithuania, Prussia, Volhynia and Mazovia and is divided into two parts – Lubelskaya (actually Polesie) and Lithuanian (or Podlesse) [4, p. 86]. In 1613, G. Garrits published a map of Eastern Europe on which Polesie stretched from Brest to Mozyr and from Pinsk to Dubrovitsa and Volhynia [5, p. 30]. The map of Guillaume de Boplan under the poles means the territory bounded in the north, east and west by the rivers Pripyat and Horyn [5, p. 31]. According to documents of XVII – XVIII centuries. «Polessky edge» called lands to the south of Novogradok district, the eastern part of Brest region, Turov region, David-Gorodok area, Pinsk region, northern and eastern parts of Lutsk district, Lubna and other Ukrainian lands, further to the east, up to «Kiev Polesie» [4, p. 30]. Toponymic materials about Polesie published in the third volume «Picturesque Russia» (1882), which determined the area of the Polesie region in 33950 square versts. At the beginning of XX century in the dictionary of brothers A. and I. Granat (1913) Polesie is limited by a conditional triangle Brest – Kiev – Mogilev [5, p. 28]. In the Polish encyclopedia of 1927, the region of Polesie is in the second edition it is equal to 270 thousand square kilometers within the boundaries of the Polesie lowland. The characteristic of the Polesie zone is noted in the collective monograph «Polesie. Material culture» (1988) by Belarusian and the Ukrainian researchers. According to scientists, the «core» of Polesie is the Belarusian-Ukrainian area, which covers a broad band on the conventional line of such settlements as Ratne – Ivanovo – Ivatsevichy – Biaroza – Hantsavichy – Starobin – Ptich – Mozyr – Elsk – Slovechna – Olevsk – Sarny – Kostopil – Kovel – Ratne [5, p. 37]. According to some scientists, the «Polish» Polesie is composed of the southern Beresteyschina, as well as Lublin region, Pobuzhye and southern Podlasie. [2, p. 20]. Researchers have identified the historical location of Polesie, which was fixed and has the following boundaries: the western boundary runs along the Western Bug River, the south boundary runs through cities Volodymyr-Volynskyi – Lutsk – Rivne – Novohrad-Volynskyi –

Kiev – Nizhyn along the river Seym to the modern borders of the Ukraine with Russia. To the east of the border in the Bryansk region to the Central Russian Upland lies the territory that geographers and ethnologists call the Bryansk-Zhizdrinsky Polesie. The northern border of Polesie is formed by a line that goes from the north of the settlements of Brest, Kobryn, Hantsavichy, Slutsk up to the Berezina River and on the left bank of the Dnieper in the Sozh River basin [5, p. 38]. The beginning of definition of ethnographic territories of Polesie as historical and ethnographic region in the territory of Ukraine belongs to the middle of XX century. Polesie of the Ukraine is a historical and ethnographic region, which is divided into three ethnographic regions: Eastern Polesie (Novhorod-Siverskyi, Chernihiv and Sumy), Middle Polesie (Volyn (Rivne), Zhytomyr, Kiev) and Western Polesie (Volyn) [2, p. 33]. M. Glushko notes that according to the «Atlas of the Ukrainian language» (1990) I. Matviyas established: the southern border of the northern (Polessky) dialect runs approximately along the line Volodymyr-Volynskyi – Lutsk – Rivne – Novohrad-Volynskyi – Kiev – Pryluky – Konotop and further along the Seim River to the border with the Russian language [2, p. 30]. Such same borders describes S. Makarchuk, but more widely: from the west to the east the border lies to the north of cities Vladimir-Volynskyi – Lutsk – Rivne – Korets – Zhytomyr – Kiev to Dnepr River, and to the east of Dnepr River – Kiev – Kozelets – Nizhin – Bakhmach – Konotop – Hlukhiv, borders of Sumy region until Bryansk region of Russia [4, p. 88]. In Belarus, the boundaries of Polesie were clarified in the researches of V. Titov in 80-90-ies of XX century. The territory was defined as a historical and ethnographic region, which is divided into two ethnographic regions – Western and Eastern Polesie. The historical region includes the southern part of Belarus from the Dnieper in the east to the state border in the west (the territory of Brest region, major part of Gomel region and the southern outskirts of Minsk region). The Northern border of Polesie passes through the Zhlobin–Luban – to the north of Hantsavichy – on the Biaroza–Ruzhany–Pruzhany and further along the Yaselda River to the state borders of Poland [7, p. 5].

**Conclusion.** Polesie is a historical and ethnographic region and represents the transition and growth from the south and north of Belarus, from the north to the south of the Ukraine, and covers some regions of Russia and Poland. However, historically, the traditional household features of the regional Polesie are most pronounced on the Ukrainian-Belarusian ethnic borders. The analysis of scientific materials shows that the historical and geographical area of Polesie meant different lands, which were localized very differently, but always referred only to the total area of the Pripyat River basin. Polesie is a historical concept, as well as a historical and cultural region with ethnographic zones. Such a large area has never been homogeneous either geographically or in terms of language, identity, life and culture. Defining the boundaries and localization of the

Belarusian-Ukrainian Polesie makes it possible to identify more specifically the general and local features in the folk traditional art of the Polesie region.

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## BYELORUSSIAN TILES

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Tiled tiles as a finishing material have been used for many centuries and today is the actual material. Each tile is separately an independent work of decorative art. But the tiles, which were only part of a large ornamental composition, were also widely used.

The first known stove tile on the territory of Belarus dates back to the beginning of the 14th century: the earliest stove tiles were found by archaeological researches in Polotsk and date to 1308.

The production of tiles in Belarus goes beyond regional significance. Tseninniki from Mstislavl, Orsha, Kopys, Shklov, had a significant impact on the development of not only Belarusian, but also Russian tiled art. The names of Belarusian masters of the 17th century are widely known in Moscow: Stepan Ivanov (Polubesa) from Mstislavl, Ignat Maksimov from Kopys and others [1].

Purpose: to study the characteristics of development of the tiled art.

**Material and methods.** The research materials were historical and archaeological researches, exhibits, photos and documents of ethnographic museums. Used methods: research, descriptive and generalization method.

The relevance of study of the stove tiles is connected with the fact that, despite the large number of works on dedicated tiles, there are a number of discrepancies, it requires complex consideration.

**Findings and their discussion.** Byelorussian decorative fireclay tiles are an item of consequence in cultural legacy. They are a momentous component part of decorative art because of the long time of their use on a wide scale, high professional level, deep reflection of complex socio-economic relationships as well as their idea content and artistic merit. Tile manufacture arose early in the 14th century in the towns and populated points closely linked with the Hanseatic League trading centers (Polotsk, Lida, Krevo) and is alive today. Tile manufacture and its production have been closely linked with all the other aspects of Byelorussia's general progress, i. e. its history, economy, public life, art – before all, architecture and also decorative crafts, such as pottery, wood-carving, weaving, etc. Having evolved together with fireclay tiles industry throughout Europe, Byelorussian pottery has retained its regional, ethnic and artistic peculiarities. The attraction of Byelorussian tiles lies in their imagery and dñcor which have a chronology of their own. The technology of tile manufacture is marked for steady improvement.

Early kinds of tiles, pot-shaped tiles, had the shape of primitive fireclay vessels and were used to lighten the construction of the stove vault and increase the convective heat exchange in a pise or tapia stove. Dependent on the development of stove design they assumed various shapes as far as the configuration of the mouth and the height of the sides were concerned. In the course of several centuries there were a number of transitional types of pot-tiles which were either 'built' by hand or shaped partly by spinning on the potter's wheel or completely thrown on the latter. They were also made of clay and coarse-grained additives or without any admixtures. The articles were jar-, pot- or bowl-shaped, rounded, square, trefoil or quatrefoil...

Further development of pot-shaped tiling gave rise to box-shaped ceramics which early in the 15th century supplanted the previous shapes. By mid-16th century a tile-faced stove, compositionally complete two- or three-tier structure, becomes an architectural and spatial part and parcel of the interior. Its facing is made up of quite a few box-shaped members including full-size wall tiles, fasciae and quoin units. There are also belt tiles, stiles, coronae, paterae, roof tiles and crowing members. Certain kinds of tiles acquired the character elements apart from the stove composition. A box-shaped tile is a relief slab cast in a fired clay, and later wooden, then Plaster of moulds. The box sides shaped on the potter's wheel are attached to the reverse side of the tile. As tile manufacture develops into an independent industry, the sides are moulded together with the decorative face tile to form a whole.

The reliefs of face tiles are remarkable for an abundance of ornamentative designs. The most common patterns are geometric, arabesque, design enclosing motifs in flora, heraldic including type abbreviations, figures of animals and

people which bring out mythologic, historic, religious motifs as well as scenes of everyday life. The most characteristic elements of geometrical designs are a wide range of stroke ornaments, circular or square, dotted or diaper patterns as well as stars, rosettes and sun disks. The flora dăcor consists of flowers, buds, leaves and sprays. Not infrequently these alternate with geometrical designs. The most common composition of such kind of ornament is their arrangement in a mirror image or in a four-part or mesh-work symmetrical pattern. This helps build separate tiles to be used on a «rapport» principle, i. e. designing each of them to be fitted into an all-over surface decoration (diaper work). Heraldic insignia are like-wise based on a combination of inclusion and symmetry. Among scenes that tell a story certain subjects stand out which have survived throughout centuries. Their content does not only correspond to canons sanctioned by time but is marked for a specific lay-out and decorative attributes. These subjects include a spray, tree of life, horseman, mascarons, portrait [1].

Covering tiles with glaze was of great practical and aesthetic importance. A lead glaze was widely used from the late 15th century. From the mid-16th century the range of glaze tints became more varied. Along with transparent glazes stained green with copper oxide, there were colorless ones and those composed of other metallic oxides, usually of manganese (stained brown), iron (pale brown) or antimony (yellow) as well as opaque white coatings (enamels) which were applied to the face of encaustic tiles to form so-called polychrome glazes. In the latter part of the 17th century was a tendency towards patterns in a differently colored clay covered with a white glaze stained blue with cobalt and later towards painting in cobalt over a vitreous coating. Sometimes this technique was combined with green, or yellow glazing (Dutch style). By the late 18th century monochrome white, green and brown coatings had taken root under the influence of classicism. And only in the 19th century the palette of tiling colors shook off these restrictions. Concurrent with a delicate merge of colours and tints, gold and lustre painting technique was brought into prominence.

As we follow the history of tile manufacture throughout epochs, we can see it developing, consistent, meticulously imbibing all the achievements of Byelorussian pottery as a whole. Production of tiles in Byelorussia has a reputation that exceeds the regional limits. Well-known in Moscow was the work of such ceramists as Stepan Ivanov from Mstislavl, Ignat Maximov from Kopys and others. In the 18th and 19th centuries as well as the early 20th century the glazed ware of Byelorussian factories in Kopys, Minsk, Mogilev and Ivenets was popular in many foreign countries and had a ready market in Riga, Petersburg, Moscow, Kiev, Lvov, etc.

Research into various aspects of tile manufacture in our country was started after the Great October Socialist Revolution. Publications were brought out by historians, social anthropologists, archeologists, specialists in artistic ceramic works concerned with problems of pottery techniques, Byelorussian contribution including [1].



**Conclusion.** Decorative and applied art has ingrained deeply and firmly into our life, it is always nearby and accompanies us everywhere in our life. Arts and crafts organically combines with other arts. One of its types is ceramics, tiled art to be exact.

Tiled art takes a special place and plays the role of synthesis between architecture and decorative and applied art, combining it into a single artistic whole, organizing the material and spiritual environment of human existence. Tiles are an element of architectural and decorative ceramics. They were used for exterior cladding of buildings and their interior decoration. Using the figurative properties of a tile, it is now equated to a piece of art.

Currently, the study of history of the development of tiled art is becoming increasingly popular. Tiled art at all stages of its development is characterized by traditionalism, which determines the nature of the works of famous masters and is a historical and cultural heritage. The tile gradually loses its utilitarian function and the growth of decorative products is traced.

1. Belorussian tile [album-catalog] / accessories-warehouses: V. E. Sobal, M. A. Tkachou, A. A. Trusau, U. V. Ugryy novich. – Minsk, 1989. – 161 p.

## **VISUAL METHODS OF ACADEMIC DRAWING IN TEACHING OF FOREIGN STUDENTS**

**Lisaveta Rudenko**

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Training of foreign specialists is an important work area in the modern system of higher education. The practice of teaching foreign students shows that the use of visual tools in classes arouses interest and accelerates process of learning, leads to rapid and more conscious comprehension and memorization.

The relevance of the article is defined by the lack of methodological development based on visual methods in teaching the academic drawing of foreign students.

The aim of the work is to analyze the practice of using visual teaching techniques in teaching academic drawing for foreign students.

**Material and methods.** Analysis methods of academic drawing classes were used for students from China in summer art school on base of graphic department in VSU named after P.M. Masherov. 12 students of the Beijing United University (2<sup>nd</sup>-3<sup>d</sup> year) took a crash course. The methods of observation, analysis, description and generalization of theoretical material were used.

**Findings and their discussion.** Teaching academic drawing consists of theoretical and practical material, which includes a large number of art terms and concepts in the field of fine arts. Not all foreign students are fluent in

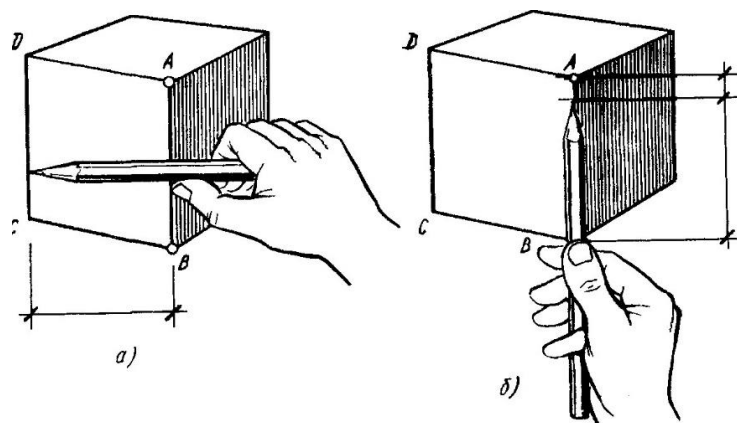
Russian. In this regard, there is greater need in optimize the process of preparing foreign students. The use of visibility is one of the sources to optimize the process of training of foreign students in the classroom on academic drawing.

Specially developed system of visual tools, techniques and methods, which are based on correctly structured information, will help to remove psychological and emotional stress from foreign students and thereby increase the effectiveness of the process of teaching academic drawing.

Information structuring is an important factor in ensuring the principle of visibility, which becomes the main one in work with foreign students. Minimization of verbal information at the initial stage of training, as well as its strict structure, with emphasis on the primary presentation of information in a visual form, will allow to implement affordable, durable and high-quality assimilation of knowledge.

During the initial phase of acquaintance of foreign students with the basics of academic drawing, it is rational to talk about the geometric method of drawing, to familiarize with the basics of perspective, proportions, and method of viewing. For a deeper and more meaningful knowledge acquisition in this area, it is necessary to reinforce it with visual diagrams during the explanation of theoretical material.

At the initial stage of the image execution, the sense of proportional relations of reality objects is one of the main ones in the process of drawing. In order to draw a still life consisting of several household items, it is necessary to determine how they relate to each other in size: height, width, volume, weight. This can be done using viewing method. The explanation should be understandable and in this case it's better to use a visual method as a personal demonstration of a teacher, where it will be shown gradually how and why the viewing method is needed.

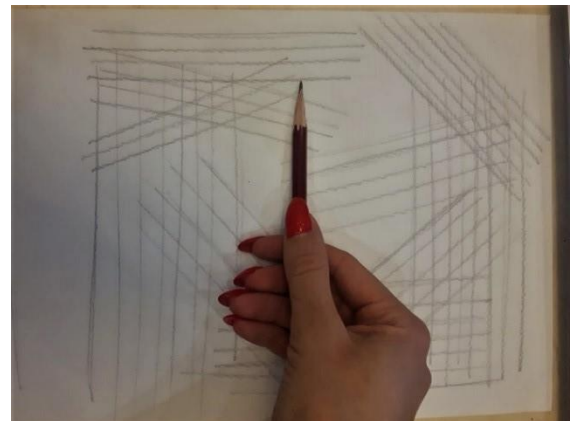
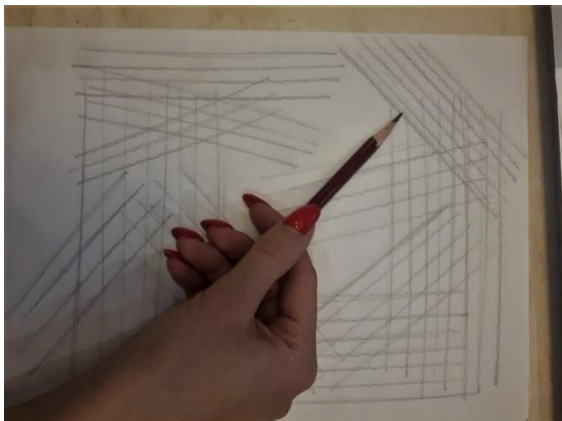


Apart from showing the visibility in the theoretical part of the lesson, it should be included in the practical part, when performing a series of exercises.

#### *Exercise 1*

Task: on a sheet of paper (A4-A5 format) draw lines in different directions. Touches should be light (flywheel) without movement at the elbow.

Purpose: development of motor skill of the hand.

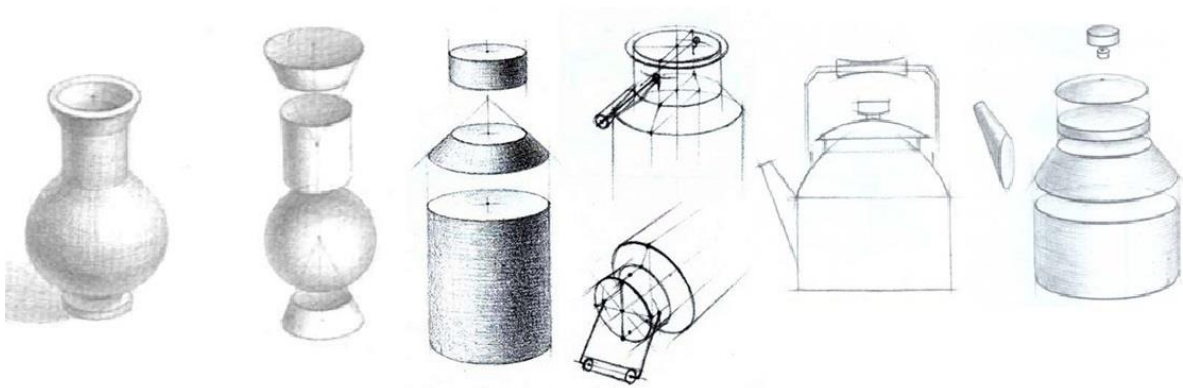


### *Exercise 2*

Task: to sketch the household item in two forms:

- in-kind;
- from geometric components.

Purpose: to develop observation, the ability to analyze form.



It is advisable to use a pedagogical drawing as an illustration in explaining the assignment. Thanks to this means of visualization, psychological contact arises between the student and the teacher, which leads to more successful training.

**Conclusion.** The most rational method in teaching academic drawing to foreign students is visualization. Mainly because the use of visualization most effectively solves the problems of the language barrier, which contributes to a particularly comfortable and affordable learning.

## USE OF ART EMBROIDERY AT EXTRA CLASSIC ACTIVITIES AT SCHOOL

**Marina Sadovnikova**

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Introducing students to the art of artistic embroidery is part of labor education. Art embroidery contributes to the development of students' understanding of the beauty of the world, imagination, imaginative thinking, logic, fine motor skills, accuracy and perseverance.

Art embroidery masters reinterpret traditional techniques and give them new, often unexpected sounds in their work. Small stitches alternate with large ones, some are superimposed on others, a chaotic order, an uneven seam is used. Today, such approaches to the creation of new forms performed by textile artists are becoming effective modern means of artistic expression.

The trend of free interpretation of traditions is seen not only in embroidery. Textiles give the artist countless opportunities to show their creativity. Therefore, techniques are mixed, rebuilt in a new way, different types of textiles are read in a new way.

The purpose of this study is to study the possibilities of using techniques of artistic embroidery in extracurricular activities at school.

**Material and methods.** The research material was the work of sixth grade students of the State Educational Institution "Secondary School No. 12 of Vitebsk". As the methods used: the method of comparative analysis, observation, pedagogical experiment.

**Findings and their discussion.** In the 2019-2020 academic year, a few hours a week were introduced into the extracurricular activities program for the implementation of decorative products in the technique: "artistic embroidery". Students of the 6th grades were eagerly carried away by the decorative direction in creativity.

Our work began with the study of various seams, such as: cross, half cross, forward needle stitch, stitch seam, needle back stitch, chain stitch, buttonhole stitch. The guys tried all these seams in practice, and to consolidate the result, they performed simple test compositions. We got acquainted with the works in the art of embroidery. We studied the basic color combinations. As a fixation, the guys were asked to make a souvenir using artistic embroidery. As a basis, we took the image of an owl and a cat's face made of denim. Modern masters of artistic embroidery use not only traditional materials, such as linen, but also materials from jeans clothes. Jeans were also chosen for their work with students, since this material has a dense base, accessibility, abrasions on the material can steal a decorative product. Children can further use their skills to decorate their jeans clothes or shoes. Each student developed his own sketch of decorating a souvenir.

Objectives:

- To promote the formation of a positive attitude towards traditions and culture among schoolchildren;
- introduce to the types of seams;
- perform independently a simple product using the art embroidery technique;

Next, the characteristic methods of work in this technique of decorative art were identified. A master class on the implementation of souvenirs was held with students in the 6th grade. This kind of creativity did not leave anyone indifferent. Everyone was enthusiastic in the process of creating a souvenir according to their own sketch and showed interest in this type of creativity.



Рисунок 1. Разработка эскизов



Рисунок 2. Готовые сувениры

After completing the first test assignment, students began to develop more complex projects. Everyone chose the size and method of decorating the product to their liking.

In the course of the work, sometimes there were minor difficulties that could be easily solved thanks to the perseverance of students. We can conclude that working in this technique is not difficult, but even very exciting. After all, you can implement each of your ideas.

**Conclusion.** Learning the methods of work, manufacturing products fascinated students. Work in this technique can serve as exhibition material. Technical techniques and the material basis of the art of embroidery are constantly being improved, which allows you to create all new compositions, other options for placing drawings. The diversity and richness of the composition is also achieved by creative implementation in the drawing of the diverse forms of the plant fauna, objects created by man.



## LEARNING METHODS AIMED AT FORMATION BY STUDENTS OF PAINTING VISION

**Natalia Sarakovskaya**

VSU named after P.M. Masherov, Vitebsk, Belarus

Methods of studying visual means of image are an important section of the teaching methods of painting. An analysis of the use of both traditional and relatively new teaching methods is determined by the specifics of the organization of the educational process and the need for the gradual formation of a picturesque vision among students.

The aim of this work is to review traditional methods of teaching painting, and a brief description of new methods used to form a picturesque vision of students, future teachers of fine art.

**Material and methods.** In this paper the techniques of teaching painting used at the Graphic Arts Faculty of Vitebsk State University after P.M. Masherov served as research material. When working on the research material, methods of analysis, synthesis and generalization were applied.

**Findings and their discussion.** In pedagogy, the teaching method is understood as «a system of actions aimed at achieving certain goals, as a way of joint activity of a teacher and students, aimed at mastering students' knowledge, skills and abilities, at developing students and upbringing» [1, p. 270]. In the process of teaching painting, they are used to transfer knowledge and skills of painting techniques from a teacher to a student.

Training in painting has a practical orientation and the teacher needs to lay not only theoretical ideas, but also to teach professionally depict the surrounding reality on canvas. In the process of image, both theoretical knowledge and practical skills are formed. But practical skills are the number of representations multiplied by the experience of the hand. The teacher-artist transfers the knowledge acquired earlier by himself, which is the starting point in the methodology of teaching painting. Modern art pedagogy adheres to a system of phased continuing education in training workshops. Representing nature on canvas, students are guided by the settings and instructions of the teacher. The main, effective methods and mainly used are: verbal explanation, visual demonstration of techniques of a pictorial image by a teacher, visual aids such as: the best works of students of previous generations; reproductions of the works of artists.

*Verbal methods* used in the process of teaching painting:

- method of theoretical explanation of the meaning of a particular pictorial production and its place in the sequence of tasks;
- frontal theoretical survey method to identify the necessary knowledge in the performance of tasks;
- individual explanation method to eliminate difficulties for a particular student;

- method of intermediate analysis of students' work at the beginning, middle and at the end of each session;
- analysis method of prevailing technical errors on the example of the work of a particular student;
- method of introspection of a student's own work, its strengths and weaknesses;
- a method of joint analysis of student work with the argumentation of any approving or critical opinion.

The methods *clearly illustrative* include:

- a method of analyzing nature through the prism of paintings by artists, which gives a more complete understanding of both the master's manner and the performance of full-scale production;
- method of demonstration and detailed analysis of the paintings of students from the methodological fund;
- copy method;
- method of work from nature;
- method of demonstrative demonstration of working methods on the surface of the canvas;
- the method of work of the teacher in the workshop with the implementation of the same tasks that are set for students.
- Practical methods include the following:
- the method of phased execution of pictorial sketches with fixing all stages;
- method of creating foreshades to comprehend the integrity of a pictorial composition;
- the method of repeated repetition of the same statement in short-term sketches with an emphasis on performing different tasks.

Some relatively new methods of studying the picturesque patterns appeared as a result of the need for students to form an integral pictorial vision of nature and develop the ability of its artistic and expressive transmission on the picture plane. These methods can be determined:

- The method of *successively increasing the amount of observed patterns and ongoing training tasks*. This method is used if necessary, differentiated, stable development of certain patterns of pictorial images. It enables the student to directly master the elementary pictorial patterns, and teaches us to see the embodiment of these patterns both in his work and in the works of various authors, which is already a purely pedagogical acquisition.
- The method of *analysis of the works of artists as a way of mastering coloristic designs*. This method gives a theoretical analysis of the works of artists based on ideas about the structure of the artistic image, and suggests performing pictorial sketches from nature, observing the laws and means of painting characteristic of the revealed color scheme. Students who have

mastered this method of educational work, in the future easily build a theoretical analysis of paintings, and can effectively apply the acquired knowledge and skills in pedagogical work.

– Method of *contrast setting of tasks*. Arose, if necessary, the formation of clear ideas about potential differences in the use of pictorial means of image. This method of completing assignments gives students an idea of the expressive and pictorial possibilities of various pictorial means.

– The method of *special selection of pictorial patterns and means of image*. The need for students to form a concept about the influence of the selection of patterns and means of image on the quality of a painting study implements this particular method.

– The method of *introspection of student paintings as a way to clarify their own artistic preferences*. The main goal of the analysis of their own paintings is to determine the mistakes made by the student when performing tasks and tasks that the teacher set. An analysis of one's own work helps the student determine the potential of his creative artistic abilities and the nature of their development.

As the experience of teachers of the graphic arts faculty of VSU named after P.M. Masherova, these methods allow students to form the idea that diversity in painting does not arise due to the fact that each time he is looking for a new nature, but due to the fact that he masters the variety of pictorial laws and means of painting.

**Conclusion** The considered methods of teaching painting allow us to sufficiently develop the picturesque vision of students. The application of these methods at various stages of the formation of a pictorial vision helps to diversify the work of students making it fascinating and interesting.

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## **TYOLOGY OF FEMALE IMAGES IN THE PAINTING OF BELARUSIAN ARTISTS OF THE XXI CENTURY**

**Veronika Vasilyeva**

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The female image and its various types in the visual arts are a favorite theme for most artists. However, for the understanding and analysis of modern types-images that have developed in culture nowadays, it is necessary to pay attention to numerous factors (social, genetic, historical, archetypal, psychological, etc.), which form these types.

The purpose is to identify the main types of female images in the painting of modern Belarusian artists.

**Material and methods.** The material of the study is the paintings of modern Belarusian artists of the early XXI century. Comparative and analytical methods are used to analyze and work with the study material.

**Findings and their discussion.** The interpretation of women's images in the visual arts and the typology, which formed on their basis, should be considered as a multi-level and quite complex process. Formation of the perception of female images consists of numerous factors (social, economic, political, historical, etc.), which subsequently influence the interpretation and representation of the female image. D. D. Mironov writes in his article «Representation and its features in artistic culture» that «the principle of figurative representations is that they are often associated with feeling», which «expresses the attitude to things and phenomena of the external and internal world». However, in artistic representation there is the influence of social «external and internal conditions» [1, p. 33]. Babich T. N. writes that representation in art is «the representation of artistic practice in the public space and an integral part of contemporary art» [2]. The typology of artistic images in art which is used by modern artists is formed depending the representative practice. Typology should be defined as the systematization of the most common types of images, in conjunction with artistic means and intent of the author. Thus, it is possible to distinguish the following most common types-images in the visual arts. Such types of images include biblical images (Eve, virgin Mary, Mary Magdalene), mythological images (witch, nymph, deity, Princess, etc.), images of social roles of modern society ( the mother's image, the image of the Muse, eroticized images, inspired by social clichés, etc.). It should be not that a collective female image, based on transformable female features, acquires a new reading. One of the forms of typology of female images is offered. A. Usmanova, highlighting the following types: Muse-inspirer, posing model, images of women as mothers, virgins (virgin Mary), harlots (Mary Magdalene), monster, witch, poet's or artist's Muse, etc. [3] Fedorova M. S. writes that «typology is inextricably linked with poetics and is based on its properties such as repetition and variation of types-images». The author also says that in typologies, occurring in different periods, two directions dominate – a positive image and a negative one. Based on this division, a further system of images is built, on the basis of on which the following typology of images-types is derived: biblical, historical, antique, the ideal image of the author and opposition to him, the images of ordinary people and superiors in status [4]. Belova D. N. in her article «the metaphor of the mirror and the transformation of the female image in the visual arts» notes that the image of the witch, which is used by artists at present, was transformed into the image of the femme fatale [5].

Modern artists use in their work different types-images, based on which they build the idea of the picture. So, for example, in the paintings of E. Schlegel, O. Kostogryz, O. Evdomenko, S. Sotnikov, V. Kozhukh, etc. mythological images of women are used, in various compositional and individual interpretations on the theme: the abduction of Europe. The plot with the «abduction of Europe» is often used by artists in the visual arts. Images of the

mother, characterized by warmth, affection, kindness, are reproduced on the canvases of modern artists, as the theme of motherhood is inexhaustible and relevant in different eras. It is possible to note some names of artists who addressed this subject, since the Renaissance and finishing modern time (V. Titian, Raphael Santi, P. Picasso, F. Shuprin, K. Petrov-Vodkin, G. Silivonchik, N. Shkraba, A. Kuzmich, T. Grinevich, A. Skorobogataya, etc.). The image of a woman, in the paintings of Belarusian artists, finds its reading through the allegory of the natural element, patroness, goddess, deity in the paintings: R. Spilevich “Bereginya” 1999–2004, T. Grinevich “Current”, 2008; I. Kostova “Grace”, 2003; V. Melnik-Malakhova “Medusa”, 2019; V. Shvayba “Makosh and daughters”, 2019; A. Kontsub “Flora”, 2014; E. Schlegel “Flora”, 2008; “Persephone”, 2010; N. Shopovalova “Seven days of autumn”, 2019. Social images-roles represent generally accepted norms of behavior, transformed by society, depending on the time (wife, model, young girl, traveler, artist, etc.) (R. Spilevich “Hostess”; T. Rustle “Crying baby”, etc.). Social these images-roles include portraits and self-portraits made by artists since they, can tell a lot about the moral and ethical spirit of the age, social status, general status of the model (L. Medvedsky, D. Barsukov, A. Krasavka, V. Kostyuchenko, D. Odintsov, V. Housing, etc.). The images of women from biblical stories that are accessed by Belarusian painters (A. Kozub “Eve”, “Bugs”). Should be also observed under the historical images used by artists, it is necessary to understand the appeal to the theme of the historical past, which was relevant in the 1990s, but today we can observe some decline in this area.

Thus, we can highlight the following: the most commonly used types-images in modern Belarusian paintings are biblical, mythological, social images-roles, collective images.

**Conclusion.** The typology of female images in the visual arts of Belarus requires systematization and detailed study, as it is the subject of a large scientific work. However, a partial review of the most commonly used female images in the visual arts has showed the following varieties used by artists in paintings: biblical (Eve, Mary Magdalene, our lady) mythological («Bereginya»), social images-roles (wife, mother, mistress, model, etc.), collective images in which artists don't use the image of a particular person, but the image compiled by the presentation to reveal the idea of the picture.

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## ACTUAL PROBLEMS OF THEORY AND PRACTICE OF JURISPRUDENCE AND FINANCE

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### OMBUDSMAN INSTITUTION IN THE COUNCIL OF EUROPE AND EUROPEAN UNION: GOALS AND OBJECTIVES FOR THE PROTECTION OF HUMAN RIGHTS

**Olga Adynets**

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The European Union and the Council of Europe have similar structural bodies responsible for monitoring respect for human rights and fundamental freedoms. The European Commissioner and the CoE Commissioner for Human Rights have identical objectives and similar powers. The purpose of the work is a comparative legal analysis of the purpose and responsibilities of the CoE Commissioner and the European Ombudsman, to identify the forms and prospects of their interaction.

**Material and methods.** The materials of the work were the EU Charter on Fundamental Human Rights of 7.12.2000, the Memorandum of Understanding between the Council of Europe and the European Union of 10.05.2007, etc. Main methods of research: comparison, analysis, generalization.

**Findings and their discussion.** Euroombudman (European Ombudsman) is a human rights commissioner from the European Union. The position is provided for by the Maastricht Treaty and appeared in 1993. A person with the citizenship of an EU member country, with experience in the field of human rights protection, is elected as the Euroombudman for Human Rights. He is elected by the European Parliament for 5 years by a simple majority. E. O'Reilly (Ireland) is currently in office. The main activity of Euroombudman is to investigate human rights violations on the basis of a complaint or on a personal initiative. At the same time, the Ombudsman is not restricted as much as possible in access to any necessary information provided to him by EU institutions. If violations of another type are found, it is entitled to notify the permanent missions of the member countries through which information on the violation reaches the competent national authorities. The European Ombudsman has the right to disclose any information received during the investigation, to keep confidential the person making the complaint if he or she may cause him or her harm. At the end of the investigation, the Ombudsman informs the complainant of the results. At the same time, he prepares an annual report to the European Parliament on the results of his investigations.

A similar institute was established in 1999 in the Council of Europe. The Commissioner of the Council of Europe is an independent official whose main

purpose is to monitor the observance of human rights. PACE is elected directly from three candidates nominated by the Committee of Ministers. The term of election is 6 years without the possibility of re-holding office. Since April 1, 2018, D. Miyatović (Bosnia and Herzegovina) has held the position. The activities of the CoE Commissioner are mainly aimed at promoting human rights monitoring, popularizing the legal guarantees given to citizens of the member countries of the Council of Europe, assisting working national structures in this field, detecting gaps in national legislation, and preparing recommendations for resolving problems related to the violation of human rights. These recommendations are referred to the CoE Committee of Ministers. The CoE Commissioner is also empowered to consider individual complaints, to respond to appeals from Governments, national parliaments, ombudsmen, individual organizations and individuals.

However, the two Commissioners act largely separately, only sometimes being included in the policy of solving problems within each other's responsibilities. An example of such cooperation is the divergence of views between the CoE Commissioner and the Eurobudman on the resolution of the refugee crisis. The CoE Commissioner in 2015 called the European Union's response to the crisis catastrophic, while a number of EU member states closed entry to refugees, resorted to the deprivation of citizenship of naturalized persons convicted of involvement in terrorist groups, search and surveillance of suspects in connection with the tightening of the domestic political situation against the background of terrorist attacks.

**Conclusion.** Thus, these officials have similar competence. The activities of both Euroombudman and the Commissioner of the Council of Europe are aimed at ensuring human rights and monitoring their implementation. Unfortunately, their joint operation is often contradictory and not always agreed upon, leading to duplication of functions. In this regard, a legal agreement is needed that can regulate the procedure for interaction between the two structures. For the first time, in part at the general level, the cooperation between the CoE and the European Union in the sphere of individual rights is formalized by the Memorandum of Understanding of the Council of Europe and the European Union 2007. The principle of indivisibility and universality of human rights allows to formalize their cooperation at the level of partnership, but there is no effective detailed system of their joint work and distribution of powers. The memorandum only mentions the intention to establish an agreement to resolve the issue in the near future. No such agreement exists at this time.

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## **SOCIAL CONSEQUENCES OF RUSSIAN FOOD GOST CANCELING: ANALYSIS AND MODELING ISSUES<sup>3</sup>**

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Since the adoption of the Federal Law “On Technical Regulation” in 2002, public authorities have been working on the development of common principles and approaches to ensure the quality of consumer goods [1]. Despite this fact, the Russian Federation has not yet created the conditions for effective self-regulation [2], which is confirmed by three key problems of institutional transformations.

Firstly, the transition to self-regulation contributed to the institutionalization of unfair producers’ practices, which became widespread due to adverse selection [3]. The most common of them includes: the use of low-quality raw materials [4], “false” labeling of products, as well as the production of falsified product, which is known in advance [5]. As a result, the standard GOST mark on the package, which is familiar to ordinary consumers, may not indicate compliance with the production technology, while the price of the product is formed by the market without taking into account “real compliance” [6]. It leads

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<sup>3</sup> This article has been prepared in accordance with the research findings carried out with the help of budget funds from the state task of Financial University under the Government of Russian Federation on the topic “Russia’s participation in the export and import of institutions”.

to the offer of low-quality products (like milk with palm oil) at the price of quality products [7].

Secondly, technical regulation norms have become an instrument to achieve the goals of state policy, which are not related to ensuring the quality of products, in particular instruments of a trade war [8]. Despite the food embargo, which was imposed in 2014 on products were manufactured in the EU countries, the import of prohibited products had been carried out through the EAEU countries [9], including the Republic of Belarus. To limit these practices, the Government of the Russian Federation raised the question about the compliance of products which are imported into the country with the requirements of the Technical Regulations.

Thirdly, the existing mechanism for formalizing the rules of technical regulation creates the conditions for “bargaining” between parties interested in adopting the rules, as well as for extracting political rent [10]. Manufacturers whose products already meet the requirements of the Technical Regulations are interested in adopting the rules of technical regulation. The latter strategy leads to an increase in fake products, which negatively affects the dynamics of industries [11].

The purpose of this study is to comprehensive analysis of reforms consequences in the field of technical regulation of food quality which have been providing by Government of Russian Federation for the ten years.

**Material and methods.** In the research the institutional approach is applied to discover reasons of this problem. It was ascertained, that choice of individual is embarrassed by transaction costs of informational search, measuring and opportunistic behavior under ambiguity in real economics. According to suggested position, the collapse of conducting reforms is determined by imperfection of communication between authorities, business and society. In acceptance of quality institutions (in Technical Regulations form) majority requirements isn't considered, it cause the grown of ambiguity and deterioration of food quality.

**Findings and their discussion.** The research proposes the solution of this problem by force of institutionalization of food quality requirements, which have a conventional disposition. For that analyst makes an attempt to uncover discursive nature of the quality. For the explanation of discursive nature of the quality the conception of “institutional construct” was put into use. It conceived of institutional constructs contribute to making institutions, and institutions promote the fastening of institutional constructs.

In this connection the article offers the analysis of quality/low-quality food discourse to uncover institutional constructs for institutionalization aims. In the research the critical discourse analysis method was applied, within the bounds of which substantial descriptions of quality assessment practice, by means of which discourses are incarnated. Quality assessment act is represented like a fact (predominantly communicative fact), which contains three aspects: requirements (assessment criterion), discursive and social practices. On examination of each aspect special sociological methods of collecting and analysis of empirical data was used.

Social and discursive practices were investigated by the participant observation of individual actions on food quality assessment and by the document analysis (normative not lawful acts: GOST, ISO, HACCP). The revelation of food quality requirements was carried out by the method of semi-formalized interview with the using of guide. Experts on quality control among the organs of government and nonprofit organizations representatives (8 experts were interviewed), average consumers (6 respondents) and business agency representatives (4 respondents) participated in this survey.

It was detected, that individuals operate with various versions of requirements in different conditions of discursive practices realization (in the form of production and consumption of texts). Quality, in its turn, is constant owned to discourse conservation and potential practicable referring to presence of social practices, which permit to render type of discourse. The model of relative and conventional quality was constructed at the expense of findings grouping using Boolean mathematics apparatus. The comparison of different models permitted to judge, that conventional quality model is the most suitable as a basis of food quality requirements institutionalization in present-day Russia.

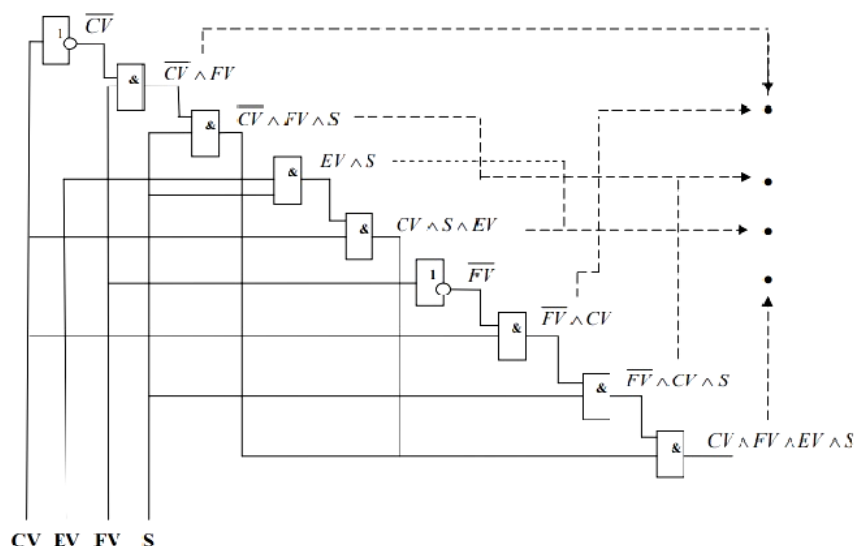


Figure - Scheme of the disjunctive normal form (DNF) of the model of the social standard of food quality

CV – customer value, EV – economic value, NV – nutritional value, S – security.

**Conclusion.** As the result of this measures improving the quality of food haven't fixed on the Russian's food markets. The article contains an analysis of the food situation in Russia, according to which a deficit of dietary nutrients recorded in the diet of the population. This article suggests the comprehensive analysis of the effects of reforms in the field of technical regulation of food quality which have been providing by Government of Russian Federation for the ten years. As the result of this measures improving the quality of food haven't fixed on the Russian's food markets. The article contains an analysis of the food



situation in Russia, according to which a deficit of dietary nutrients recorded in the diet of the population. Besides, institutional changes have brought to the loss of food determinacy.

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## CHILD RIGHTS IN HEALTH

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The content and scope of human rights and freedoms in different historical periods were not the same. However, in the first constitutional acts the idea arose that people from birth are given equal rights and freedoms, as well as a number of natural inalienable rights.

The relevance of the topic lies in the fact that the right to life is the fundamental significant right of every person who belongs to him from birth. And no one can be deprived of it, since this right is protected by law and the state.

The purpose of this article is to analyze and identify the features of the legal regulation of the rights of the child in the field of health.

**Material and methods.** The scientific and theoretical basis is the normative legal acts in the field of health care, the works of constitutional scientists, considering the legal regulation of the rights of the child in the field of health care. When writing the article, the method of analysis of theoretical and legal views was used. The analysis method is used in conjunction with the synthesis method, which made it possible to combine various points of view and identify the features of securing the rights of the child in the field of healthcare.

**Findings and their discussion.** The state guarantees the right to life, and also protects a person's life from any illegal encroachment, and this issue is considered not only in the framework of internal jurisprudence, but also at the international level.

At present, vigilant attention is being paid to the rights and freedoms of children, both in terms of their consolidation in the legislation and in matters of their implementation. Over the past decade, a new state policy on children has been formed in the Republic of Belarus, which was built taking into account the post-industrial technogenic positions of the world community and in accordance with international treaties and acts.

The right to life, as well as subsequent rights of children, depends not only on its consolidation in legislative acts. Its implementation depends on a huge number of factors, both legal and social, and economic. The protection of the health of mothers and children is a priority dominant area in the field of healthcare of the Republic of Belarus. Tasks that are addressed to protect children's health are set at the state level and carried out in accordance with the Constitution of the Republic of Belarus, the Law of the Republic of Belarus "On Health Care", the Law of the Republic of Belarus "On the Rights of the Child", and the Code of the Republic of Belarus on Marriage and Family and other normative legal acts.

In accordance with programs such as: The Presidential Program "Children of Belarus" for 2006-2010, the Health Development Program for 20016–2020 and others, differentiated measures aimed at improving the health of children, reducing the growth of disease and mortality. Article 184 of the Code of the Republic of Belarus on marriage and the family stipulates that children have the right to live in peaceful, as well as safe and dignified conditions. Also, article 5 of the Law of the Republic of Belarus "On the Rights of the Child" stipulates that the child has the right to protection as well as health promotion, and the state creates appropriate conditions for this. Children are provided with medicines according to prescriptions of treating doctors free of charge in the manner prescribed by law. In order for this stated right to be realized, we need a whole mechanism, which is built into the subsequent system.

The child's right to protection and promotion of health includes, first of all, affordable medical care, which is ensured through the provision of free medical care on the basis of state minimum social standards in the field of public health in public health institutions; the availability of medicines and their free

provision under certain conditions; the implementation of measures for the sanitary-epidemiological well-being of the population and others. In the Republic of Belarus, perinatal care is created in the form of a multilevel system. The fundamental principle is the modern and high-quality medical care for a pregnant woman and a newborn child at the very level where the necessary conditions are created for the maximum preservation of the life and health of the woman and the child. Also, the adoption of standards ensuring the legal consolidation of surrogate motherhood can also be combined with guaranteeing the right of the child to life. In 2019, it is planned to clarify and expand the scope of regulation of the Law of the Republic of Belarus “On Assistive Reproductive Technologies”.

The totality of microsystems, combined into a holistic health care system, sets itself certain tasks: accessibility, phasing and continuity using innovative advanced technologies; the provision of qualified assistance by highly qualified specialists in the field of medicine; creation of a modern consultative base for women with gynecological pathology and others. Belarus is among the ten countries in Europe with the highest percentage of child survival.

Violations of the rights of the child, as well as non-observance of these rights in the field of healthcare or lack of attention to them, can have serious consequences for the health of children. Explicit or latent discrimination of children's rights in health care and by health workers, parents, and legal representatives can become a barrier to access to full-fledged medical services and affects their quality. The right to health does not exist separately from other rights, such as the right to food, or the prohibition of torture and non-humane or degrading treatment. “An improvement in compliance with a single right contributes to improvements in compliance with other rights. Similarly, a deterioration in the observance of any one right negatively affects the observance of other rights” [2].

**Conclusion.** Thus, we can conclude that all measures that set specific goals, together, allow you to achieve certain results. According to official statistics, Belarus belongs to countries with a low level of child mortality. And this level reflects not only the influence of biological risk factors on mortality, but also the level of their social well-being. Thanks to the implementation of health programs that the state sets for itself, the country's right to life is ensured quite high in the country, and subsequently other rights enshrined in law. After analyzing the regulatory legal acts, we came to the conclusion that the Republic of Belarus does not infringe on the rights of the child, both at the legislative and social levels in the health sector. The state fully implements both intra-state and ratified international standards [1].

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## GENERAL REGULATIONS OF THE WEAPONS LEGISLATION OF THE REPUBLIC OF BELARUS

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Nowadays the world situation proves us that the problem of weapons is widespread and relevant to the whole humanity. It affects not only the usage of the weapons in the military conflicts, but also in the problematic topic of the weapons trafficking around the world. That's why more and more at the national level the issue of storage, carrying, transporting of various types of weapons within a particular country is being surveyed. At the same time, the number of weapons is increasing every day, and these are new opportunities for using weapons, but not always for good purposes. Most states have the tendency to fix the position of weapons in the system. Somewhere this system is represented by a constructional norm, or by a special law, many countries are members of significant international agreements and conventions. However, weapons are constantly updated, it means that there is a need for a concrete, structural streamlining of all measures for the effective operation of weapons legislations of states.

The purpose of this article is to identify the peculiarities of the Belarusian weapons legislation at the present time, to analyze the legal regulation in the field of the using and carrying of weapons by citizens of the Republic of Belarus.

**Material and methods.** The scientific and theoretical base is the legislative documents in the field of weapons, namely the Law of the Republic of Belarus «On weapons», the Criminal code and other regulatory legal acts. The method of writing the article is the analysis of the legal framework of the national weapons legislation specification.

**Findings and their discussion.** The weapons legislation of the Republic of Belarus has material theses on the delimitation of the rights to weapons, which have passed the stage of formation and today are specified by amendments. Ordinary citizens are granted this right upon the receipt of permission and after passing the registration procedure. The basic law in the sphere of weapons is supported by previously adopted international acts, therefore in Belarus this issue is considered both within the legal framework of the state and the international experience.

To begin with, before the appearance of the specialized normative legal act, the weapons legislation of the Republic of Belarus was not promulgated by single laws. However, in 1999 Belarus acceded to the European Convention of the Council of Europe on the control of the acquisition and storage of firearms by individuals [1]. According to the international treaty, the signatory powers establish the required effective measures to suppress the illegal trade, storage and trafficking of firearms among private individuals in the territory of this state. Nevertheless, the act imposed special international obligations on

criminalizing for the operations with illegal weapons and explosive devices. Therefore, two years later the Law «On weapons» of the Republic of Belarus was adopted; it is a key link in the system of the legislation on weapons of our state.

At the present time, the legal framework of Belarus regarding the issue of weapons is represented by the Constitution of the Republic of Belarus, the Law of the Republic of Belarus «On weapons» [2], the Criminal code of the Republic of Belarus [3].

The right to acquire and store weapons in Belarus is regulated by the Law «On weapons». It should be noted that this right spa on self-defense weapons, sports, hunting, signal weapons and ammunition. The provision procedure is defined only for citizens of the Republic of Belarus who have reached the age of majority, who have received special permission from the internal affairs bodies and have a supporting document for paying the state fee for this permission. The right is unsuitable for people who haven't passed the medical commission, who have a criminal record, who was prosecuted, who don't have a permanent residence, which is appropriate for the safe storage of weapons. The internal affairs bodies additionally monitor the passage of a testing of knowledge of the safety rules for handing weapons [2, art. 14].

In addition, the Law reinforces the right to carry, store and use weapons for officials of the state military bodies, such as the Military prosecutor's office, the State inspectorate and other state institutions. The actions with service weapons are applied while the performance of duty or in self-defense [2, art.6].

Turn our attention to the fact, that today the issue of the award weapons is relevant too. In the Republic of Belarus for the storage or carrying of the award weapons it is necessary to obtain permission that is issued by the President of the Republic of Belarus. The storage of the weapons must be accompanied by special documents confirming the rightful ownership of certain types of weapons. This right within the territory of Belarus belongs exclusively to its citizens [2, art. 22].

It is necessary to highlight another regulatory legal act of the weapons legislation. It is the Criminal code of the Republic of Belarus. The implementation of the illegal actions of the storage, transportation and carrying of firearms is punishable by community service, fines, arrests, in some cases imprisonment for up to 12 years. Both firearms and ammunition, explosive devices and substances are subject to strict regulations [3, art.295].

**Conclusion.** Thus, the essence of the above is that the formation of the republican weapons legislation has passed the historical course. The censorship system of the legal status was established in the 60s of the XX century and was inherited by Belarus practically without changes. At the present stage of the history existing measures have been taken to consolidate the weapons issue in specific legal acts. The person who own the weapons has a huge responsibility. Indeed, punishments have been established for illegal actions in relation to weapons, in some cases even reaching imprisonment. Consequently, the owner



must clearly understand the content of the granted right and act in accordance with the laws. The rightful possession of weapons and other products of this type is your safety, not only security, but also legal.

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## LEGAL REGULATION OF THE STATUS OF LINGUISTIC MINORITIES IN THE COUNTRIES OF CENTRAL AND EASTERN EUROPE

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Recently, as a result of the inconsistent government language policy in the countries of Central and Eastern Europe, there has been a general tendency towards a decrease in the number of linguistic minorities and a violation of their rights.

The purpose of this work is to determine the legal status of the language of national minorities in post-socialist European countries.

**Material and methods.** The material of this study is the framework Convention for the Protection of National Minorities, the European Charter for Regional or Minority Languages, the Law "On ensuring the functioning of the Ukrainian language as the state language", The law on the Polish language and legal acts. The main research method was the method of comparative legal analysis.

**Findings and their discussion.** The countries of Central and Eastern Europe have ratified a number of international documents that guarantee the linguistic rights of citizens. These documents are the Framework Convention for the Protection of National Minorities and the European Charter for Regional or Minority Language. The Framework Convention for the Protection of National Minorities states that “every person belonging to a national minority shall have the right freely to choose to be treated or not to be treated as such and no disadvantage shall result from this choice or from the exercise of the rights which are connected to that choice” [1, part 3].

Countries that have adopted these documents are required to adhere to their implementation on their territories. However, law enforcement practice in some countries does not always comply with the regulations established in constitutional law. Thus, analyzing the legal regulation of the status of the Russian language in Ukraine, it should be noted that the 1996 Constitution in accordance with European standards guarantees “free development, use and protection of Russian and other languages of national minorities of Ukraine” [2, art.10]. However, considering the language issue, you can be certain that the situation of solving the problem of the Russian language in Ukraine is not developing for the better. In 2019, the Law “On ensuring the functioning of the Ukrainian language as the state language” enters into force in Ukraine, which confers the exclusive rights on the Ukrainian language compared with other languages in the multinational country [3]. According to the law, the Ukrainian language is to be used in the state and municipal sectors, in the mass media, in the medical and transport spheres, in art and education, in goods and service labeling. Thus, the Russian language in Ukraine finally loses its status of a language for international communication. In accordance with the law, the communication functions belong exclusively to the Ukrainian language. Since that time, speaking Ukrainian has become the responsibility of every citizen of Ukraine, including individuals who wish to obtain Ukrainian citizenship. The Russian language is reduced to the status of other languages of national minorities of Ukraine. The Ukrainian language has become the only official language in publishing, the circulation in other languages can't outnumber the circulations in Ukrainian. All Internet sites have to provide their Ukrainian versions. All cultural events are to be held in the official language. Theatre performances in other languages are to be accompanied by subtitles in Ukrainian. In the scientific research field, scientific articles and theses are allowed in the Ukrainian language or in the languages of the EU countries, which the Russian language and most languages of national minorities are not. The Ukrainian language is becoming mandatory in the sphere of education. In primary school education is allowed in Russian and other languages of national minorities. But higher educational establishments only carry out education in Ukrainian. The law separately establishes fines for non-use of Ukrainian, but they will be applied in three years. Certainly, the difficult political situation in the country and the desire of the authorities to carry out Ukrainization affects the decision on the adoption of this law. Without considering the advantages and disadvantages of this decision, it should be noted that the development of language legislation should take into account the interests of all language groups.

Let's pay attention to the language policy of Poland. The most important legal act in the language policy is the Law on the Polish Language of October 7, 1999, which implements the protection of the Polish language, its use in the public sphere, as well as in the trade and other public relations [4, para. 1]. The

law includes the requirement for the mandatory translation of international agreements into the state language, the placement of inscriptions and information in offices and municipal organizations in it, as well as training in Polish at educational institutions at all educational levels. At the same time, the law emphasizes the right of citizens belonging to national and ethnic minorities to “preserve and develop their own language, preserve their customs and traditions and develop their own culture” [4, para. 35]. The Law on National and Ethnic Minorities and the Regional Language of 6.01.2005 not only confirmed the right of citizens to freely use the minority language in private, public life, to place private information in it, but also consolidates the possibility of using the minority language as an auxiliary language in gmines (the smallest administrative unit of Poland) if “the number of residents of a minority whose language is to be used as an auxiliary language is at least 20% of the total population of the gmine ” [5, para.9]. Minorities have the right to freely unite to protect ethnic self-identification. According to the Law on Public Associations of April 7, 1989, it abolished the actual “monopoly”, according to which only one organization could represent the interests of the national minority in Poland [6]. An opportunity for cultural and ethnic pluralism has appeared. There are special state bodies responsible for ensuring legislation regarding the rights of national-linguistic social communities. School authorities have to ensure the right of minorities to get education in their native language, both in specialized schools and in schools with additional education in the native language. The Ministry of Culture maintains regular working contacts with the main public associations of these minorities, systematically provides financial support for cultural events and the press published by minorities.

**Conclusion.** Thus, if we compare the legislation of Ukraine and Poland regarding the status of linguistic minorities, we can conclude that in both countries there are laws aimed at supporting and developing their native language. However, in Ukraine, due to the current political situation, the role of the Russian language is being diminished and the rights of national minorities are fading into the background. In this case, Poland can set an example of the government paying special attention to ensuring the rights of linguistic minorities, creating conditions for the full realization of their individual and collective rights.

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## **LEGAL REGULATION OF MEDICAL SECRECY IN THE REPUBLIC OF BELARUS AND FOREIGN COUNTRIES: COMPARATIVE LEGAL ANALYSIS**

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The problem of medical secrecy is one of the most pressing. This is due to the fact that ensuring privacy is one of the significant factors for a full and convenient citizen's existence in society. However, the legal regulation of system that protects the privacy of citizens from outside interference is complicated by the fact that each person determines for himself which aspects of his life constitute a personal secrecy. The need for protection personal information, in particular information about health, from disclosure is universally recognized. Among these, first of all, it is necessary to name the information constituting a medical secrecy.

The aim of this work is an objective and comprehensive study of the characteristics of the institution of medical confidentiality in the Republic of Belarus and foreign countries. A research of the legislation of several countries will allow a deeper study of the issue, find possible solutions to existing problems, and eliminate gaps in the legislation.

**Material and methods.** When studying this issue, the following sources were of particular importance: The Law of the Republic of Belarus "On Health Care", Health Insurance Portability and Accountability Act of 1996 of the USA, Personal Information Protection and Electronic Documents Act of 2000 of Canada, etc. Formal legal and comparative methods were used in the writing of the work.

**Finding sand their discussion.** The legislative basis of medical secrecy comes from Art. 28 of the Constitution of the Republic of Belarus, which states: "everyone has the right to protection against unlawful interference in his personal life" [1]. It should be noted that information about the health of a citizen is of a personal nature, and therefore medical confidentiality should be identified as an primary part of personal secrecy – information concerning only one person and kept from other people, except the person's public and service activities. On the basis of which, a special procedure for its disclosure and use is established [2].

The main legal act in Belarus establishing the protection of medical confidentiality is the Law "On Health Care": Art. 46 determines what information relates to medical secrecy, subjects of medical secrecy, their rights and obligations,

the procedure for providing data on the patient's health status [3]. It attributes medical secrecy to the basic principles of public health and defines the circumstances in which information is allowed to be passed on to other citizens, officials with the consent of the citizen or its legal representative, and without such consent.

Secrecy of data regarding health status is also guaranteed by Art. 18 of the Law "On Information, Informatization and Protection of Information", which prohibits (with the exception of cases) the processing, collection, storage, use of such data [4].

There is no definition of medical secrecy in the legislation of Belarus. The law defines it by listing the information that makes up its contents. So, medical secrecy in accordance with Part 6 of Art. 46 of the Law "On Health Care" compiles information about the fact of a need for medical care, health condition of the person, a disease and diagnosis, possible methods of medical care, the risks of medical intervention, possible alternatives to the proposed medical treatment, and the results of pathoanatomical research [3]. The list is open, allowing recognition as medical secrecy and other information, including personal information obtained in the provision of medical care to the patient. Information about the use of assisted reproductive technologies, about the personality of the patient and the donor also constitute a medical secrecy [part. 1 article. 8-9, 5]. According to Part 2 of Art. 20 of the Law "On the provision of psychiatric care", medical secrecy includes: information about the fact of the request for mental health care and the mental health status, information about a mental disease, diagnosis, other information, including personal nature obtained during the provision of mental health care [6].

Not only medical and pharmaceutical workers have the obligation to maintain medical secrecy, but people who become aware of information constituting medical secrecy have the same obligation [4]. For example, students of medical universities and colleges who practice at medical institutions, and employees of the registry. It should be noted that the discussion by the attending physician of information on the treatment with any doctors, nurses directly related to the care of the patient is not recognized as a violation of confidentiality. And patient consent is not implied [4].

Analyzing the legislation of foreign countries, we will pay attention to the experience of the United States. In the United States, the primary legal act governing the area under study is the 1996 Health Insurance Portability and Accountability Act (HIPAA). The Act is the minimum standard at the federal level that establishes the confidentiality of patient information, cases of use and disclosure of medical secrets, and also provides for civil and criminal liability for illegal use of information. This Act is crucial, since before its adoption only certain groups of people were protected from illegal dissemination of information, for example, HIV-infected people. The Act establishes a period of 50 years after death, during which the protection of patient information is in force [7]. According to the Act, dissemination of information is possible during



a state of emergency. This was the case with Hurricane Harvey in 2017 [8]. Many states have passed their own laws protecting medical confidentiality.

Medical secrecy in Canada is guaranteed both at the federal and local levels. The Act establishes requirements for the information gathering, use and protection of information by medical professionals. The main document in this area is Personal Information Protection and Electronic Documents Act (PIPEDA) [9]. PIPEDA is comparable to HIPAA in the USA, discussed above, but there are a number of differences. In the United States, the Act regulates the confidentiality of medical confidentiality only for health care providers, medical insurers, and medical information exchange organizations. In Canada, PIPEDA applies to all medical confidential information, regardless of organization. The provincial privacy commissions play an important role in protecting the rights of patients.

**Conclusion.** Thus, it must be emphasized that the preservation of medical secrecy is an important moral obligation of every medical worker. Heads of medical institutions, in turn, should be aware of the need to preserve information that is legally classified as medical secrecy, and the grounds that provide a legal right to disclosure, because illegal disclosure this information is a sign of professional unfitness. In this regard, the legislator in the Republic of Belarus needs to develop a more precise concept of medical secrecy, as well as to define a time frame setting a time limit for which information should not be disclosed. To solve these problems, it is necessary to analyze the legislation, on sacred issues of medical secrecy, including the legislation of foreign countries. In turn, the improvement of a unified electronic database of all patients, the creation of recommendations for medical workers and institutions dealing with the protection of confidential patient information, including medical information, is required.

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## **FIGHT AGAINST CORRUPTION IN THE EU**

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Corruption is an urgent problem for many countries, but it is often hidden, which makes it difficult to identify the affected areas and consequences. Corruption is a constant phenomenon in society and it takes place in all countries and periods of development of civilization, but only in the last 20 years this phenomenon began to be seriously studied.

The relevance of the topic is that corruption has many different forms, as well as many different effects that affect both the economy and society as a whole.

The purpose of this article is to consider and identify the features of the fight against corruption in the European Union.

**Material and methods.** The scientific and theoretical basis is the statistics published by the international organization against corruption - Transparency International. Also, EU anti-corruption reports and anti-corruption normative legal acts. When writing the article, the method of analysis of theoretical and legal views was used. The analysis method is used in conjunction with the synthesis method, which allowed us to examine in more detail the EU legal framework in this area.

**Findings and their discussion.** The fight against corruption is carried out not only in individual EU countries, but throughout Europe as a whole, with each year the EU government is increasingly improving the legal framework in this area.

First of all, we will define what corruption is. Transparency International, a non-governmental international organization for the fight against corruption and the study of corruption levels worldwide, gives the following definition: corruption is the abuse of trusted power for personal gain, which can be classified as large, small, and political, depending on the amount lost and the sector in which it occurs [1].

The EU Treaty recognizes corruption as a “crime against the euro,” and ranked it as a particularly serious crime, having a Euroregional space. With the adoption of the Stockholm program, the European Commission received a

political mandate to measure anti-corruption efforts and develop an integrated EU anti-corruption policy, in close cooperation with the Council of Europe Group of States against corruption.

It is in the general interest to ensure all Member States have effective anti-corruption policies, and the EU supports Member States in continuing this work. The EU anti-corruption report published in 2014 showed that the nature and extent of corruption varies from one EU country to another, and that the effectiveness of anti-corruption policies in each individual country is completely different. The report also showed that corruption deserves more attention in all EU countries [2].

Since then, the EU Anti-Corruption Report has served as the basis for dialogue with national authorities and has also become the basis for wider discussions throughout Europe. All EU countries have designated a national point of contact to facilitate the exchange of information on anti-corruption policies. Together with the anti-corruption experience exchange program, initiated by the Commission in 2015, these efforts have prompted national authorities to better implement anti-corruption laws and policies.

The efforts of the Anti-Corruption Commission are centered around the following bases:

1. The inclusion of anti-corruption provisions in horizontal and sectoral legislation and EU policies;
2. Monitoring action against corruption by member states;
3. Support for the implementation of anti-corruption measures at the national level through funding, technical assistance and the exchange of experience;
4. Improving the quantitative database of anti-corruption policies [2].

*The fight against corruption in EU legislation.* One of the tools that help efforts to combat corruption is to ensure a generally high level of legislation, in particular with regard to corruption, or to incorporate elements of the fight against corruption in other sectoral legislation. The Union has a common right to act in the field of anti-corruption policy to the extent established by the Treaty on the Functioning of the European Union. In particular, the EU must ensure a high level of security, including by preventing and combating crime and approximating criminal laws. In article 83, the Treaty recognizes corruption as a “crime against the euro,” therefore the EU has legislative powers to regulate this area.

The main anti-corruption law includes the 1997 Convention Against Corruption involving EU officials or officials from member states and the 2003 Framework Decision to Combat Corruption in the Private Sector, aimed at criminalizing both active and passive bribery.

European law in other areas, such as the fight against money laundering and public procurement, contains important anti-corruption provisions. Further measures have been taken or are being discussed to increase transparency, for example with regard to beneficial ownership and transparency of corporate tax

or contacts between decision makers in the EU and representatives of interest. Work to combat the risks of fraud and corruption in the use of EU funds is also a cornerstone of anti-corruption policies, as the legislative work to create a European prosecutor's office and the EU financial interests directive indicate that the commission, together with parliament, has worked on a number of legislative initiatives related to combating with corruption.

In the area of asset recovery, in December 2016, the Commission adopted a proposal to regulate the mutual recognition of freezing orders and will further study the possibility of imposing confiscation without conviction [2].

*Technical support.* The Commission's Structural Reforms Support Service provides assistance to Member States authorities in order to improve the prevention and fight against corruption. The work includes assisting EU countries in the development and effective implementation of structural reforms, the timely application of EU legislation, and the efficient use of EU funds. Support is available for all EU countries, upon request to the Commission.

*Supporting anti-corruption measures at the national level.* The Commission regularly organizes seminars on the exchange of experience on combating corruption in the EU. This program supports stakeholders from Member States in discussing and sharing solutions to integrity policy issues. In addition, the Commission provides funding on a regular and ongoing basis to support a wide range of projects through ISF or ESIF funds aimed at enhancing honesty and improving the conditions for combating corruption in EU Member States. The Seventh Research and Innovation Framework funded the ANTICORRP research project to examine factors that contribute or hinder the development of effective anti-corruption policies. This multidisciplinary project consisted of twenty research groups in fifteen EU countries.

Horizon 2020's R&D program funded a project called DIGIWHIST - Digital Whistleblower: Crystal Transparency, Risk Assessment, and Impact Assessment of Good Governance Policies. It brings together six European research institutes with the goal of empowering society to combat corruption in the public sector through the systematic collection, structuring, analysis and dissemination of information on public procurement and accountability mechanisms [2].

**Conclusion.** In recent years, the Commission has emphasized that the fight against corruption is a key element in helping to achieve the priorities of growth, employment and investment. The prevention and fight against corruption are key elements of the economic management cycle in the European semester, which is the main dialogue on economic policy between the EU and national authorities. The annual country reports of the European half-year include a detailed analysis of corruption risks and related problems. The annual country reports of the European half-year include a detailed analysis of corruption risks and related problems. Where appropriate, these issues are also reflected in Country-specific Recommendations, which are approved annually by national

leaders in the European Council. Examples include recommendations to combat ineffective public procurement practices, strengthen rules to prevent conflicts of interest, review statutes of limitations for corruption offenses, or resort to informal payments in the healthcare sector.

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## UN LEGAL SOURCES IN THE FIELD OF REGULATION OF ONLINE SPACE AT THE PRESENT STAGE

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Providing a stable and secure online environment is no longer an exclusive problem of the technology and software sector. Recently, more and more attention has been paid to the regulation of the Internet sphere, which is directly related to the rapid globalization, the widespread integration of states, the projection of the main spheres of society onto the online space, the emergence of legal gaps in the field of ensuring human rights, new threats to state security, expanding the scope of attackers, the difficulty of accurately identifying the location of hackers, and, as a consequence of this, the need for criminal law cooperation of present states.

The purpose of this study is to analyze the legal activities of UN bodies in the field of cyberspace regulation in connection with the rapidly arising legal conflicts in this area.

**Material and methods.** The main materials of the study are the Resolution “Creation of a global culture of cybersecurity” dated 01.01.2003 No. 57/239, Draft Convention on International Information Security, etc. The formal legal method as well as analysis and generalization were used in the study.

**Findings and their discussion.** The obvious insufficiency and inefficiency of unilateral actions of states in ensuring stable cybersecurity places a serious responsibility on the international community for the formation of unified integrated systems countering online threats. The leading organization in the field of facilitating the creation of a uniform approach to the pressing problems of our time is the UN, which has repeatedly recognized the urgent need for a solution to the key problems of insufficient Internet regulation.

Already in 2003, the UN General Assembly adopted the Resolution “Creation of a global culture of cybersecurity”, which was one of the first to draw attention to the very concept of “cyber security” and developed a number



of inevitable components of its achievement. The formation of an online community cannot be denied, its influence on all spheres of life in modern society is becoming stronger every year, and therefore the Resolution proposes to set the goal of achieving the state of the greatest protection of a person and society from cyber threats. There is the emphasize on the fact that cybersecurity cannot be achieved individually, it is not a problem of one state and its government, widespread cooperation should be provided in this area. The General Assembly has developed nine complementary elements for achieving cybersecurity: awareness, responsibility, response, ethics, democracy, risk assessment, security design and implementation, security management, reassessment. In the disclosure of the above elements the Resolution sees direct instructions for the interaction of states and other participants in online relations [1].

It is worth noting that the UN, as a member of the online space, has repeatedly become a victim of insufficient cyber security. In 2013, the Report of the UN Secretary General was submitted, an operational action plan was developed to eliminate comments in this area based on the results of the work of the Board of Auditors on the vulnerability of information systems of the UN Secretariat. The problems noted in the Report are ubiquitous. First of all, the Report paid special attention to technical equipment and ensuring systematic monitoring by invited experts of the relevant specialization, strengthening preventive control measures, checking all software packages, timely detection of unauthorized access attempts, installing degree assessment systems security. Directly confronted with the problem of cyber security, the UN is actively proposing the most effective ways to respond to cyber-attacks [2].

In 2015, the United Nations Economic and Social Commission for Western Asia presented Political Policy Recommendations on Cybersafety and Combating Cybercrime in the Arab Region. The study provides an analytical overview of the current situation with cybercrime and cybersecurity at the regional and international levels, highlights measures of strengthening and harmonizing efforts to combat cyber-crime and provides a legislative framework for enhancing cybersecurity and confidence in information and communication technology and cyberspace. The document emphasizes the need to reinforce the regulatory and procedural framework for combating cyber threats and raising awareness of individuals and institutions about such risks and their impact on work and personal life [3].

The next step towards achieving cybersecurity was the development of a Draft Convention on International Information Security. The purpose of the Convention is to counteract the use of information technology for violating international peace and security. The draft document provides the obligation of states to cooperate with each other during the formation of an international information security system, guided by the principles of the indivisibility of security and responsibility for their own information space, states should strive to reduce the “digital division” in order to reduce the overall level of threats to information space, etc. The main emphasis is placed directly on information security, and, unfortunately, no special attention is

paid to cybersecurity that has its own characteristics, which complicates the complete regulation of online environment [4].

In addition to the direct regulation of cyberspace with the help of special regulatory instruments, a group of government experts on cybersecurity operates within the UN. A number of divisions, whose field of activity intersects with the online space, are engaged in some issues of cybersecurity, such platforms are ITU, UNIDIR, CTITF Working Group, UNODC, UNICRI [5].

**Conclusion.** Thus, the UN competent authorities are trying to respond quickly to emerging legal gaps in the field of cyber law, but the proposed solutions are often targeted and local. Unfortunately, at the moment there is no fundamental international act that would identify the problems and lay down the principles of ensuring cybersecurity. Perhaps the UN should develop such a document in order to prevent the emergence of further legal conflicts in the field of an operational response to cyber threats both at the international and local levels. There is a need to consolidate at the international level a list of issues that are directly related to the basis of the state of cybersecurity, the definition and classification of types and levels of cyber aggression. The progressive step could be the formation of specialized bodies of an international level competent in countering cyber threats, including outside the territorial jurisdiction of states in exceptional cases.

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## MIGRATION POLICY OF THE USA AT THE PRESENT STAGE

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The article examines the main directions of the migration policy of the USA, analyzes the main legislative changes in the field of asylum and their consequences for the realization of the rights of refugees and asylum seekers.

Purpose of the work – analysis of the latest novelties of the American migration legislation.

**Material and methods.** The main materials of the work are the Immigration act, the United States of America Law on Immigration and Citizenship, Global Compact for safe, orderly and regular migration, the Legal Enforcement Guidance on Discrimination on the Basis of Immigration Status and National Origin. Formal-legal and comparative-legal research methods were used.

**Findings and their discussion.** Modern international reality is characterized by the intensification of social conflicts, including armed conflicts, and, in this regard, the infringement of natural human rights, which provokes the growth of forced world migration. These migration flows are a serious problem for both European countries and the USA. Today, the USA is on the 1st place among the countries with the largest influx of migrants, on the 2nd place is Germany. More than 46 million of the USA population was born in other countries, 11 million are in the country illegally.

In January 2017, D. Trump signed a very tough decree restricting entry to the USA for citizens from 7 states with predominantly Muslim populations, countries with the spread of terrorism in them [1]. The decree caused a number of violent protests, public statements by the heads of major companies, educational centers – Google, Apple, Starbucks, Netflix, etc. Lawsuits, which suspended the decree in 4 states, forced the Presidential administration to soften the wording of the original decree.

In March of the same year, a new decree was issued, which took into account a number of objections of opponents. Along with the construction of the wall on the border with Mexico, it is intended to limit the flow of persons posing a potential threat to the increase in the number of refugees and illegal migrants. Measures to reduce illegal immigration are also enshrined. In particular, it is envisaged to suspend the issuance of repeated long-term visas, it is planned to reduce the annual quotas for the issuance of green cards. The situation of poor legal migrants and green card applicants is complicated by a new ruling from the U.S. Department of Homeland Security.

There are now special raids to check documents in order to identify illegal immigrants and criminal elements in this environment. Those who have broken the law at least once, including minor offenses, as well as serious traffic

violations, are immediately sent to deportation. It should be noted that there are certain settlements in America, which are called «sanctuary cities». In them the law doesn't provide for a procedure of deportation. However, the situation is beginning to change, the federal government is trying through the jurisdiction of the states in violation of this provision still deport a certain category of the population and from them. An example is Washington, where several dozen people were deported in 2017 despite being «sanctuary city».

In connection with the tightening of migration policy, D. Trump canceled the Deferred Action for Childhood Arrivals (DACA) program, which protects young immigrants from deportation. DACA allowed 800 thousand undocumented migrants (dreamers) (who arrived before the age of 16), to apply for protection from deportation. After background checks, they were eligible to apply for a 2-year extension to study and work in the USA, as well as to obtain a driver's license, etc. [2].

At the same time, a number of states have the opposite trend of expanding legal protection for immigrants. Thus, on 2.10.2019, the Commission on human rights of New-York adopted a document that aims to combat discrimination against immigrants. In particular, when using the phrase «illegal alien», the author of the replica may face a fine of up to 250 thousand dollars. According to the document, we are talking about public places, including libraries, medical centers, parks, restaurants, shopping centers, fitness clubs, rental markets. The document spells out specific cases of discrimination that may arise at work, when renting a home or in a public place. For example, the refusal of a realtor to search for housing for immigrants from an Arab country can become the basis for a fine if he believes that the migrant will become a temporary worker and will soon leave the USA. In addition, the Commission on human rights considered that the threat of calling the migration service, as well as the humiliation of a person if he speaks bad english, will be related to discrimination [3].

Foreigners applying to immigrate to the USA will be denied entry unless they prove the ability, either on their own or under insurance, to pay medical expenses. The corresponding order was signed on 4.10.2019 by the President. It should be noted that he justified his decision by saying that immigrants who are unable to pay medical bills become a burden for the health care system and taxpayers. In accordance with this order, foreigners will be required within 30 days after entering the country to either present health insurance or prove that they have sufficient financial means to pay their own medical bills [4]. It should be noted that the act applies only to foreigners applying for immigration to the USA from abroad, but not to those who are already in the USA. The new rules do not cover persons with permanent residence, asylum seekers, refugees and children. At the same time, it applies to spouses and parents of USA citizens, which in turn complicates the situation of those families who are trying to take their parents or spouses to the USA. Due to the fact that the USA is a country of

case law, this order has been banned in a number of states. Thus, judges in the states of New-York, Washington and California have issued injunctions prohibiting its use throughout the country or a separate state and judicial district in respect of persons in the maintenance of the state.

**Conclusion.** Thus, one of the main objectives of the new migration policy of the USA is to reduce migration flows, restrict the entry of new immigrants, reduce the cost of supporting them and redistribute funds to Americans, who live below the poverty line. The result of the implementation of these tasks is a significant reduction in the entry of migrants, which is illustrated by statistical data: in 2019, compared to 2016, the number of arrivals amounted to 30 thousand instead of 110 thousand people [5]. Based on the above, we can conclude about the effectiveness of the implementation of the tasks and the corresponding trend of tightening the migration policy of the USA.

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## **HISTORY OF DEVELOPMENT AND FORMATION OF BELARUSIAN LAWYERS**

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The process of development and formation of the bar is complex and contradictory. The bar can be described as an institution of civil society, which has its own public legal status. It should be noted that the development of the Belarusian legal profession is closely connected with the history of the judicial system and judicial proceedings as well as with the entire state legal system and the social process as a whole.

The origins of advocacy begin in the Statutes of the Grand Duchy of Lithuania. Each of the Statutes has its own historical roots. It should be noted



that already in the XVI century, this institution of civil society received legislative regulation. This emergence is due to the intensification of the socio-economic life of the state and the reform of the entire system of public relations, including in the field of the judicial system and judicial proceedings.

The purpose of this article is to analyze the history of the development and formation of the bar of Belarus, to identify the features of the historical legislative regulation of advocacy.

**Material and methods.** The scientific and theoretical basis was legislative documents in the field of advocacy during various historical periods. While writing the article, analysis, comparison and historical methods were used.

**Findings and their discussion.** Advocacy was first mentioned in the Statutes of the Grand Duchy of Lithuania in 1529. This period was the so-called breakthrough in the field of advocacy because of the significance of the written law, has more important than the custom. Thus, the need for knowledge of laws in litigation. Appears, no importance was given to the status of lawyers, that's why their activities were done by clerks and representatives of the city administration. There were also certain exceptions: this Statute prohibited foreigners to be engaged in advocacy. During this period, the main task of the lawyer was formed: to serve justice, but not private interests.

The 1566 Statute starts that foreigners have the right to engage in advocacy. But again, there were some exceptions: foreigners could engage in advocacy only if there it was a question of the death penalty or dishonor. Permission for the mandatory or free provision of a lawyer was introduced. The provision was considered mandatory when the lawyer participated in cases, the essence of which was to humiliate the prince's honor, at the request of those people "who could not speak and conduct their case in court themselves." A lawyer was appointed free of charge for cases of "the wretched, orphans and widows." If a lawyer cheats his client, he is punished by death.

The 1588 Statute established certain requirements and prohibitions: the judge, the clerk, the head of the administration, and the clergy could not be lawyers. Lawyers were forbidden to put forward new demands, take money and pay debts without the consent of the principal.

The legal profession in the Northwestern Territory of the Russian Empire in 1864 was a class of jurors united by internal self-government, namely, the jury and the external supervision of the highest judicial places.

In 1874, the institution of private attorneys was regulated. Higher education was not necessary, it was enough to pass the exam at the district court and get a special certificate. At the same time, the "Rules on People Eligible to be Attorneys in Court Cases" were approved. It was characterized by the fact that only the people who were issued a certificate of the right to petition in other people's affairs could be attorneys. Such people were called "private attorneys."

The basis for the development of the legal bar in the Belarusian SSR is the decree of the Council of People's Commissars of the BSSR on the organization of human rights in courts on November 26, 1921. Thus, institution, human

rights, was established, under the Nakomat of Justice of the BSSR. A human rights defender could be: a citizen of the republic who had the necessary theoretical and practical training, as well as the right to elect and be elected to the Council. A person who wanted to become a human rights activist had to pass a certain test given by the People's Commissar of Justice.

The action of the Institute of Human Rights March 25, 1922 get permission in the Regulation on Legal Advice and the Bureau of the College of Human Rights Defenders. The institute of advocacy in the republic was regally approved on June 26, 1922. People's Commissariat of Justice of the BSSR July 26, 1922 approved of the regulation on the bar association, which regulated in detail the organization and activities of this association in details.

In September 4, 1922 The People's Commissar of Justice of the BSSR the first bar association was approved. In October 1922, this bar was given to the High Court, to monitor its activity. The changes in the organization of the bar were associated with the changes in the administrative-territorial division and the changes in the judicial system of the republic. Thus, in 1925. The bar associations were formed at district courts.

In August 16, 1939 The Council of People's Commissars of the USSR approved the provision on the bar in the USSR. Regional bars of advocates began their activity in the republic, and the all-Belarusian bar was abolished.

In the late 80s and early 90s there was a change in the organization and activity of the bar. These changes were associated with transformations, which served as the judicial reform, which was April 23, 1992. It was approved by the Supreme Council of the Republic of Belarus.

**Conclusion.** Having familiarized with each of the stages, it can be concluded that advocacy should form a proper understanding of the right of citizens, its essence and role in civil society and the state. Thus, we can say that each of the stages of the formation of the bar has its own history and significance. It is necessary to highlight the fact that the bar has passed a difficult, but generally progressive path of evolution, which has a long history. The path of development is not completed, it will continue as long as the implementation of judicial and legal reform continues in the Republic of Belarus. The process of perfection is endless and multifaceted, like life itself.

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## GENDER ASPECTS OF THE GUIDING PRINCIPLES ON BUSINESS AND HUMAN RIGHTS

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Radical changes in gender policy arose on the world stage in the 60s of the XX century after the sexual revolution of the “second wave” of feminism. Since then, most countries of the world have made significant changes to national legislation aimed at equalizing the rights of men and women in all spheres of public life. But the problem of discrimination against women in various spheres of life is still there. Now we are witnessing the emergence of new relationships in the international arena - human rights and business. As noted the Working Group on the issue of human rights and transnational corporations and other business “Women experience adverse impacts of business activities differently and disproportionately. They may also face additional barriers in seeking access to effective remedies. However, neither states nor business enterprises have paid adequate attention to gender equality in discharging their respective obligations and responsibilities under the Guiding Principles” [2]. That is why women require additional protection in business.

Purpose of the article: to study Gender guidance for the Guiding Principles on Business and Human Rights and to analyze the possibility of implementing these principles in the Belarusian legislation.

**Material and methods.** The following observations are based on the study the Report of the Working Group on the issue of human rights and transnational corporations and other business enterprises (12 July 2019) and The UN Guiding Principles on Business and Human Rights.

For the analysis of the collected material were used method of analysis, method of synthesis and comparative legal method.

**Findings and their discussion.** The UN Guiding Principles on Business and Human Rights endorsed by the UN Human Rights Council in June 2011. Principles include general requirements for states to protect human rights in business. These requirements include three elements: protection, compliance, and remedies. A person acts as a subject, without reference to gender. But over time, it became clear that women require additional protection in business. After all, established gender stereotypes make them vulnerable categories in this area of public life. So in summer 2019 The Working Group on the issue of human rights and transnational corporations and other business enterprises developed Gender guidance for the Guiding Principles on Business and Human Rights. They include 31 principles for the additional protection of women's rights.

The main goals are to provide appropriate and corporate recommendations on gender mainstreaming. Working Group on the issue of human rights and transnational corporations and other business enterprises proposes a three-stage gender system:

- 1) gender responsive assessment;
- 2) gender transformative remedies;
- 3) gender transformative measures.

We see that this system is aimed at two main subjects: the state and business. Thus, the state should first of all bring laws into line with international standards in the field of protecting the rights of women and give women effective protection. Principle 1 states: “States must take appropriate steps to ensure that all business enterprises operating within their territory and/or jurisdiction respect women’s human rights. All State policies, legislation, regulations and adjudication to prevent, investigate, punish and redress all forms of discrimination, harassment and violence against women should integrate the gender framework and guidance for the Guiding Principles on Business and Human Rights” [2]. Also a very important point: states should provide enterprises with appropriate guidance on how to effectively address, in particular, gender issues, recognizing the specific problems women may face.

Business, in turn, must eliminate discrimination against women in all aspects of employment, including the wage gap between men and women. Unhindered access for women to leadership positions is needed. Corporate advertising should avoid promoting sexual stereotypes.

It should be noted, that the Working Group on the issue of human rights and transnational corporations and other business enterprises calls on states and businesses to control each other. For example, the existence of a discriminatory law does not mean that a business must comply with this law.

In order to eliminate all forms of discrimination against women and achieve substantial gender equality, states and commercial enterprises should work with women's organizations and all other relevant actors to ensure systematic changes in discriminatory power structures, social norms and a hostile environment that impede women's equal rights and human rights in all areas.

How to make the Gender guidance for the Guiding Principles on Business and Human Rights work in the Republic of Belarus? In general, the legislation of the Republic of Belarus is based on the principles of equality of men and women and does not contain norms that directly or indirectly discriminate against citizens on the basis of sex. Our state has signed the Convention on the Elimination of all Forms of Discrimination Against Women, as well as ratified the Optional Protocol to this Convention. The main document defining the state gender policy of the Republic of Belarus and the priority directions for its implementation is the National Plan of Action for Gender Equality in the Republic of Belarus for 2017 - 2020 (hereinafter - the National Plan). However, there are currently no specific points in the National Plan that regulate the rights of women in business. We believe that the next National Plan should be adopted taking into account the provisions on the Guiding Principles on Business and Human Rights.

**Conclusion.** A globalizing world presents us with new challenges. There are new areas of life that are not yet fully regulated by law. But there are things that

remain constant. For example, issues of discrimination against women. When we say that it is necessary to resolve the protection of human rights in business, we must separately discuss the situation of vulnerable groups. That's why the Working Group on the issue of human rights and transnational corporations and other business enterprises were accepted the Gender guidance for the Guiding Principles on Business and Human Rights. We believe that following these principles will help protect women's rights in business. And the Republic of Belarus needs to be implemented the Guiding Principles on Business and Human Rights by adding them to a new National Plan of Action for Gender Equality.

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## **INDICATORS FOR ASSESSING THE EFFECTIVENESS OF THE SYSTEM OF REGION HUMAN POTENTIAL FORMATION**

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The formation of high-quality human potential of states is constantly taking place against the background of social problems in the context of the global economic crisis. Financial resources are limited in almost all countries. At the same time they could solve these problems. This encourages the search for new ways to use and distribute these resources effectively. Investments in the development and improvement of human potential could play an important role in solving social problems and contribute to sustainable economic growth and development of the state. The formulation of a system of indicators to assess the effectiveness of human potential could be the basis for the development of a rational model of using the financial resources that are directed to its formation. All this caused the relevance of the research topic.

The purpose of the study: to characterize the essence of the category “human potential” and to determine the indicators of its assessment at the regional level.

**Material and methods.** The scientific research is based on the works of domestic and foreign scientists, as well as analytical data of the national and international statistical agencies. The study used the following scientific methods: cognition, analysis and synthesis, comparative analysis.



**Findings and their discussion.** The complexity of studying the category of "human potential" and the study of its economic essence lies in the need to consider it in the context of several areas of science, taking into account its social and economic components.

Having analyzed various scientific works of domestic and foreign authors, we came to the conclusion that the main specific features of its essence will be [1, p. 264]:

- consistency, expressed in the complexity of the system of its qualitative characteristics, relationships and interdependencies;
- dependence on external factors that completely create the environment of human potential formation;
- the complexity of its structure taking into account the physical, spiritual, social and cultural characteristics of the individual;
- the dynamics of the process of human development;
- nontransportability of the process of formation and using of human capital due to the presence of its carrier hidden qualities that could manifest themselves when creating certain conditions.

Human potential should be considered as a strategic component of human resources, as it provides an opportunity for the development and adaptation to market changes.

Critically comprehending the content of different approaches, we could identify the main components of the category «human potential»:

- human capital, which is a certain form of manifestation of human potential in economic systems due to its involvement in the production of economic goods [2, p.314];
- socio-economic conditions in which its formation will take place, i.e. conditions directly affecting the quality of life, enabling the creation, development and use of human capital.

The main directions of investments in human potential at different levels of the economic system are investments in:

- health sector;
- the sphere of education;
- the sphere of cultural and leisure activities;
- the social policy;
- the physical culture and sports.

The three main indicators of the quality of the human potential formation process could be:

1. An aggregate indicator of the life expectancy of the population of region, taking into account health, longevity, fertility and other related indicators;

2. An aggregate indicator of the educational sphere: access to education, coverage of primary, general, secondary and higher education of different segments of the population of the region;

3. Gross national income, reflecting not only the level of life of the population, but also the overall economic development of the region.

The assessment of input and output flows can show the effectiveness of the system of human potential formation separately for each region.

At the moment, the volume of investments in socially important areas is constantly adjusted [3]. This is also reflected in the dynamics of the main indicators of quality of life.

**Conclusion.** However, it is necessary to remember the migration capacity of the human potential. Therefore, it is necessary to create not only conditions for the formation of human potential in the region, but also conditions for its preservation.

Three groups of indicators need to be taken into account in the process of assessing human potential at the regional level:

- Indicators of qualitative characteristics of accumulated human capital.
- Indicators of quality of life of human resources.
- Indicators of the quality of socio-economic conditions.

Thus, competent management and optimization of the process of investing in human development will directly affect the quality of the reproduction process of human capital, which implies effective financial management of both individual stages of the production process and the entire production cycle.

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## LEGAL CULTURE OF MODERN SOCIETY

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A necessary condition for the formation of the rule of law is a high level of legal culture in society. Legal culture plays the role of a special social regulator, which affects almost all spheres of life and citizens.

Currently, there is no single approach to the definition of the concept of "legal culture", which causes many problems of understanding and formation of the legal culture of modern society. First of all, this is the legal illiteracy of the population, the complicated process of lawmaking, the inconsistency of normative legal acts of reality, as well as the undeveloped ideology of the rule of law, as a result of which legal nihilism and the denial of moral principles are gradually developing in society [1, p. 364].

The purpose of this article is to study the influence of legal nihilism on the formation of the legal culture of society and, on the basis of this, to determine ways to overcome emerging problems in this area.

**Material and methods.** In the process of preparing this work were applied scientific research and methodological materials of Russian and Belarusian scientists. An analysis of theoretical and regulatory legal sources, a logical method and a system analysis method were used as research methods.

**Findings and their discussion.** In the framework of the axiological approach, legal culture is understood as a system of prevailing moral and legal values, attitudes and ideals that are reflected in the mass legal consciousness and embodied in legal activity.

The peculiarity of legal culture lies in the variety of indicators that are important for achieving a certain level of its development in modern society. Thus, the legal culture involves:

- high quality of the law-making process, implementation of law;
- an adequate level of legal thinking and psychological perception of legal reality;
- awareness of specific methods of legal activity of law enforcement agencies, the results of the implementation of the requirements of legality in the form of a stable and stable law and order [2, p. 434].

Legal nihilism today opposes legal culture, the essence of which is a negative attitude to law, law and legal forms of organization of public relations. The essence of nihilism consists in a general negative, negative, disrespectful attitude to law, laws, normative order, and from the point of view of the roots, reasons for legal ignorance, inertia, backwardness, legal ill-mannered majority of the population [3, p. 237].

The emergence of legal nihilism in society initially comes from the state itself. In such a society, where legal nihilism is manifested in the activities of the state itself, it is impossible to foster a positive attitude to existing law, since the right is erroneously understood as the order established by current regulatory legal acts, including departmental ones. As a result of this, mass legal nihilism is beginning to take shape in society. In addition, the current standards are also not respected by state bodies themselves, as well as by officials, finding “reasonable” explanations for their actions.

In overcoming legal nihilism, the most important role belongs to legal upbringing. Means of legal upbringing include: legal propaganda, legal training, legal practice, self-education. The basis of the use of all these means is the implementation of legal awareness, involving the transfer, perception, transformation and use of information about the law and practice of its implementation. A special place here is occupied by the problem of the “legal minimum”, a certain mandatory level of knowledge of law (level of legal awareness) that every citizen of any society should have, regardless of its social status [1, p. 366].

Legal education is a way of transferring theoretical legal knowledge to the object of education. The purpose of legal education is to form a legal consciousness and legal culture, bring knowledge about the law into the system, develop legal thinking and legal interest.

The content of legal education is introducing people to knowledge about the state and law, legality, rights and freedoms of an individual, understanding the essence of legal doctrines, developing a stable orientation of law-abiding behavior among citizens. Of course, some legal values, having a basis and origin in moral standards, are assimilated by a person in the process of diverse social practice. However, the goal of legal education is “the creation of special tools to convey to the mind and feelings of each person legal values” [1, p. 365].

The current legislation affecting the rights and freedoms of citizens is often characterized by whiteness, its provisions are not always clear and understandable, contain many reference norms and conflicts. In addition, normative legal acts often change and is supplemented in connection with which, citizens can not always track these changes.

Each democratic rule of law is based on fundamental principles that play an important role in the regulation of public relations. Article 7 of the Constitution of the Republic of Belarus enshrines the principle of the rule of law, which is implemented through the obligatory publication or bringing to the public of the public by other means provided for by the law of adopted normative acts of state bodies. This requirement can rightfully be considered thoughtful, since the legal awareness of the population is a key way of influencing the legal culture [4, p. 52–55].

**Conclusion.** Legal culture is a necessary condition for a citizen to consciously fulfill his duty to society, which helps to overcome backward views,

deviant behavior of people, and to prevent cases of arbitrariness and violence against a person [5, p. 52-55].

The process of legal upbringing should continue uninterrupted, starting from school and throughout life. It is necessary to legislatively consolidate the participation of each social institution (family, educational institutions, public authorities, law enforcement agencies, etc.) in the formation of the legal culture of citizens. To increase the level of legal culture, it is necessary to improve the current legislation and the process of its implementation; review of personnel policy of the state; strengthening the discipline of civil servants; legal education of all categories of citizens; outreach of law.

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## **RELEVANT PROBLEMS OF IMPLEMENTING INFORMATION RIGHTS ON THE INTERNET**

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The virtual space of the Internet presents new opportunities for the realization of information rights of the human and citizen. The development of the information society is creating new information rights, one of which is the right to be forgotten.

The aim of the study is to identify and analyze the problems of implementing information rights on the Internet.



**Material and methods.** The study was based on the norms of international and national information legislation, scientific publications, Internet information legal resources. The study used scientific methods of analysis, specification, analogy, comparative-legal and formal-legal methods.

**Findings and their discussion.** Virtual life of society, as well as real life, needs legal regulation. The Internet creates a virtual information environment in which different social relations arise, change and stop and it was therefore important to ensure the information rights of citizens in the context of the formation of an information society.

Human information rights can be defined as a set of human and citizen's rights in the search, receipt and dissemination of information.

At present, there is a tendency to form new information rights, characteristic exclusively of the online environment which connected with the right on information and also informational safety.

The global Internet is becoming a place for human rights such as the right to access, search, receive and disseminate information, freedom of expression, the right to protect personal data, the right to protect dignity and reputation, and the human right to be forgotten by others.

The right to protect dignity and reputation is most often violated on social media. The mechanism for deleting this information because of defamatory nature and inaccuracy should be improved. The right to be forgotten is the right of a person to demand the removal of irrelevant and inaccurate information about himself.

Posting this information can seriously damage a person's reputation, career and family life.

The right to oblivion is enshrined in the legislation of the Russian Federation (The Law "On amendments into the Federal law " On information, information technologies and protection of information " and articles 29 and 402 of the Civil procedure code of the Russian Federation"). According to the provisions of this law, a citizen of the Russian Federation may apply to the owner of the search engine and request the removal of links to its pages from the search. However, the law does not apply to internal search on social networks [1].

The law provides for the possibility of deleting irrelevant information regardless of whether it harms the honor and dignity of the applicant. Irrelevant information is information that has become irrelevant due to subsequent actions of the applicant or events. In this case, such action can be a change of place of work. As a result, information about previous work in the business directory is no longer relevant.

Citizen of the Republic of Belarus according to paragraph 6. article 153 of the Civil code of the Republic of Belarus has the right to appeal to the court with an application for recognition of the information spread about him as untrue, discrediting his honor, dignity or his business reputation [2]. Then, on the basis

of a court decision, to demand the removal of information from the source of such information – an Internet resource. However, this provision is only a prerequisite for securing the right to oblivion in the legislation of the Republic of Belarus.

In the legal regulation of relations arising in the information space, it is necessary, first of all, to take into account the fundamental human rights enshrined in the universal Declaration of human rights and the European Convention on human rights. The right to access the Internet is fundamental, because without it a person cannot become a subject of these public relations, and therefore does not have the opportunity to exercise their rights and freedoms in the information space.

To date, human rights in the information space have been legislated in the resolution of the UN General Assembly of 18 December 2013, which proclaimed that a person, being in the online space, has the same amount of rights as in real life, including the right to privacy [3].

**Conclusion.** Thus, the development of the information society changes the content of some rights and freedoms, including information. The author defines human information rights as the totality of human and civil rights in the search, receipt and dissemination of information. The virtual space needs legal regulation both at the national and international levels. It is necessary to consolidate new information rights in the national legislation of the Republic of Belarus. We propose to consolidate the right to oblivion in the legislation of the Republic of Belarus on the basis of the experience of the Russian Federation.

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## **EUROPEAN UNION AND THE EURASIAN ECONOMIC UNION. INTERACTION AND PROSPECTS FOR RELATIONS**

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The European Union and the Eurasian Economic Union are impressive political and economic associations in the space of Eurasia. Relations between the two unions are extremely important in the framework of the globalization process. However, at present there is no integration and effective cooperation between the EU and the EAEU.

The purpose of the work is to suggest possible scenarios for the development of EU-EAEU relations and choose the most acceptable one.

**Material and methods.** The material of the work was the regulatory framework of the EU and the EAEU. The main methods of the research: generalization, comparison, analysis.

**Findings and their discussion.** The European Union is a political and economic association of 28 countries, created in 1993 with the goal of creating a single unlimited economic space. The EU structure is called the “system of three pillars”: the first pillar is the European Communities and Euratom, it serves for economic integration. The second pillar is considered to be the common foreign and security policies of the participating countries (political integration). The third pillar is the cooperation of the police and the judiciary in the judicial system (judicial integration) [2].

For the same purpose, in 2015, the Eurasian Economic Union replaced the Eurasian Economic Space, which existed from 2000 to 2014, which included Belarus, Russia and Kazakhstan. A little later, Armenia and Kyrgyzstan joined these three countries [1].

The European Union is the largest trading partner of the Eurasian Economic Union, in turn, for the EAEU European Union in terms of trade it is in fourth place.

Earlier, the creation of a free trade zone “From Lisbon to Vladivostok”, a single economic space, which was the goal of long-term cooperation and interaction between the two unions (EU - EAEU) as a result of the integration of their economic spaces. This initiative came from the President of the Russian Federation, Vladimir Putin, in January 2014, and in February of that year, it was supported by the President of Kazakhstan. Support was also expressed by Stefan Füle, EU Enlargement Commissioner for Enlargement, and Angela Merkel, German Chancellor. [3]

Therefore, at present, all relations are built on the basis of bilateral relations between the European Union and individual EAEU countries. For example, consider the branch of the EU-Belarus relationship. In September 2019, the Republic of Belarus was visited by EU Ambassador Dirk Schuebel. He noted that the EU’s policy towards Belarus is stable and will remain so. In 2015, sanctions were lifted, and at this stage even the introduction of a visa-free regime is being discussed.

In 2015, German Chancellor Angela Merkel announced that she supported the creation of an FTZ on the basis of the EU and the EAEU. According to some experts, this could happen in the next 10 years. Of course, in the process of rapprochement itself, a number of problems will arise. The EU and Russia see integration in different ways and want to extract as much benefit from this process for themselves as possible.

The factor that influenced the relations between the EU and the EAEU was the PRC's “One Belt, One Road” initiative, which suggested the creation of

a land trade route from China to the EU through Russia and the countries of the common neighborhood. This gave rise to Russia to propose the creation of "Greater Eurasia" on the basis of three equal poles – the EAEU, China and the EU. The EU sees this in the form of a single conjugation of Europe and Asia. The EU is trying to expand the borders of its power, and Russia, including the EAEU member states, suggest the possibility of pairing on the basis of cooperation. At the moment, all initiatives on this issue are under development and approval of a specific implementation plan. Therefore, we can say that in the near future, participants in this initiative will come to a consensus.

In general, the relations of the EU-EAEU for 2015-2018 can be characterized by a period of gradual rapprochement. By the beginning of 2019, the situation in relations between the EU and the EAEU is only improving. At this stage, two scenarios can be identified:

**Cooperation.** Under this option, the EU and the EAEU will continue to hold consultations, negotiations of an official or unofficial nature on further ways of integration.

**Confrontation.** In the space of “common neighborhood”, the EU and the EAEU can dramatically intensify the struggle. The EU will influence the EAEU states, and the EAEU will influence the EU member states, which, in addition to negative consequences, can lead to a positive effect in the fields of economy and politics, and to cultural convergence of countries [4].

**Conclusion.** We believe that the first option, the option of cooperation would be more relevant and effective. The EU and the EAEU should make concessions to each other, stop considering each other as an adversary, continue negotiations and develop agreements. A constructive approach will contribute to the development of relations between the two unions and will initiate a quick integration process.

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## CONCEPT AND FEATURES OF SUBJECT OF LAW

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The processes of globalization, democratization, humanization and digitalization of society lead to the complication of legal relations, modification of legal entities at the present stage.

The purpose of the study is to analyse the concept and features of “subject of law” in the scientific works of domestic and foreign legal scholars, in the legislation of the Republic of Belarus and other states.

**Material and methods.** The main materials of the study were the Constitution of the Republic of Belarus, the Civil Code of the Republic of Belarus, the Law of the Republic of Belarus “On Citizenship of the Republic of Belarus”, as well as scientific and theoretical approaches to the definition of “subject of law” of the researchers E.N. Trubetskoy, N.N. Alekseev, A.G. Bratko and others. Research methods: analytical, systematic, formal and legal, interpretation of the law rules, comparative and legal, and specific legal analysis.

**Findings and their discussion.** The concept of “subject of law” for some scholars is still debatable. The problems of determining of “subject of law”, its properties and functional purpose are actual. The interpretation of the definition of “subject of law” depends on the authors’ commitment to a particular concept of law understanding. So, the main provisions of the theory of positive law are characterized by the definition of Professor G.V. Maltsev (1935–2013), who understands the subject of law as either a person or a certain social organization, endowed with rights and obligations, in accordance with the laws of the state [1, p. 33].

According to Professor Bratko A.G., the subject of law is a person with legal capacity and ability to act. He defined “legal capacity” as the ability to be a bearer of subjective rights and legal duties, and “ability to act” as the ability to exercise the rights and duties belonging to a person by his actions [2, p. 162].

A significant contribution to the concept of “subject of law” was made by the well-known pre-revolutionary lawyer, supporter of the natural law theory, E.N. Trubetskoy (1863-1920), recognizing as the subject of the law anyone who is able to have rights, regardless of whether he actually uses them or not [3, p. 160]. A famous jurist, researcher of philosophy of law N.N. Alekseev (1879-1964), trying to reconcile the positivist and natural-legal interpretations of the subject of law, invested in it a theoretical, value and practical content, emphasizing their historically changing nature [4, p. 83].

Doctor of Law, specialist in Civil Law N.S. Malein (1920-1999) associates the subjects of law with the presence of three legal properties: legal capacity, free will of a person (choice of actions and adequate decisions), legislative fixation in this quality [5, p. 14].

According to the legislation of the Republic of Belarus, the subjects of law can be: the state, administrative-territorial units, individuals and legal entities.



In the Constitution of the Republic of Belarus, the subjects of law are specified by the following words and word combinations: the state of the Republic of Belarus, the people, the citizens, everybody and others.

Individuals are the most numerous category of legal entities. They include: citizens of the Republic of Belarus, foreign citizens, stateless persons, refugees, men, women, etc.

According to the Law of the Republic of Belarus dated 01.08.2002 No. 136-3 “On Citizenship of the Republic of Belarus”, citizens of the Republic of Belarus are persons holding the citizenship of the Republic of Belarus and having acquired the citizenship of the Republic of Belarus. Foreign citizens of the Republic of Belarus are persons who are not citizens of the Republic of Belarus and belong to the citizenship of another state. Stateless persons in the Republic of Belarus are persons who do not have evidence of their belonging to the citizenship of another state [6].

The legal personality of an individual includes legal capacity and ability to act. Legal capacity is the enshrined in law ability of the subject of law to have subjective rights and legal duties. As a rule, it begins from the moment of birth and ends with death. The legal personality of a legal entity appears in an inseparable form of legal capacity and ability to act, and begins from the moment of state registration, entry into the Unified State Register of legal entities and individual entrepreneurs and is lost from the moment of exclusion from it.

In accordance with Art. 16 of the Civil Code of the Republic of Belarus, legal capacity as the legal quality of a subject of law is recognized equally by all citizens of the Republic of Belarus. According to paragraph 3 of Art. 20 of the Civil Code of the Republic of Belarus: “All citizens of the Republic of Belarus have equal ability to act, unless otherwise provided by law” [7].

Ability to act is the established by law ability of a subject to acquire, exercise subjective rights and legal obligations by his actions. It depends on age and sanity, ability to realize, manage and control one’s actions, be able to bear legal responsibility, can be complete and incomplete (partial).

In paragraph 1 of Art. 44 of the Civil Code of the Republic of Belarus, a legal entity is an organization that owns, maintains or operates separate property, bears independent responsibility for its obligations, can acquire and exercise property and personal non-property rights on its own behalf, fulfill duties, be a plaintiff and defendant in court, has been registered in the established manner as a legal entity or recognized as such by a legislative act [7].

Based on an analysis of the legislation of the Republic of Belarus, it can be concluded that the following main functions are inherent in legal entities at the present stage of development: registration of collective interests, consolidation and capital management, limitation of entrepreneurial risk.

To be recognised as a subject of law, an organisation needs to possess the following defining properties: organizational unity of a legal entity, property isolation, independent civil liability, legal entity speaking on its own behalf.

For comparison, one can consider the Civil Code (CC) of Germany dated 01.01.1900 (as amended on 01.04.2019), in which the characteristic of individuals also includes delictual capacity (the ability to bear civil liability for one's unlawful actions). Here, legal entities are divided into two types: societies (associations of persons having their own structure, common goal, ensuring organizational unity) and institutions (their activities are based on the signing of a constituent document, according to which property is allocated for conducting business) [8].

In U.S. law, only one feature is used to determine the subject of law – legal capacity. U.S. legal entities include: sole proprietor, limited liability company, partnership and corporation [9].

**Conclusion.** Thus, we see that at the present stage in the scientific and legal literature, in the legislation of different countries there are insignificant, but still different formulations of the concept and signs of “subject of law”. Moreover, in connection with the increasing complexity of economic relations at the present stage and the development of such new branches of law as: economic law, information law (network law, Internet law, robot law), new types of subjects of law appear. Already existing legal entities receive their electronic counterpart, paper sources of law are duplicated in an electronic version. Digital intermediaries appear (bloggers, providers, IP-addresses), the issues of endowing the legal personality of an electronic person, a quasi-legal entity, artificial intelligence and a robot are discussed. An electronic state, supranational communities are being formed, digital law is being created [10]. The difficulty in personifying the legislative consolidation of new electronic subjects of law requires the improvement of doctrinal theory, law enforcement practice and legalisation. The task of a lawyer is to foresee trends and create adequate conditions for legal regulation.

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## PREVENTION OF CRIME IN YOUTH ENVIRONMENT

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The research topic is relevant, since offence in the youth environment is a part of general crime, and therefore is influenced by the criminal situation that has developed in society. This influence is of particular importance, since the objects of influence are both adolescents and young people undergoing socialization through the development of a future profession, getting an education, participating in various types of sociocultural and political activities.

The purpose of the study is to reveal the main directions of preventing youth offences.

**Material and methods.** The study of the problems of crime prevention in the youth environment is based on an analysis of the current legislation and statistical materials. The examination of the preventive effect on the behavior of young people required the use of such methods of scientific knowledge as statistical, logical, systemic analysis, as well as synthesis, induction and deduction.

**Findings and their discussion.** In the Republic of Belarus, issues of offense prevention in the youth environment are given considerable attention both from the side of law enforcement agencies and from the legislative branch. Legal regulation in this area is carried out by two laws: “On the basis of the system for the prevention of neglect and juvenile delinquency”, and the law “On the basis of the activity on the prevention of delinquency”. The country has created a legislative framework that defines both the subjects of prevention and the main directions of preventive work with various categories of the population. However, the state has not yet been able to achieve a permanent decrease in crime. So, according to the Ministry of Internal Affairs, in January-September 2019, 66.7 thousand crimes were registered in the republic, or 106.5% of the level of January-September 2018 [1].

The priority task of the state and the backbone social institutions (family, church) is the fight against crime in all age categories. Youth crime requires

special attention, because in fact, youth is the generation that should replace the generation of parents and take responsibility for the fate of society. It should be noted that young people are a heterogeneous age and social group. Some experts include young people aged 14 to 30-35 years old into this group. Therefore, it seems reasonable to divide it into at least two subgroups: adolescents from 14 to 18 years old and actually youth - from 18 to 35 years old. And in the second subgroup, the age spread is too large. Indeed, by the age of 25-27, a significant number of young people form families, acquire a profession, acquire housing and become parents. Accordingly, in this subgroup there is a transition to a new system of values based on the desire for a stable, safe, creative life. Therefore, the focus of attention on youth crime prevention structures should be a group of young people aged 14 to 25 years.

Criminologists state that every third person who has served his sentence in isolation from society, again takes the criminal path. Therefore, the priority is to prevent young people from committing offenses. But no less important is the task of preventing relapse among those who violate the law and serve their sentences in prison.

Studying the socio-psychological mechanisms of the action of punishment, A. R. Ratinov formulated a number of postulates that are very significant in terms of increasing the effectiveness of crime prevention:

- the motivating significance of punishment is the more intense, the closer the moment of its application;
- the precautionary role of punishment is the higher the more inevitable it seems to the subject;
- the stimulating power is the higher, the greater the good that is lost by the criminal as a result of its use;
- the success of preventive punishment motivation is inversely related to the degree of prevalence and sustainability of prohibited behaviors;
- the success of preventive motivation depends on the proportionality of punitive sanctions and forbidden behavior;
- the degree of motivational effect of the punishment depends on how much the subject considers the prohibited action as acceptable, desirable and proper [2, p. 175].

It seems that these postulates cannot act equally effectively in relation to all categories of offenders. The reaction to the threat of punishment may differ depending on the level of intellectual development, education, social background and other factors.

Today, the system of criminal penalties applicable to minors should be reviewed in the direction of their mitigation. After all, staying in places of deprivation of liberty leads to a violation of positive social ties, loss of contact with family, relatives and friends. It is necessary to differentiate and individualize as much as possible the responsibility of minors, taking into account the strength of the offense committed, as well as their personal characteristics, reasons and conditions for the commission of an unlawful act. If

it is possible not to isolate the minor from society, such an opportunity should be taken. If the offense is not socially dangerous, measures of legal liability should be replaced by measures of public influence. The very methods of working with juvenile offenders in places of deprivation (restriction) of liberty should be as humane as possible. After all, the offender is a person, a person who has made the wrong choice, but who has the right to correct his life path.

What society can offer young people who have been released? It seems that it is necessary to begin their preparation for civilian life already in places of isolation. It is about getting a profession, and for young people with a general secondary education - also about getting a secondary special or higher education. As for obtaining a profession, such an opportunity has been realized in our country. Things are worse with getting secondary specialized and higher education. So, for example, the only higher education institution that took part in the European Distance Learning Program for Prisoners in agreement with Ministry of Internal Affairs, was Minsk Innovation University. However, in the current academic year, the implementation of this program has been suspended.

In addition, in places of deprivation (restriction) of freedom, the work of structures whose activities are aimed at the re-socialization of personality and adaptation to life in freedom should be improved. In particular, it is necessary to expand the staff of psychologists and social educators. And their training or retraining should be entrusted to educational institutions of the Ministry of Internal Affairs.

The issues of employment and obtaining (continuing) education become relevant for young people after they are released. Due attention should also be paid to the organization of youth leisure. An urgent problem for young people is the availability of cultural and leisure facilities (sports sections, gyms, exhibition centers, clubs). The solution to this problem cannot be solved without budget funding. It seems that the practice of creating yard leisure organizations should be expanded, when sport courts are created on the territory of residential areas, and various sportive equipment is installed. Access to them should be as free as possible.

**Conclusion.** Prevention of offenses in the youth environment involves the creation of a set of measures aimed at finding a job, getting an education, organizing leisure activities, and re-socializing persons serving sentences in places of deprivation (restriction) of liberty.

The Republic of Belarus has created a legislative framework that allows for effective work on the prevention of youth delinquency. In particular, the subjects of prevention were identified, the main directions of their activities, the order of interaction with public authorities were outlined.

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## **PEDAGOGY OF CHILDHOOD IN THE MODERN CONTEXT: PROBLEMS AND PROSPECTS**

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### **FORMATION OF THE FOUNDATIONS OF FINANCIAL LITERACY IN PERSONS WITH INTELLECTUAL DISABILITIES**

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Financial literacy can be defined as the ability to make informed decisions and take effective actions in areas related to financial management, for the implementation of life goals and plans in the current and future periods [1].

Programs designed to build financial literacy of young people should establish a direct link between the knowledge gained and its practical application, to assist in the understanding and use of financial information in the current and long-term future, to focus on the life cycle and life strategies of participants, to educate responsibility for financial decisions taking into account personal safety and well-being. To have a positive and lasting impact on participants, financial literacy programs for children should be based on modern and understandable examples from real practice, prepared and presented to students with the participation of representatives of education and the professional community [2].

Such researchers as L. V. Kuznetsova, I. M. Bgazhnokova, A. A. Kataeva, M. G. Strebeleva were engaged in studying of questions of formation of financial literacy at pupils with intellectual insufficiency. The relevance of this issue in the regular and extracurricular determined V.P. Grikhanov, S.G. Abassova, E. E. Kolosova and others.

The aim is to study the peculiarities of financial literacy formation among the graduates of the auxiliary school.

**Material and methods.** A targeted study of the level of formation of key components of financial literacy among graduates of secondary schools who continued their education in special groups of the lyceum was conducted in February-March 2019 on the basis of the EI «Ull'skiy Lyceum named after L. M. Dovator». The total number of persons involved in the study was 20 people diagnosed with F70 according to ICD -10. The age range of subjects-from 17 to 19 years. The study of the level of formation of the foundations of financial literacy of students with intellectual disability was carried out in the following areas: - knowledge of money and money transactions; – ideas about saving money. For the study we have developed a diagnostic set of tasks.

**Findings and their discussion.** The study of the ability to determine among the coins from different countries only Belarusian, showed that 100% of

students know Belarusian coins and know how to determine them among other offered. At the same time, 20% of graduates of vsopomgatelyh schools can name which country the other presented coins belong to. For example, the subject Slava I., when selecting only Belarusian coins, was able to name Russian, Polish and Kazakh coins.

The study of the ability to correctly count a certain amount of money and correctly determine the amount of money showed that only 10 % of the subjects coped without errors with this task, 20 % - were able to perform only one of the two tasks, and 70 % - did not cope with the task in full. For example, during the survey, the surveyed Artem sh. instead of 39 cents counted 3 rubles 90 cents, instead of 1 ruble 90 cents counted 1 ruble 9 cents. When determining the amount of money presented in the diagnostic task (2 rubles 16 cents), Ilya V. said that it is 21 rubles 60 cents.

The study of the ability to exchange coins bills and Vice versa children with intellectual disabilities showed that 40% of the subjects cope with this task without errors, 50% can perform only one of the proposed operations (cope with the task partially), 10% were unable to perform this task. For example, the subject Danil O., when exchanging banknotes with a face value of 5 rubles, used two coins of 2 rubles. The relative success of this task is associated with the prevalence of such operations in everyday life.

The majority of the subjects made errors related to the inability to translate monetary amounts into a common denomination and a lack of understanding of this need. For example, when solving a household financial problem " " a Portion of borscht costs 49 kopecks., the second course - 1 p. 10 kopecks., salad-44 kopecks., compote-15 kopecks., bun-50 kopecks.", the subject Anton K. simply wrote the answer 268, not analyzing nor condition quests, nor paying attention on units of measure. When providing him with training assistance from the experimenter, the student insisted on the correctness of his answer, which indicates and uncritical to the results of his activities and the formality of the diagnostic task.

The study of the skill to calculate the balance of the sum of money showed that 70% of students with intellectual disability make mistakes both related to the correctness of calculations and the need to transfer the proposed sums of money into single units of measurement, only 30% of students performed calculations without errors, but needed a reminder to transfer the components of arithmetic For example, Ignat L. when performing a diagnostic task, where it was necessary to calculate how much the mother would receive change, wrote 14 p. 80 kopecks instead of 13 p. 20 kopecks. In solving this problem, Kostya K. determined that the surrender will be equal to 14 p. 5 kopecks., and Arseny K. received the following answer-10 p. 27 kopecks.

Qualitative analysis of the results of studying the ability to calculate the cost of goods (initial data-the cost of a kilogram of goods, find the cost of the

specified number of grams of goods) by persons with intellectual disability showed that only 10% of the subjects coped without errors with this task. 90% of students with intellectual disability did not cope with the task, and all of them refused to start solving this diagnostic problem.

Significant difficulties were caused by diagnostic tasks for Lyceum students with intellectual disabilities, aimed at studying their ability to save and make more profitable purchases, to determine unnecessary spending. These skills also go into the structure of financial literacy. Most students with intellectual disability (60% to 100% depending on the content of the diagnostic task) do not know what saving is, what it means to make a better purchase and do not realize the main reason for the need to save. For example, the subjects Gleb S. and Zhenya K. when performing a diagnostic task, " what products could Kolya save?"we chose only a chocolate bar "Snickers", ignoring the purchase of a fizzy drink by the boy and absolutely not analyzing the fact of having a shopping list issued by my mother.

When working with the payment receipt, all graduates of the auxiliary school correctly wrote out the numerical data for payment. However, only 20% of the subjects were able to make the appropriate calculations without errors. For example, have Lyosha L., broke a 14 the 73 kop, instead 20 the 56 kop.; have Yura K.-10 the 86 kop.

**Conclusion.** Thus, according to the results of the study of the level of formation of financial literacy in persons with intellectual disability, it can be concluded that the lack of formation of all its components. To characteristic features of knowledge of bases of financial literacy of persons of the given category it is possible to carry: insufficient knowledge of denominations of coins and notes, difficulties at their differentiation, unformed knowledge of quantity of kopecks in ruble; errors at definition of quantity of money; difficulties at exchange of notes and coins of various denomination; difficulties in solving everyday situations related to financial literacy, cost savings. Therefore, there is an objective need for correctional and developmental work with students with intellectual disabilities to form their foundations of financial literacy in the framework of specially organized educational activities, including in real life situations.

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## **THE INFLUENCE OF LINGUISTIC COMMENTARY ON THE ASSIMILATION OF LITERARY TEXT BY PRIMARY SCHOOL CHILDREN**

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Literary reading lessons provide wise opportunities for introducing students to the spiritual, historical life of the people, educating talented readers and literary connoisseurs, and developing reading competencies at the 1st level of general secondary education. These opportunities are inherent in various genres of artwork. However, interest in reading is declining even among primary school children, which is noted both in pedagogical research and in modern school practice [1, p. 19]. If younger schoolchildren encounter words "incomprehensible" to them in the texts, they can't perceive a literary text as a work of verbal art, and they also can't understand the content, realize its ideological orientation, show an indifferent attitude to it, don't seek for expressive reading.

In the programmatic reading of students there are a lot of works that are not related to real life of the school, with a small life experience of students, their poor vocabulary, misunderstanding of a number of words and expressions, difficulty in perceiving the allegorical meaning of words. For example, students already encounter rather difficult vocabulary in the 2nd grade: a coachman, a peasant, a capital city, boyars, eyes, famously, fun, etc.

The primary perception of the text is the initial stage of self-determination. The researcher M.P. Voyushina together with other researchers M.D. Kocherina, L.K. Bogomolova, E.V. Kvyatkovskaya notes that its logical continuation is the linguistic commentary of the literary text [2, p.39].

To combine the world of work and the words and reveal their interdependence in the consciousness and feelings is one of the important tasks of the reading lesson, the solution of which is not always affective with the help of traditional vocabulary work, most often in the form of an information reference in modern conditions. Therefore, promotion to the leading positions of linguistic commentary is justified. Outstanding philologists such as U.M. Lotman, N.M. Shansky have covered this approach in their works.

The relevance of this problem is reflected in the authoritative works of researchers in Russia, Belarus and Ukraine: Tsepova I.V., Kozyreva L.I., Kontseva G.M., Danich O.V., Gubova G.N. Linguistic commentary is understood as "the disclosure of the semantics and etymology of the word, the explanation of imaginative means" [3, p.12].

This question is relevant for modern school practice, since the content of literacy reading has been updated: new textbooks for grades 2-4 have been published. It is important for future specialists, because college students conduct their first test lessons in the school subject "Literary reading" in the third year.

Based on the relevance of the topic, the aim of our study is to consider the feasibility of methodological identification to use effective commenting on linguistic as a didactic tool, a full perception and understanding of literary works.

**Material and methods.** We used a theoretical analysis of scientific and pedagogical literature, the survey, observation. The study was conducted on the basis of secondary school №2 of Orsha in two 4 classes (49 students), 9 teachers, 19 students of college trainees (3d course).

**Findings and their discussion.** The experimental work at the initial stage showed that at first two teachers (22,2%) were categorically against to use linguistic commenting in the process of vocabulary work. 4 teachers (44,4%) believed that linguistic commenting takes too much study time. And 3 teachers (33,3%) were ready to include commenting in activities at the lesson.

When we analyzed the educational and program materials (reading connect) we made sure that there is not always a list of vocabulary after the texts. For example, in a textbook of 4 class (2 parts) out of 27 works, 19 (70%) don't have them. In the process of observation, we found that in the control class, when pupils read the legend "Ut-Rust Crows", only 19% of students (5 out of 26) were able to define the meaning of the words: dugout, canvas, hold, berth, wither, etc. In the experimental class, 26% of students (6 out of 23).

The experiment showed that the semantics of many words cause difficulties even among students of the third year of college – 68.4% (13 people) were not able to determine the meaning of the given words: seine, quiver, lukomorje, anomaly, etc.

For younger schoolchildren lack of historical knowledge poor vocabulary and a common range of representations, speech uniformity are characteristic. Thus, an analysis of the works for grade 2 allows us to conclude that in the process of preparing for the lessons, it is necessary to think over methods for acquainting students with a number of historicisms and archaisms. The lexemes are also needed to study carefully, the explanation of which is not provided in the lists of vocabulary after the texts: forge, pood, damask club, outskirts, deed of gift, funeral song, rumors, haymaking, etc.

In such cases linguistic commenting is aimed at increasing students' interests in the process of comprehension of a work, forcing students – trainees, at first teachers to identify difficult places for children, to choose methods of commenting.

Commenting puts students in a condition where reading is thoughtful, unhurried, judicious. It takes time, as we have made sure. However, you can use a variety of commenting techniques that give good results. The use of exclamatory, phraseological, derivational dictionaries, meanings, the definition of illustrations, predictions about the semantics of a word, elementary word-formation analysis, self-preparation of students for the interpretation of words by word in context, the use of pictures by students, story-based explanatory



dictionaries, etymological, the use of multimedia tools all these techniques testify to the effectiveness of linguistic commentary.

During the experiment, the position of school teachers also changed: 88.8% (8 people) noted in the questionnaire that linguistic commentary, in their opinion, is more effective than just dictionary work; significantly increased, which was confirmed at the control stage, the interest in artistic control works too (it was 30%–86%); most students liked to independently define the meaning of words and phrases using dictionaries (69%), teachers and student-trainees began to use class time more rationally to organize commenting, with the help, the expediency of language resources in the work was more clearly revealed; commentary provided an adequate, deeper understanding of the literary text by students.

**Conclusion.** Thus, linguistic commentary in modern school practice is an overdue methodological necessity. Due to it the horizons expand of primary school children, they begin to think figuratively. The object of attention is the words which are necessary for understanding the artistic image, the expediency of the writer using the features of the language of resources, distinctive linguistic in the artistic context, is revealed. As a result, the primary school children are already ready for the successful development of the subject "Russian literature" at a basic level.

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## **MODERN COMPUTER TECHNOLOGIES AS A MEANS OF FORMING A COGNITIVE INTEREST AND A METHOD OF IMPROVING EFFECTIVENESS OF A MUSIC LESSON**

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Modern computer technologies in studying is one of the most sustainable areas of the educational process in our time. There is no exception in the field of musical education. Modern technical teaching aids allow us to increase the cognitive interest and motivate students to study musical disciplines. Using computer musical technologies at music lessons and optional lessons of aesthetic orientation opens new possibilities and prospects for the development of an active, creative-minded personality of a student and a teacher. A computer tablet, a mobile phone are effective tools for solving educational problems which improve the quality of the material under study.

The main task of a school teacher is to teach children to study, to master the material, to make conclusions. Using computer technologies allows you to teach, to invent, to solve creative tasks and optimize methods and resources of getting information.

Studying literary sources made it possible to identify areas of researching raised in our studying: The following researches dealt with questions of the formation of cognitive interest: Yu.K. Babansky, V.A. Krutetskiy, G.I. Schukina, E.B. Abdulin, S.I. Rubinstein, L.S. Vygotsky, A.N. Leontyev, L.M. Friedman, N.G. Morozov et al.; wrote about the possibilities of using computer tools in education: Yu.G. Dmitriukova, D.Yu. Dubrovsky, G.A. Evseev, A.P. Zagumennov, M.D. Rabin et al.; the development and analysis of existing musical computer technologies was carried out by G.G. Belov, I.B. Gorbunova, P.P. Zhivaikin, V.A. Izvozchikov, G.N. Kotelnikova, O.S. Makarova, R.Yu. Petelin, Yu.V. Petelini et al [1, p. 109].

Despite the fact that the problem of the formation of cognitive interest by computer technology is investigated by various authors, it is one of the relevant psychological and pedagogical problems.

The purpose of our studying is to develop and test the process of effective formation of the cognitive interest of elementary students by computer technologies.

**Material and methods.** Our research is based on the material of the state educational institution "Secondary school No. 11 of Orsha" for the study of music lessons, elective classes of aesthetic orientation, master classes for music teachers of Orsha and Orsha district.

To study the process of formation of cognitive interest in younger students, empirical (observation, comparison, dimension) and theoretical (analysis and synthesis, generalization, systematization, distribution) research methods were used.

**Findings and their discussion.** Technologies that store, transmit, process, protect and reproduce information using computers are commonly referred to as computer technologies [2, p. 305]. The use of these technologies in music lessons can improve the quality of education, increase the cognitive activity of students and their motivation for learning.

The introduction of new music computer technologies entails the optimization of the educational process during music lessons, in order to study music theory and apply the acquired knowledge in practice. The model of optimization of educational process at music lessons, with application of modern computer technologies, is displayed in figure 1.

There are many music computer programs, digital resources that can be useful at different stages of teaching music disciplines or at certain stages of a music lesson. Musical computer technologies can be classified according to the methodological purpose and the following software: demonstration, training, software systems (simulators), management, modeling, information retrieval, educational game, leisure. The dosed and purposeful use of the listed technologies allows to achieve improvement of quality of teaching at lessons of

music and high progress of younger pupils. The active use of computer music technology in music lessons gives the teacher additional benefits:

- the ability to pay more attention to each student;
- scope for creativity students and teachers;
- professional growth of teachers and getting rid of routine procedures;
- continuation of the educational process outside the school;
- preparing students for modern and future realities of life.

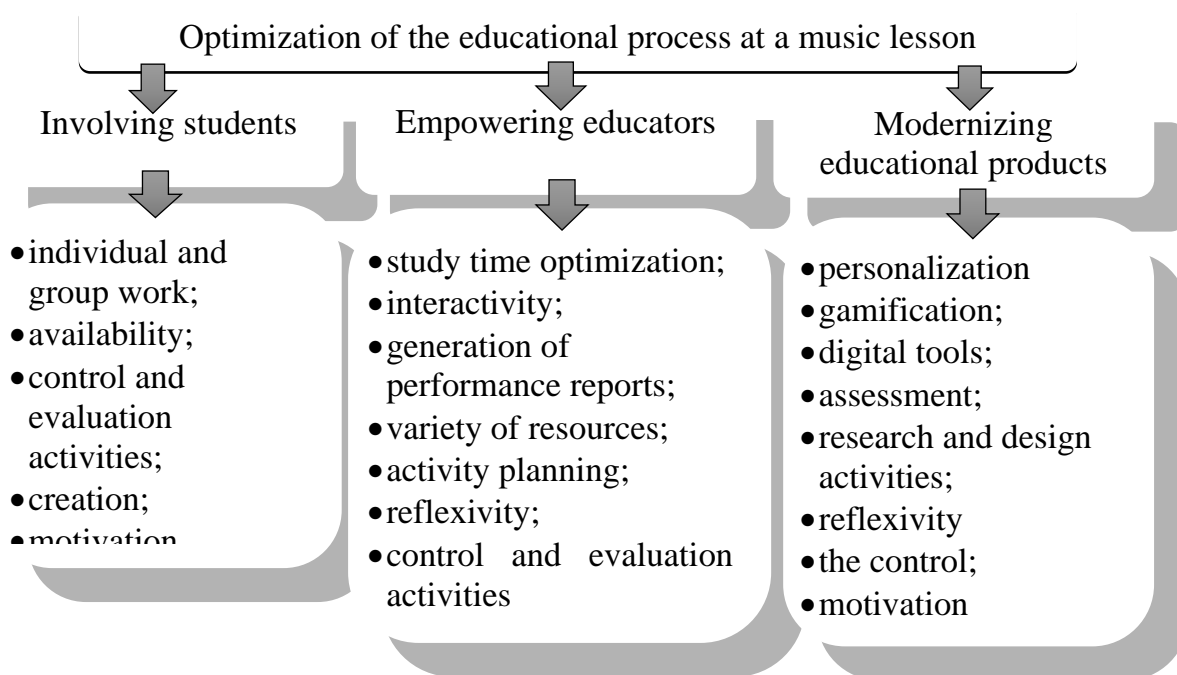


Figure 1 - Model for optimization of the educational process in music lessons.

**Conclusion.** Thus, the use of music computer technologies in music lessons contributes to the creation of a special educational environment, based on interactive virtual objects, to enhance the cognitive and creative activities of students. Modern computer technologies have a number of advantages and give unlimited opportunities to both the teacher and the student. Therefore, it is necessary to move from passive use of technologies to active use.

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## THREAT NETWORK RESOURCES AND WAYS TO PREVENT THEM

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In the conditions of modern information technologies, the development of telecommunication networks, universal accessibility to the global Internet in our republic, as all over the world, there are manifestations of psychological pressure, harassment among schoolchildren and young people.

Since the life of educational institutions has become more open, transparent, a number of problems have been exposed, which both school and society have not previously faced on this scale. One of such social phenomena was *cyber-bullying* – a teenage virtual terror, which received its name from the English word bull – "bul", with related meanings: aggressively attack, hector, find fault, provoke, terrorize, harass, hound [1, p. 44].

According to statistics, every second child faces cyber threats in Belarus. Annually, about 47–49% of children and adolescents encounter inappropriate content and become victims. About 56% of adolescents receive sexual offers on the Web, and a third of them receive invitations to a real meeting [2, p. 3].

We can say that cyber-bullying is one of the negative effects of the development of information network technologies, therefore, it requires the study and measures of a socially-preventive nature. It includes a wide range of different forms of behavior. On the one hand, it can be ridicule that is not taken seriously, on the other - a real psychological network terror of children and adolescents, causing irreparable damage to the psychological state of the person. The pressure can be so strong that it leads to suicide, attempts to suicide. Consequently, the problem of "virtual" bullying is relevant, it is the subject of the development of a special preventive system in educational institutions.

Researchers of the phenomenon of cyber-bullying Grishaev N. A., Zintsova I. O., Ksenofontova I. V., Muravskaya G. V., Osipov I. S. Kon I. S., indicate that it is increasingly spreading in the youth environment, requires measures to protect children from its manifestations [3, p. 67]. They explain this circumstance primarily by the fact that this phenomenon is characterized by anonymity, which attracts all those who are looking for an object to spit out their aggression and feel innocent. In the environment of children and adolescents, cyber-bullying can manifest itself in such network forms as *flaming*, *happy slapping*, *sexting*, *cyber trolls*, etc.

The purpose of the study is to identify effective psychological and pedagogical actions aimed at preventing network psychological violence, preventing the antisocial behavior of children and adolescents.

**Material and methods.** In our work, we relied on the following methods: theoretical analysis of scientific and pedagogical literature, interviews with 7 school teachers, questionnaires, observation. 2 employees of social-

psychological service from Orsha College and 8 psychologists from schools in the Orsha region, 47 pupils from 3-4 forms from Orsha State Comprehensive School №21 were involved in our organizational and experimental part.

**Findings and their discussion.** During the questionnaire it was revealed that 31,9% of students to some extent came across pressure from classmates on the basis of network interaction, 76,6% – are aware that some of them "may offend other children".

It has been revealed that the initiators of harassment, most often psychological, are child bullers, leaders with narcissistic character features. They are characterized by a desire for power, a desire for self-assertion at the expense of others. According to social teachers, class teacher, in any class there are such pupils whose behavior is aimed at affirming their power. The teacher should be ready to respond competently, professionally to such students.

In our view, in the fight against this phenomenon, it is important to have a system, one of the main elements of which, according to 100% of teachers surveyed, is information and educational work with children.

In order to prevent virtual cyber-bullying, teachers and parents can use the following recommendations on the rules of conduct in the process of interaction on the Web:

- ban on the distribution of personal information: phone, school, address, payment cards, etc.;
- using privacy settings for the greatest degree of security;
- immediate reporting to adults of harassment attempts in the form of messages;
- the main thing is never to participate in the harassment of other people both on the Web and in real life.

One of the most important conditions for the safety of children and adolescents in the global network is digital competence. Accordingly, they must be taught the rules of Internet communication: constantly explain that anonymity should in no way lead to permissiveness, communication should be friendly, aggression towards peers and adults is strictly unacceptable in it, it is forbidden to write harsh and offensive texts that degrade human dignity. It is necessary to pay attention to the fact that children should be able to respond correctly to offensive words or incorrect actions of other users. Children and teenagers should know that in case of encountering a negative, it is better to leave this resource at all, quickly delete their personal information, respond to the aggressor by completely ignoring it.

In the conditions of information educational environment, any student can encounter manifestations of pressure and violence in its various forms. In this regard, a novice teacher, faced with such cases, often allows the wrong actions: raises his voice, changes his tone to threatening; allows sarcasm, ridicule, derision; makes strict demands, threatens punishment, draws strangers into the



conflict, gives a negative assessment of the child's personality, etc. It is more advisable to rely on other methods:

- instructing of pupils about safe behavior on the Web;
- calm attitude in case of minor aggression (expression of understanding of the feelings of the child, switching attention);
- emphasis of attention on acts, but not on the personality;
- establishing feedback with the child;
- control over own negative emotions;
- interview with parents about the rules of the child's work on the Internet.

Psychological violence, in our opinion, takes place where this phenomenon can be hushed up, not all teachers and parents quickly and effectively solve problems, not all parents find the right ways to get out of situations.

**Conclusion.** Thus, the targeted activities of the family and the use of effective methods by teachers will contribute to reducing the manifestations of psychological violence in the child and youth environment in the process of referring them to the information web. This problem is very difficult to eradicate in a short time, but if all participants of the educational process are closely involved in the system, there is a high probability that increasing digital competence and knowledge of the rules of safe behavior on the Web will reduce the number of victims of this negative social phenomenon.

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## **SPECIFICITY OF DEVELOPMENT OF THE GRAMMATIC STRUCTURE OF SPEECH IN STUDENTS WITH INTELLECTUAL INSUFFICIENCY**

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For children with intellectual disability, the presence of various kinds of concomitant disorders is typical: motor, sensory, mental, and speech. The practice of special education and training notes that these violations significantly complicate the learning process for students in this category [1]. The need to study the features of the grammatical structure of speech of students with intellectual disabilities is due to the importance of the grammatical side of speech for learning and communication.

Speech activity is a complex multilevel functional system, the components of which: phonetic, lexical, grammatical, semantic, depend on one another and determine each other. Entering into the interaction, they make their specific contribution to the formation and development of language skills, and the course of speech development (D.N. Bogoyavlensky, N.I. Zhinkin, I.A. Zimnyaya, M.I. Lisina, etc.).

The formation of the lexical and grammatical side of speech is one of the priority tasks of special pedagogy and speech therapy, in particular. A person's success in society depends, inter alia, on the level of development of his speech abilities. The grammatical side of speech is especially important for socialization, since it has a significant impact on the development of linguistic competence and speech communication in general. The formation of the grammatical side of speech affects the development of cognitive processes, as it relates to all aspects of mental activity.

The purpose of the study is to determine the characteristics of mastering grammatical categories by students with mild intellectual disability.

**Material and methods.** A purposeful study of the grammatical structure of speech in younger and older students with intellectual disabilities was carried out on the basis of the State Educational Institution "Auxiliary School № 26 of Vitebsk". The total number of people involved in the study was 40 people with a diagnosis of F70 for ICD-10. The study involved 20 students of 2–4 classes of the first department - EG1 and 20 students of 8–10 classes of the first department of EG2. The students were offered diagnostic methods by O.B. Inshakova to study the following grammatical categories: - the formation of plural nominative nouns; - the formation of nouns in indirect cases; - the formation of nouns of the native plural; - the use of prepositions; - coordination of the numeral with a noun; - approval of the adjective with a noun; - the formation of nouns with diminutive suffixes; - the formation of relative adjectives from nouns [2].

**Findings and their discussion.** A study of the formation of nouns in the nominative plural case showed: in EG1, 50% of students completed the task. The children's answers were distinguished by a certain peculiarity: 25% of the examined used the words "sparrows", "fines", "ears", "chairs", "left". In EG2, 85% of the subjects completed the task without errors, however, errors were noted in the formation of the nouns of the nominative case of the plural number of words "sparrow" - "sparrows", "ear" - "ears". The results of a study of the education of nouns in indirect cases by schoolchildren with intellectual disability showed that in EG1 50% of primary schoolchildren with intellectual disability could cope with the task. However, it should be noted that this task caused EG1 students significant difficulties and in some cases required the provision of various types of assistance from the experimenter: for example, typical answers were: "pencils", "dolls".

A study of the formation of nouns in the genitive case of the plural showed that in EG1 55% of primary schoolchildren with intellectual disabilities coped with the task. In their answers, the following specifics of the formation of nouns in the genitive case of the plural are observed: 15% of EG1 students answered “trees”, “books”, “sheets”, “keys”. 5% of the subjects answered: “cups”, “houses”. 5% of the examined EG1 use nouns: “balls” and “keys”. As you can see, at primary school age children with intellectual disabilities do not master the grammatical norms of the formation of plural genitive nouns. Among older students with intellectual disabilities, 80% of the subjects (EG2) were successful.

The study of the peculiarities of using prepositions by students with intellectual disabilities showed that among the students of EG1, only 45% of the subjects were able to complete the task. The following prepositions were most rarely used in the answers of the respondents: “under” was replaced by the words “from below” or “below”, above was replaced by “above” and “above”, the pretext “for” in all subjects of the EG1 incorrectly answered children was replaced by the word “hiding”. The pretext “near” and “before” in the answers of 15% of respondents was not used. A study of the peculiarities of matching a numeral with a noun students with intellectual disability showed that in EG1 only 40% of the subjects were able to cope with the full volume of the task with the help of an experimenter. Most often, the answers of primary schoolchildren with intellectual disabilities included such errors as “one notebook” (25% of answers), “five terads” - in 15% of subjects, “three pencils”, “five pencils”, “five apples” - 10 % of cases. By high school age, students with intellectual disabilities master the matching of numerals with nouns. So, 95% of EG2 subjects were able to complete the tasks of this stage of the study.

The study of matching of adjectives with nouns of students with intellectual disabilities has yielded the following results. In EG1, 60% of the subjects completed the task. The greatest difficulties were caused by the coordination of adjectives with the word "bucket" (neuter gender). In 10% of the subjects, the word “dress” was offered options: “girl” and “for girls”. Among high school students with intellectual disability, EG2 successfully completed the task of 95% of students.

A study of the formation of nouns with diminutive suffixes by participants in an experimental study yielded the following results: only 35% of students with intellectual disabilities of primary school age (EG1) independently completed the task. 50% of the examined EG1 could not form diminutively - the affectionate forms of the words “bed”, “doll”, “bowl”, “fox” and “sparrow”. 5% of the subjects noted such answers as: “crib”, “sparrow”, “blanket”. Also often found (15%) the following incorrect variants of diminutive - affectionate forms of words: "doll", "cupboard", "saucer" (from the word "bowl"). Among students of senior school age (EG2), 85% of the respondents independently completed the task. A study of the formation of relative adjectives from nouns by students

of EG1 and EG2 showed that in EG1 40% of primary schoolchildren with intellectual disabilities coped with the task. Among older schoolchildren with intellectual disability (EG2), 75% of the subjects had a task to form relative adjectives from nouns. Among the erroneous answers, one can single out: “straw” - “straw”, “snow” - “snow”, “fluff” - “fluffy” (10% of cases). As you can see, errors in the formation of relative names of adjectives are associated with a violation of the grammatical structure of speech, improper choice of suffix (and not replacement with qualitative names of adjectives - as in subjects EG1).

**Conclusion.** Younger students with intellectual disabilities experience significant difficulties in mastering the grammatical categories to the fullest, most of the students in the elementary grades of the auxiliary school make significant mistakes in using grammatical categories of various types. The account of the revealed features in the pedagogical activity of the teacher-defectologist will help to improve the quality of the implementation of the correctional and developmental tasks of teaching children of this nosological group.

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## **FEATURES OF FORMATION OF BASES OF LEGAL CULTURE AT HIGH SCHOOL STUDENTS WITH INTELLECTUAL INSUFFICIENCY**

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According to the activity approach, legal culture is a method of social regulation created by people and consists in influencing individuals to ensure order in society. It is considered as a result of interaction of subjects, in the process of which regulatory ideals of behavior in the form of legal norms are created, and its existence as a form of social interaction, reproducing old and creating new standards of legal behavior [1].

Eliasberg N. I. noted that components of legal culture are: - systematized scientific knowledge about law, legislation, existing in society, the rule of law, measures to its strengthening and protection methods; - based on the social value of law and strict law enforcement the attitude of citizens to the Law, installation law-abiding behaviour and an active acceptance of violations of public order; - socially useful behavior of the person, manifested in conscious lawful behavior, skillful realization of their rights and freedoms, responsible attitude to the performance of duties of the citizen, readiness in various life situations to act legally competently, it is advisable, focusing on existing laws [2].

There are some observations of researchers, which note that the knowledge about the rights and duties, responsibility and protection, which significantly determine the development of the individual in society, in high school students of auxiliary schools are superficial and are not associated with the practice of everyday behavior. In other words, these students are not sufficiently socially adapted and protected in society, which is contrary to the provisions of state and interstate regulations.

The aim is to study the level of formation of legal knowledge among students with intellectual disability of the first Department of the auxiliary school.

**Material and methods.** Experimental research of features of knowledge by pupils with intellectual insufficiency of bases of legal culture was carried out from February, 2019 to may, 2019 in SEI "Auxiliary school № 26 of Vitebsk". The total number of persons involved in the study was 20 people diagnosed with F70 according to ICD -10. The study involved high school students of the first Department of the auxiliary school. The age range of subjects-from 14 to 17 years. Oral and written survey was chosen as diagnostic tools.

**Findings and their discussion.** When answering the question "do You know your rights?" 80% of people said they knew; 30% of subjects said no. However, further research showed that respondents definition of their knowledge as sufficient did not correspond to their real level of formation.

25% of the students said that their rights were violated, but could not explain how; 75% of the subjects - that their rights were not violated. It should be noted that the number of those whose rights were not violated included those 30% of students who replied that they did not know their rights. At the same time, 45% of high school students with intellectual disabilities are quite critical said that violated the rights of others. Individual work on the results of a written survey did not allow to determine more specifically the content and degree of violation of rights, the subjects found it difficult to give specific examples.

When answering the question " Where would You go if your rights were violated?"the following answers were received: - 60 % of subjects would turn to parents or adults; 5% - to God; - 15% of students indicated specialized bodies (police, court); 10% - could not answer this question.

Analysis of the answers to the question : " what duties does a minor have?"only 50% of high school students with intellectual disability were able to partially with the help of an experimenter to list their duties; 10% - do not know the duties of minors; 40% of the survey participants – know the duties of minors and were able to name them. Mainly among these duties was provided: statement on the military account, the duty to obey their lawful representatives, have the obligation to learn, not to violate the rights of others.

When answering the question: "What rights do You know?"50% of respondents were able to list the main ones. Among the answers, the most popular were: the right to life, the right to freedom of speech, the right to



education, the right to freedom of movement, the right to health care. Only 5% of students could not answer this question, the rest-were able to name some rights. Despite the fact that many high school students with intellectual disabilities are aware of the obligation not to violate the rights of other people, when answering the problematic question about the possibility of committing an offense if it is not followed by punishment, they responded positively in 65% of cases. This situation demonstrates the legal immaturity of schoolchildren in this category.

Analysis of the answers of the subjects to the question " is it possible to achieve justice if you act according to the law?"I showed that 70% of respondents believe it is possible and correct, and only 5% of respondents answered in the negative. As the main sources of high-quality legal information, 30% of students with intellectual disabilities named various media, 10% of subjects answered that such a source is law enforcement officers; 45% of high school students named teachers and parents, 15% of participants in the experimental study-friends and acquaintances.

Unfortunately, 60% of high school students with intellectual disabilities could not correctly name the legal act regulating labor relations in the Republic of Belarus.

**Conclusion.** Based on the data obtained during the written and oral survey, it can be concluded that the components of legal culture (cognitive, activity and motivational-evaluative) in students with intellectual disability are at an insufficient (low) level. In the judgments and actions of students often manifested Philistine legal orientation. Lawful conduct is ensured by control. According to the aggregate assessment of the quality of formation of these components, it can be concluded that the overall level of legal culture among secondary school students is low. It should be noted that older students have a need to study the rights and laws, as well as the absence of legal nihilism, which in turn is an indicator of the availability of readiness to improve the level of legal culture.

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## DEVELOPMENT OF THE EMOTIONAL SPHERE OF STUDENTS OF THE SECOND DIVISION OF THE SUBSIDIARY SCHOOL

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The formation of the emotional sphere of children with intellectual disabilities has appeared in the center of scientific research relatively recently. An analysis of theoretical and experimental studies shows that the emotional development of schoolchildren with intellectual disabilities is considered among the most urgent problems of correctional pedagogy and special psychology, this is due to both the insufficient development of the theoretical aspects of this problem and the needs of correctional and pedagogical practice.

The emotional sphere is one of the main regulatory systems that provide active forms of vital activity of the body. Emotions are mental states that have a pronounced subjective coloring and express all kinds of experiences by a person of the phenomena and events of the surrounding reality.

The teacher's knowledge of the characteristics of the student's emotional attitude to one side or another of the surrounding reality is an important condition for the effectiveness of corrective action. The emotional sphere of children with intellectual disabilities, especially among students in the second department of the auxiliary school, is characterized by immaturity and significant underdevelopment, which is associated mainly with the insufficient formation of arbitrary mental processes [1]. In a number of cases, emotions arising in schoolchildren with intellectual disabilities are not sufficiently differentiated, inadequate to the external influences exerted on them [2]. However, in comparison with other mental processes, the emotional sphere in this category of children is more preserved.

The purpose of the study is to study the understanding of younger students with moderate intellectual insufficiency of human emotional states in various conditions.

**Material and methods.** A focused study of the characteristics of the emotional sphere of primary schoolchildren with moderate intellectual disability was carried out in March - April 2019 on the basis of the State Educational Institution "Auxiliary School № 26 of Vitebsk". The total number of individuals involved in the study was 15 senior students (with a diagnosis of F71 according to ICD-10). The following methods were used as experimental study methods: S.D. Zabramnoy, O.V. Borovik on revealing understanding of emotional states by facial expressions of a person, methodology of L.B. Fesyukova to identify an understanding of emotional states in the proposed situation (at a visual level), diagnostic conversation.

**Findings and their discussion.** The analysis of the obtained results demonstrated the presence of the following specific features in the understanding of emotions by students with moderate intellectual disability. So,

to the greatest extent, the subjects had an understanding of the emotions of joy and anger - contrasting in external manifestations and having pronounced features of facial expressions when manifested (40% of the correct answers), emotions of fear and sadness were correctly identified only by 20% of students. For example, the test subject of Milan P., when analyzing a picture of a joyful girl, said that the character feels joy and explained her answer: "She laughs and her mouth smiles." When demonstrating a diagnostic picture in which the character is afraid, this subject correctly named the emotion and explained her answer: "This is how the mouth is open and the eyes are wide." This example illustrates the understanding of the tested feelings of the character, the possibility of an adequate analysis of facial expressions, knowledge of the name of emotions.

Subject Yegor L., upon presentation of a similar pair of diagnostic pictures, determined that the girl was feeling joy, but explained his answer as follows: "This is her gaiety." Also, this subject could correctly name sadness, but commented on his answer like this: "The girl does not feel a smile." An analysis of the responses of this student shows that older students with moderate intellectual disability do not always know the correct names for emotions, cannot justify the cause of the emotion and the external signs by which they determined this emotion.

A study of the understanding of older students with moderate intellectual insufficiency of the emotional states of the characters in the proposed diagnostic situation (at the level of perceptions) showed similar quantitative results in comparison with the previous method. So, 40% of the subjects were able to determine the joy and anger of the heroes of the situation, 20% - correctly called the emotion "sadness". However, not a single subject was able to determine the surprise and fear of the heroes of the diagnostic situation. For example, the subject Anton V., analyzing the diagnostic situation in which the boy is surprised at the elephant he saw, concentrated on the background image of the car and determined the character's mood as sad, giving the following explanation: "The boy wanted to go by car." When analyzing the diagnostic situation in which the character was frightened of the shadow, the subject determined the emotion "sadness": "He is sad, bored." These examples characterize older schoolchildren with moderate intellectual disability as poorly defining emotions in a particular situation (and difficulties in analyzing the event itself, in particular), experiencing difficulties in determining the causes of the emotional state of the plot participants. Characteristic is the use of one's own life experience and the choice of emotion according to a situational or random basis.

A comparative analysis of the results of the study showed that most older students with moderate intellectual disability experience significant difficulties both in understanding emotions from a person's facial expressions and in various events (an insignificant advantage was noted in determining emotions only from facial expressions).

Typical for students with moderate intellectual disability was a lack of understanding of the meaning of the diagnostic tasks, many subjects after the first presentation of the diagnostic pictures only wanted to describe the image without analyzing the emotional state of the characters, which required massive help from the experimenter. The main difficulty in the fulfillment of the diagnostic tasks by the subjects was the lack of understanding of the meaning of the plot pictures proposed for analysis. For example, test subject Nikita Sh., Absolutely did not understand the meaning of the depicted situation (the plot of a boy in fear), determined that the character was feeling joy, and argued his answer this way: “The boy is sleeping,” ignoring the wide-open eyes of the plot hero.

**Conclusion.** The results of an experimental study allowed us to determine the following features of understanding of emotions by high school students with moderate intellectual disability are: - insufficient understanding of the meaning of the situation in which the characters show different emotions; - when determining emotions, they tend to use their own life experience, including inadequate situations; - difficulties in hearing emotions; - insufficient differentiation of emotions, a mixture of emotions and external emotional manifestations; - the predominant use of non-verbal means of communication in explaining emotional states. Therefore, one of the priority areas of correctional and developmental work with this category of students is the conduct of specially organized classes for the development of the emotional sphere.

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## **FEATURES OF DIAGNOSTIC OF COMMUNICATION SKILLS AND SOCIAL INTERACTION OF CHILDREN OF PRESCHOOL AGE WITH AUTISM SPECTRUM DISORDERS**

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The last decade has seen a sharp increase in children with autistic disorders. These disorders are unique in their manifestation and vary depending on the severity of symptoms, the age of the manifestation and the presence of concomitant defects.

Autism spectrum disorders are understood as a group of complex disorders characterized by a certain violation of social behavior, communication, verbal

abilities, narrowing of interests and activities, which are both child-specific and often repeated [1].

One of the most important stages of work on communication skills and social interaction is the diagnostic stage, which is aimed at identifying the area of actual development of the child (skills that are currently formed) and determining the zone of proximal development (potential opportunities), which is an important condition for planning correctional and pedagogical work [2].

The goal is a theoretical analysis and experimental study of the specifics of the development of communication skills in preschool children with autism spectrum disorders.

**Material and methods.** In order to study the peculiarities of the communicative activity of preschool children with autistic disorders, an experimental study was conducted on the basis of the “Hear. Understand. Help.” at the State Educational Institution “Vitebsk Regional Center for Correctional Development Education and Rehabilitation”. The study involved 17 children of senior preschool age of this category, 4 teachers engaged in corrective work with children in the experimental group. The main methods of study were: observation developed by E.O. Smirnova, V.M. Kholmogorova, a technique for assessing the state of communication skills A.V. Khaustova "Assessment of communication skills in children with autism spectrum disorders" [3].

**Findings and their discussion.** The observation method is invaluable in the initial orientation and identification of the features of the interaction and communication of an autistic child, which can be observed in vivo. The results obtained during the observation of the formation of communication and social interaction skills are presented in table 1.

Table 1 – Quantitative indicators of the results of monitoring the state of communication skills and social interaction of preschool children with autism spectrum disorders (in percent)

Criteria for evaluating interaction parameters	Number of children numerically and in percent			
	Points			
	0	1	2	3
Initiative	7 (44%)	7(44%)	2(12%)	0(0%)
Sensitivity to impact	0(0%)	4(25%)	12(75%)	0(0%)
The prevailing emotional background:				
- positive;	0(0%)	0(0%)	3(19%)	1(6%)
- neutral;	0(0%)	0(0%)	11(63%)	1(6%)
- negative.	0(0%)	0(0%)	1(6%)	0(0%)

These tables show that the most frequent emotional background when interacting with peers and teachers for preschoolers of the experimental group is neutral. So, 11 children, representing 63%, demonstrated this type of social interaction. 7 children with autism spectrum disorders (44%) - make attempts to show initiative in interaction in a situation significant for them, but cannot fully implement it, and 7



children (44%) - refuse to show persistence, interest, attention to the partner, which is an indicator of the lack of social interaction skills in accordance with age. 12 subjects (75%) are characterized by episodic responses and reactions to partner actions. It should be noted that the most clearly described features of communicative behavior were observed during individual lessons with teachers, while in interaction with peers, these methods of entering into social contact were observed only in a few children of the experimental group.

The survey of teachers was carried out using the method of A.V. Khaustova "Assessment of communication skills in children with autism spectrum disorders." Teachers who directly carry out correctional and developmental work should have assessed the level of formation of the basic communication skills in children of the experimental group. The results of this part of the study are presented in Figure 1.

Based on the analysis of the data obtained, it can be concluded that in the predominant number of children with ASD, communication skills are formed at a low level from 9 to 28% - 11 children (64%). Less well-formed are the skills: naming, commenting and describing objects, people, actions, events; social behavior; expressions of emotions and feelings; attracting attention and asking questions; dialogue skills. At the same time, in their note, teachers noted a number of nuances of the formed request skills, socially responsive reactions, which include: the episodic nature of their manifestation, the selective use, which allows us to talk about their insufficient assimilation by a child with autism spectrum disorders.

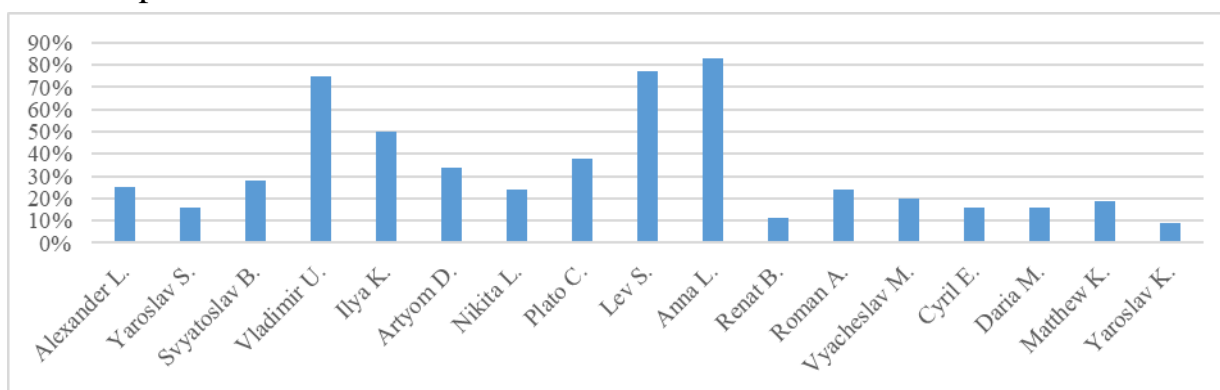


Figure 1 - Quantitative indicators "Assessment of communication skills in children with autism spectrum disorders"

**Conclusion.** Thus, the conducted experimental study confirms theoretically substantiated specific features of the formation of communicative skills and social behavior in autistic children. Among the data of insufficiently formed skills, the foreground are: expressions of emotions and feelings (emotional contact), communication skills, including not only the level of speech development, but also the ability to conduct dialogue, compliance with the rules and norms of social behavior. Purposeful correctional and developmental work aimed at the formation of communicative skills and norms of social behavior,

built taking into account the individual characteristics and capabilities of an autistic child, can significantly improve the quality of communication of this category of children.

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## **FEATURES OF DEVELOPMENT OF THE LEXIC STRUCTURE IN YOUNGER SCHOOLCHILDREN WITH INTELLECTUAL INSUFFICIENCY**

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One of the important components of development is speech, which performs two important functions: it serves as a means of communication and is an instrument of thinking. A child with intellectual disability has lag in speech development from the first months of life. By the beginning of preschool age, we can observe the lack of formality of subject activity, the complete absence of speech or babble, the absence of prerequisites for the development of phonemic hearing, limited understanding of inverted speech, poor development of general and articulatory motility. For many children with intellectual disabilities, speech does not appear by the age of four or five. At an older age, there is a poverty of active and passive vocabulary; moreover, the passive vocabulary, although significantly higher than the active one, only concerns the perception of individual isolated words based on clarity, which indicates that for preschool children and primary school students with intellectual disabilities, the situational meaning of the word remains for a long time.

Most of the special studies of the speech development features of students with intellectual disabilities are devoted to the questions of the logical and content side of oral and written speech (V.Ya. Vasilevskaya, M.F. Gnezdilov, E.A. Gordienko, R.I. Lalaeva, V.G. Petrova et al.); the identification and formation of its lexical side (G.I. Danilkina, G.M. Dulnev, Z.N. Smirnova, T.K. Ulyanova, etc.); determining ways of correcting the grammatical and lexical structure of speech (M.F. Gnezdilov, K.G. Ermilova, G.V. Savelyeva, M.P. Feofanov and others). The authors note the poverty of the active and passive vocabulary of children with intellectual disabilities, and the passive vocabulary, although significantly higher than the active one, only concerns the perception of individual isolated words based on clarity, which indicates that preschoolers and

primary schoolchildren with intellectual disabilities have a long time, the situational meaning of the word [1] is preserved. These features of the lexical side of speech also affect the development of phrasal speech, which complicates the formation of communication skills and social adaptation in general.

The purpose of the study is to study the characteristics of the development of the lexical side of speech of primary schoolchildren with intellectual disability.

**Material and methods.** A focused study of the developmental features of the lexical side of speech in younger students with intellectual disabilities was carried out in January - February 2019 on the basis of the SEI "Auxiliary School № 26 of Vitebsk." The total number of people involved in the study was 20 primary school children with a diagnosis of F70 for ICD-10. The study involved students in grades 1–5 of the first department. The age range of the subjects is from 8 to 12 years. To study the level of formation and characteristics of the connected speech of children, a series of diagnostic tasks was used by G. Chirkina [2].

**Findings and their discussion.** An analysis of the results of the implementation by young schoolchildren with intellectual disabilities of the "Call in one word" methodology showed that the most generalized concepts are "fruits" and "vegetables" (95% of the subjects correctly and independently named these words). The naming of generalizing concepts: "shoes", "clothes", "flowers", "pets" and "wild animals" became quite successful for the subjects. These words were independently named in 90% of cases, the rest of the subjects needed the directing help, which they accepted. It should be noted that there are violations of sound pronunciation in a number of younger students with intellectual disability, which makes it difficult to understand the words they pronounce. For example, Cyril R. called the test subjects "domestic animals" as "homeless shishotnye," Arina S. called "clothing" – "Odessa."

Primary school students faced great difficulties in naming the concept of "transport". Only 65% of the subjects were able to independently name this concept. Moreover, the number of sound distortions in the naming of this word was more frequent (for example, "tatport", "tanzpot"). 25% of primary schoolchildren with intellectual disabilities used the description of the concept, and could not name it even after providing the experimenter with massive assistance (for example, "it all goes," "you can go and come"), that is, even in a passive dictionary they have this concept not yet formed. 20% of the subjects did not fully cope with this part of the task.

Significant difficulties for younger students with intellectual disabilities caused the name of such generalizing words as "plants" and "natural phenomena". Only 10% of students were able to name these concepts with the help of an experimenter. For 60% of the subjects, the use of the words "trees", "nature", "water", "weather", "flowers", "winter" or the replacement of generalizing concepts with words denoting action (for example, "grow in the forest" was characteristic, "Happens on the street", "grows in the garden").

The lack of formation of an active vocabulary of generalizing concepts in elementary school students with intellectual disabilities was reflected in the results of their implementation of the “What does it belong to?” Methodology. This methodology showed that assigning a group of words to students with intellectual disabilities to a single concept is easier than defining a concept to which one word belongs. Significant difficulties were caused by the reference to the concepts of the words “airplane”, “textbook”, “hammer” and “dragonfly”. When assisting the children on the part of the experimenter, most often the subjects replaced the supposed generalizing concepts and describe the actions characteristic of these objects. For example, Arina S. Instead of referring the word “airplane” to the concept of “transport” she said: “what flies.” 30% of the subjects defined the word “dragonfly” as belonging to the category of “animals”, that is, they used a more general concept in relation to the concept of “insects”. The word “lynx” caused the greatest difficulty, only 50% of students with intellectual disabilities were able to name the corresponding category after the help of an experimenter using a subject picture.

An analysis of the results of the implementation by young schoolchildren with intellectual insufficiency of the “What's around us?” Methodology showed that naming words (nouns) in the presence of visual support (subject pictures) is an easier option for them. So, 100% of children could name such words as “ruler”, “alarm clock” (20% of the subjects said “hours”) “horse”, “chicken” (20% of students said “chick”), “ship”, “rose”, “Flag”, “doctor”. However, not a single child named the word “lilac”. Such words as “airplane” and “nail” were replaced by 20% of the students, we describe the actions characteristic of them: “daddy clogs”, “flies in the sky”, which demonstrates the awareness of their perception of these objects, but the insufficient formation of these concepts in the active dictionary. 10% of elementary school students replaced the word “airplane” with “helicopter”, “wolf” with the word “dog”, which demonstrates the insufficient differentiation of these concepts.

When performing the method “Who, from whom?” The following results were obtained. None of the subjects could complete this task completely. 25% of primary schoolchildren with intellectual disabilities did not name the corresponding words denoting cubs of animals, but formed from the names of animals words in a diminutive sense. For example: “sheep”, “goat”, “piglet”. 70% of students with intellectual disabilities were able to name the cubs of the following animals: “cow”, “squirrel”, “hedgehog”, “wolf”, “fox”.

**Conclusion.** The results of an experimental study showed that the lexical side of speech of younger students with intellectual disability is characterized by a qualitative originality. These features include: insufficient passive and active vocabulary, including the corresponding dictionaries of generalizing concepts; replacement of generalizing concepts with a description of their meaning; the impact of poor-quality pronunciation on the understanding of the words spoken by the listener; a predominant description of the actions typical of the object, the

presence of difficulties in including characteristic properties of the object in the description of the object; - significant quantitative difference between passive and active dictionary.

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## **PROBLEM OF DEVELOPMENT OF COMMUNICATIVE SKILLS OF STUDENTS WITH MODERATE INTELLECTUAL INSUFFICIENCY**

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The development of communicative skills of adolescents is one of the most important problems at the present stage of development of social relations. In adolescence, one of the leading activities is communication. However, adolescents with special psychophysical development to one degree or another experience difficulties in expressing their own feelings, mutual understanding with others. At the same time, the development of elements of a communicative culture will allow adolescents to more successfully realize their potential, more successfully undergo socialization in modern society. T.L. Leshchinsky, A.N. Konopleva, A.M. Zmushko and others believe that it is possible to effectively develop the communicative skills of adolescents with special needs in psychophysical development through the team in the educational process, especially in integrated education classes.

Among the variety of problems of modern psychology, pedagogy and speech therapy, the problem of communication is one of the most significant and interesting. Children with special needs of psychophysical development to a greater extent than their normally developing peers experience communication difficulties. This is due to several reasons, and above all, the insufficient level of speech development in this category of children. The formation of the communicative side of speech in children with special needs of psychophysical development was dealt with by such domestic authors as L.S. Vygotsky, S.D. Zabravnaya, A.R. Mahler, L.M. Shipitsin et al. Among foreign authors, one can distinguish U. Kristen, L. Nyukanen, H. Rückle and others [1]. Pupils with intellectual disabilities to one degree or another experience difficulties in expressing their feelings, understanding with others. Mastering the elements of a communicative culture will allow adolescents with moderate intellectual disabilities to more successfully realize their potential, more successfully undergo socialization in modern society [2].



The purpose of the study is to study the features of the formation of communication skills in adolescents with moderate intellectual disability.

**Material and methods.** A purposeful study of the features of the formation of communication skills in adolescents with moderate intellectual disability was carried out in February - March 2019 at the GUO “Auxiliary school № 24 of Orsha”. The total number of people involved in the study was 15 people with a diagnosis of F71 according to ICD-10. The study involved students in the second department of a secondary school. The age range of the subjects is from 12 to 15 years (EG). The control group consisted of normally developing students of the State Educational Institution “Secondary School № 7 of Orsha”: 15 students of grades 1–2. The experimental study was carried out in the form of standardized observation of two groups (experimental and control), using the research form proposed by O.E. Smirnova [3].

**Findings and their discussion.** The results of the study showed that adolescents with moderate intellectual disability are characterized by an extremely low level of development of speech activity. In the process of conducting a standardized observation, 90% of the EG subjects were mostly silent, very rarely asked questions themselves or answered questions. Of course, the situation is the opposite of that described for younger students of a comprehensive school, only 5% of students in the CG were assigned to a low level of development of speech activity.

Significant differences are observed when analyzing the results obtained by the subjects of the EG and the CG in terms of “initiative” as a criterion for determining the level of development of communication skills. So, a high level of initiative was noted only in 5% of students in the second department of a secondary school, in 70% of cases in the EG there was a low (in some cases this can be described as extremely low) level of initiative development. So, many teenagers in the EG did not independently show any activity towards classmates, played alone or passively followed other schoolchildren or a teacher. All students with moderate intellectual disability experienced impaired sound pronunciation. The meaning of the words used by students of the EG is inaccurate, indistinctly delimited from each other, vague.

It should be noted that the sensitivity of communication involves an emotional and effective response to the initiative of a communication partner. Considering that adolescents with moderate intellectual disabilities have a low and extremely low level of initiative in communication (according to the results of the study), in the process of organized communication there was no high initiative for communication, which could be sensitively reacted to. Therefore, if there was a communicative initiative on the part of peers / teacher, the indicators for this diagnostic criterion could be higher. This circumstance must be taken into account when drawing up and implementing correctional and developmental programs for the development of communication among adolescents with moderate intellectual disabilities, providing for their inclusion in a more proactive communication environment.

Similar results were obtained when analyzing the needs of subjects in emotional communication with people. So, only 5% of students in the second branch of the auxiliary school showed a high level of this type of need. The results of the analysis of the level of development of contactivity showed the presence of significant problems in adolescents with moderate intellectual disability with the organization of any type of activity in a pair or group. Thus, not a single subject of the experimental group showed a high level of contact development. For example, there are violations in the knowledge of the rules for adjusting communication, the beginning and the end of contact: when addressing the interlocutor, EG students rarely use polite words, forget to apologize, if necessary (for example: - Remove this one. - Come here). Kinematic attitudes are also violated: the guys do not always think about how they look when talking, whether it is pleasant to look at their interlocutor. Often children sit on chairs lounging, actively waving their arms, shake a chair, get up from their seats or even complete a task while standing. This is observed in 60% of students. In addition, there are undesirable means of communication, manifested in the use of rude words, expressions, treatment not by name, sharpness.

The most important component of a high-quality communicative process is a sufficient level of development of emotional control over the process of interpersonal interaction. The results of an experimental study showed a lack of development of this component of communication in adolescents with moderate intellectual disability. So, 80% of the subjects of the experimental group have a low level of emotional control of interaction, demonstrating a desire for a familiar circle of communication or for the preference for loneliness in the process of completing a task.

**Conclusion.** The results of an experimental study showed the presence of significant difficulties in adolescents with moderate intellectual disability in organizing a communicative process with peers. These difficulties are observed at all levels of communication. The direct influence of the intellectual development of children on the formation of communication skills is noted: the lower the intellectual development of the child, the lower his knowledge of communicative skills.

Thus, one of the priority areas of correctional and developmental work with adolescents with moderate intellectual disability (the second branch of the auxiliary school) should be specially organized pedagogical activity to form their communicative skills.

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## DEFINITION OF CRITERIA FOR SELECTION OF MUSIC AND SONG REPERTOIR FOR MUSIC LESSONS

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The purposes, tasks and content of secondary education in the Republic of Belarus are regulated by regulatory legal acts that determine, in particular, the number of hours allocated to study subjects. In accordance with the order of the Ministry of Education of the Republic of Belarus No. 44 of April 29, 2019 on standard curricula of general secondary education, the subject “Music” is studied in a comprehensive school from grades 1 to 4 inclusive [1].

According to the educational standard of primary education of the Republic of Belarus [2], one of the most important tasks is the spiritual and moral development of students, and this task is the main one for the subject “Music”. With the help of music, students can enrich their inner world and form basic spiritual values. Also, in music lessons in elementary school, the development of creative abilities takes place at the last stage of all activities in a music lesson (singing, musical rhythmic movements, playing basic musical instruments). The development of creative abilities is an important problem in the school today, because modern requirements for students require the development of a comprehensive personality. This fact determines the relevance of our study. The central problem of the music lesson is the choice of a musical repertoire that defines the content of the lesson.

The purpose of this research is to find and apply the most effective selection criteria for a musical repertoire.

**Material and methods.** The research material is based on the experience of organizing and conducting music lessons in elementary school. The organization of the study was based on the analysis of special scientific, methodological literature (D. B. Kabalevsky, B. V. Asafiev, E. G. Gulyaeva). Research methods: theoretical (analysis of the literature on the research topic), empirical (observation, generalization of the pedagogical experience of a music teacher). An experimental study was conducted in the educational institution “Vitebsk gymnasium No. 4” at music lessons in third grades numbering 18-25 people.

**Findings and their discussion.** In music lessons in elementary school, the musical culture of students is formed as part of their overall spiritual culture. That is, the main purpose of the lesson is not to educate a musician, but to develop a highly moral, spiritual personality by introducing a younger student to musical art. With the help of music, students learn both the objective and the mental world, they can feel musical images based on their own life experience. This makes the lesson as close as possible to the reality and lifestyle of students. At a music lesson, a teacher should carry out an educational process aimed at

educating students of a highly spiritual and moral personality. This is consistent with the concept of D.B. Kabalevsky, which underlies music education [3].

For the effectiveness of the process of developing the student's spiritual and moral personality and developing his creative skills, we proposed criteria for selecting a repertoire based on the content and concept of the subject "Music", as well as the purposes of secondary education. We have selected and formulated the following criteria:

1. The aesthetics of the musical and song repertoire. Music should positively influence students' feelings and bring them positive emotions.

2. Correspondence to the physical and psychological age of students.

3. The musical repertoire should have an educational function, that is, educate a highly moral person.

3. A mandatory requirement for a repertoire is its cognition. Through musical activity in the classroom, students learn about the world around them, experience it through their own feelings.

5. Also in the repertoire of the song should be works that foster patriotism, love for the motherland and a tolerant attitude towards various peoples.

A key element of the content of a music lesson is the musical and song repertoire, and the determination of the criteria for its selection is the most important factor determining the effectiveness of the lesson. In the modern world, there are many musical works of different levels and complexity, and the task of the teacher is to choose a musical and song repertoire that will perform educational functions.

Based on the curriculum of the lesson "Music", we used these criteria to select a musical and song repertoire, without going beyond the scope of the program. The students were offered to listen to additional works, selected on the basis of the above criteria. For example, to the topic "Intonation", in addition to the musical compositions available in the program, we invited students to listen to the traditional Belarusian songs "А ў полі вярба" and "Гарні, гарні бульбу з печы", which reveal Belarusian national traditions and contribute to obtaining knowledge about the history of our people. In the topic "The structure (form) of music", students were offered a variation on the theme of the Russian folk song "Там за речкой" by V. Zhigalov and the Belarusian folk song "Як пайду я па-над лугам" which, in addition to the high aesthetics of the works themselves, make it possible to learn the world through music.

**Conclusion.** The key role in the music lesson is played by the musical and song repertoire, which determines the content and effectiveness of the lesson. Our selection criteria for material help the teacher select additional material that is interesting to children because of its conformity with the level of development of the student, and will also carry important components for the implementation of the main purposes of the concept of the lesson "Music" and the tasks of the educational process aimed at developing a comprehensive, moral personality.

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**SOCIAL PARTNERSHIP AND COOPERATION  
OF THE PARTICIPANTS OF THE EDUCATIONAL ACTIVITY AS A  
MEANS FOR REALIZATION OF IDEAS OF SUSTAINABLE  
DEVELOPMENT AND EDUCATION  
FOR SUSTAINABLE DEVELOPMENT**

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The integration of educational practices and sustainable development is the main trend of the social process in the XXI century. Nowadays we have a clear understanding: it's impossible to prepare the person for the future without participating in its everyday life, without building and development of relationships and cooperation of educational institutions with different social partners.

The purpose of our research is to study the formation of social partnership and cooperation in the state educational establishment "Gymnasium № 4 of Vitebsk".

**Material and methods.** In compiling this article we used such methods as collecting the information about the work activity of the educational establishment within cooperation and social partnership as a means for realization of ideas of sustainable development and education for sustainable development, and its further analysis and generalization.

**Findings and their discussion.** The leading idea of the teaching staff of the state educational establishment "Gymnasium № 4 of Vitebsk" is to create necessary conditions to ensure personal development for the sustainable development. Our gymnasium is a member of the Association "Education for sustainable development" and Vitebsk regional resource center for comprehensive support of education for sustainable development.

The state educational establishment "Gymnasium № 4 of Vitebsk" offers opportunities for its students and teachers and builds a multi-vector social



partnership. At the same time, gymnasium is working closely and purposefully on the formation of partnership fields of internal social partnership.

Our management means are social projects such as "An excellent student", "Active class", "Self-organization", "Parents' lessons", "I'm frugal and my family is too", "Give a helping hand", "The children tell about the war". Different interesting forms of cooperation allow to strengthen the internal social partnership of the participants in the open gymnasium's community. The work on the improvement of the gymnasium's territory has been lasting for 15 years and attracts all members of the community: teachers, students, legal representatives of students, chiefs, plants and institutions of Vitebsk, the residents of the neighborhood. All of the members are interested in the work of the gymnasium.

It's necessary to build an external social partnership. Our educational establishment cooperates with people living in the district of gymnasium № 4, local authorities, educational and cultural institutions, public associations, organizations and plants of Vitebsk and mass media. There are such projects as "Ecological path "Yurieva Gorka", "Day without a car".

There was a project "Ecological health of the neighborhood." It was made on the basis of appeals of citizens living in the district with help and support of the Department of ecology of Vitebsk State University and urban meteorologists. Our students have conducted an inventory of wells, which are located in the streets next to the cemetery. The received information was discussed at the meetings of section of biology and chemistry. The scientific consultant of our scientific society of students «Altair» was Professor, the head of the Department of Biology of VSU. Students' works were highly appreciated at the regional scientific and practical conference. Water was laid in the streets next to the cemetery by the decision of the city Council of deputies and then most streets were gasified.

The management of Vitebsk plant of electrical and measuring tools received an order for the production of electrical equipment for Physics and Chemistry classrooms. The plant carried out test on the basis of our gymnasium and then transferred necessary equipment to us.

Another interesting form of cooperation is a public presentation of activities and products pack "Polymerconstruction". Students visited the company together with their teachers, where they had a tour. Students got acquainted with the main directions of the plant and received materials for the presentation. "Polymerconstruction" hold a drawing competition "Clean water" among the students of our school and gave prizes to the winners. As a result we received 2 personal computers.

Our cooperation with establishments of higher education has become a significant form of social partnership and development. On the basis of our (research and creative) project "Formation of pupils in the conditions of functioning of system "School-University" (together with VSU) was created an

educational-scientific-consulting center which exists since 2011. The results of cooperation are new ideas, participation and co-working of our students during different research projects, scientific consulting of students' research works, conducting optional classes on the basis of the University, creative work of teachers and students, many scientific and practical conferences.

There were bright and memorable forms of external social partnership. The projects were organized by the state educational establishment "Gymnasium № 4 of Vitebsk". The conference "Eco View", the festival "The history of Dvina region as the dialogue of peoples and cultures", a competition of computer graphics "DiditalArt", which was recognized in 2009 as regional. The main partners in projects – "Belarusian Union of artists", Vitebsk regional Committee of natural resources and environmental protection, the "Vitebsk regional center for Hydrometeorology and environmental monitoring", plants of Vitebsk, the "Vitebsk regional Institute of educational development".

Cooperation with gymnasiums from the Russian Federation exists since 2006 and is a successful form of social partnership and international co-working on a regular basis.

There is a local website for information about gymnasium's activities. Also there is a press-center of our gymnasium publishing the newspaper and the magazine "World around us".

In today's world ... it is very important to be able to prepare students to do work that doesn't exist now, to use technologies that haven't been invented yet, to solve problems that we don't think at the moment about " [1, page 1]

**Conclusion.** One of the main aims of gymnasium is to ensure the process of transfer of social experience, which allows the young successfully adapt to the new social and economic conditions.

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## **FEATURES OF AGGRESSION AND SELF-REGULATION OF STUDENTS WITH INTELLECTUAL INSUFFICIENCY**

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The aggressiveness of schoolchildren with intellectual disabilities was studied by V. I. Lubovsky, O. V. Khukhlaeva, T. B. Epifantseva and others. Unconsciousness in the manifestation of negative emotions, low level of volitional regulation of behavior, especially in conflict situations, the discrepancy between the behavior of neither the situation in which the child is, nor the irritant caused by the aggressive reaction, the tendency to imitate and the

intellectual deficiency in children of this category prevent them from adequately assessing the environment and correctly responding to it to respond [1]. Children with intellectual disabilities are characterized by extreme underdevelopment of volitional qualities, often they act according to suddenly arising desires. The most pronounced violation of self-regulation is manifested in the educational activities of children in this category. Since the natural factor plays a large role in the formation of self-regulation as a general ability to learn, the depth and degree of organic brain damage in intellectual deficiency, the characteristics of the nervous system of children of this nosological group lead to significant violations of personal self-regulation [24]. Self-completion of educational tasks for students with intellectual disabilities is difficult, as the intention to complete the task is quickly exhausted.

These features are even more pronounced in the presence of a child with intellectual insufficiency of the current disease - epilepsy. Aggression in children with epilepsy can be observed before the attack, at the time of the attack and the interictal period. In the prodromal period, children develop irritability or verbal aggression. During an attack, aggression is extremely rare. Aggression is also possible in children with the development of post-attack psychosis. According to a number of authors, the development of psychoses is based on epileptic disorders of neuron activity mainly in limbic structures associated with the regulation of emotions, motivation, and complex automatic forms of behavior [2].

The purpose of the study is to determine the characteristics of aggressiveness and self-regulation in schoolchildren with intellectual deficiency of various nosological groups.

**Material and methods.** The study was conducted from January to March 2019 on the basis of the State Educational Institution “Auxiliary School № 26 of Vitebsk”. The study involved two experimental groups of students. The first group consisted of 10 students with a history of intellectual disability (EG1), the second group consisted of 10 students with intellectual disability combined with epilepsy (EG2). The following psychodiagnostic methods were used as research methods: Rosenzweig test - the methodology of picturesque frustration (children's version), Wagner's “Hands” test.

**Findings and their discussion.** The results of the study showed that some frustrating situations, due to the intellectual defect of the subjects, were not perceived correctly by students, they did not understand the hidden meaning of events, and sought to describe the depicted situation. For example, test subject Denis I., in a situation where boys stole apples from someone else's garden, replied: “Sorry that I am running, I will no longer run near your garden”. Subject Milana Sh. In a situation where a woman and a girl are shown, who points to something in the closet, replies: “The girl's name is Alice. She is resting”. These responses were not interpreted (6.25% of cases).

In EG1 students, all three directions of reactions were noted. A larger percentage belongs to intropunitive reactions, it makes up 36.7% (for example, test subject Denis I. in a situation where mom says: “You are an ill-bred child, you cut off my flowers!”), He replies: “Yes, I am an ill-bred child”); the smallest percentage is for impulsive reactions, it is 21.25% (for example, test Yegor K. in a situation where the boy says: “I’m very sorry that I accidentally broke your house”, replies: “It doesn’t matter, we’ll build another house” ) Extrapunitive reactions accounted for 35.8% of the total number (for example, test Valeriya T. in a situation where the girl says: “You broke my most beautiful doll!”), He answers: “And you broke mine!”). 6.25% are situations that cannot be interpreted due to the peculiarities of thinking in this category of children.

The results of a study using the Rosenzweig method showed that in EG2 students, extrapunitive reactions come first (62.5% of cases). Intropunitive reactions accounted for 17.5% of the responses of EG2 subjects. Impulsive reactions amounted to only 4.6%. Comparative indicators of the types of reactions to the frustrating situation of the tested EG1 and EG2 are presented in Figure 1.1.

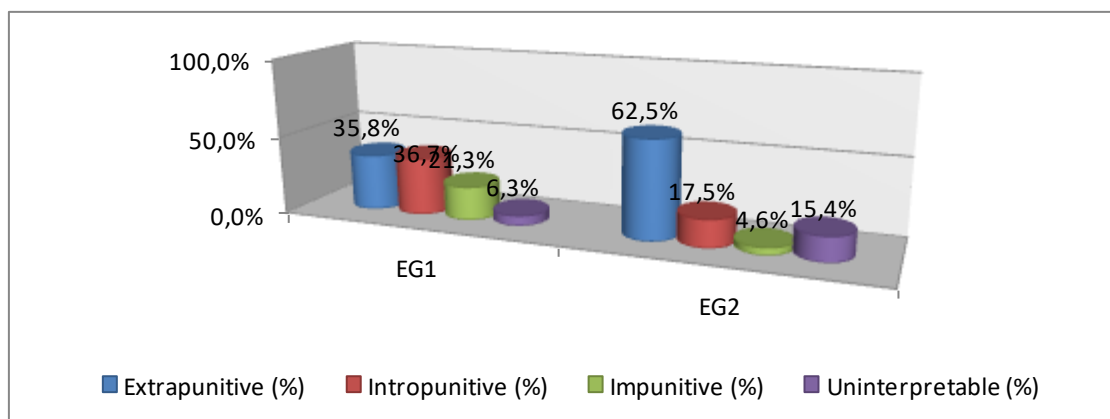


Figure 1.1 - Comparative indicators of the types of reactions to the frustrating situation of the tested EG1 and EG2 (in%).

It should be noted that the subjects of EG2 understood the depicted situations worse, could not give a definite answer. The execution of the Rosenzweig technique was accompanied by “explosiveness”, irritability, aggressiveness (for example, test subject Ilya K. in a situation where my mother says: “I gave the last piece to your brother”, shouts: “You can’t give it to your brother!”).

The results of studying the features of the manifestation of aggressive behavior in students with intellectual disability (EG1) and students with intellectual disability in combination with epilepsy (EG2) according to the Wagner test are presented in table 1.1.

Table 1.1. – Comparative results of the manifestation of aggressive behavior in students of EG1 and EG2 according to the Wagner test (in%)

	EG1	EG 2
Aggression	9,1%	21,6%
Note	3,5%	2,7%
Fear	1,5%	5,2%
Emotionality	11,9%	8,8%
Communication	5,6%	6,0%
Dependence	2,8%	0,3%
Demonstration	5,8%	4,9%
Mutilation	7,4%	10,9%
Active impersonality	23,3%	25,4%
Passive impersonality	12,4%	3,8%
Description	16,7%	10,4%

In students EG2, compared with EG1, several times higher than the rate of aggression. This suggests that in children with intellectual disability in combination with epilepsy, aggressive behavior and aggressive reactions are more often observed and more pronounced. Moreover, aggressiveness is manifested both in the forms of fear or dependence, and in the form of self-aggression.

**Conclusion.** An experimental study showed that in students with intellectual disability and in students with intellectual disability, in combination with epilepsy, aggressive reactions and aggressive behavior are observed, aggressive reactions are manifested in the form of fear, dependence, self-aggression. In subjects with a history of epilepsy, irritability, nervousness, unwillingness to complete the task upon presentation, and a lack of self-monitoring function were more pronounced. In turn, students with intellectual disabilities who have no history of epilepsy predominantly had a calm emotional background of mood, signs of irritability and nervousness were not observed, most students had self-control of their activities.

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## THE THEATRICALITY OF FAIRY-TALES OF G. SHAKULOVA WITHIN THE ENVIRONMENTAL, AESTHETIC AND CIVIL- PATRIOTIC UPBRINGING OF THE YOUNGER GENERATION

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Social-pedagogical project «National traditions through the eyes of the youth of the XXI century» was carried out at pedagogical department VSU named after P.M. Masherov (coordinator – docent of the music chair candidate of pedagogical sciences, docent Sused-Vilichinskaya U.) The aim of the project is to form socially active personality by means of Belarusian folklore upbringing of respect to historical-cultural of personal creative qualities [1].

One of the components of the project «National traditions through the eyes of the youth of the XXI century» is promotion of G. Shakulov's (1910 – 1987) creative work. His fairy tales are of great interest not only for primary school teachers in the frame of ecological, moral and patriotic upbringing but also for leaders of amateur talent groups of musically-theatrical collectives. Fairy-tales by Shakulov G. «Phenik-Ur and Ryandocka», «Cockerels and Andrew-sparrow», «Granny Alyona» were translated into Belarusian and were taken to the repertoire of the folklore collective «Zorachki» SEE «Gimnasium №1, Vitebsk». Within the bounds of the youth of the project «National traditions through the eyes of the youth of the XXI century» joint staging of the faire-tale by Shakulov G. «Topolyok and Lebeda» was realized by the folk collective of pedagogical department «Vyasyolka» and the exemplary folklore collective «Zorachki». For musical underneath of Shakulov's fairy-tales Belarusian folk songs and authentic folklore of Vitebsk region are used.

The aim of the article is analysis of possibilities of stage implementation within the bounds of using authentic folklore of Gorodok district.

**Material and methods.** The research was carried out on the basis of SEE «Gimnasium №1, Vitebsk» (exemplary folklore collective «Zorachki») of the pedagogical department VSU named after P.M. Masherov (folklore collective «Vyasyolka»), SEC «Traditional culture and folk creation centre of Veremeevka Village Culture House of Gorodok district» (children's miniature theatre «Logline»). Methodological basis of the research are the works by Butenko N., Varfolomeeva T., Lubomudrova A. Methods of analysis comparison, generalizing and also practical methods were used.

**Findings and their discussion.** Children miniature theatre «Logline» was created on the basis of Veremeevka village House Culture of Gorodok district in 2012 (leader – Orlova S.). The participants of the collective are 10-15 girls from 8 to 15 years old. The repertoire of the miniature theatre make up plays and sketches by modern poets, publishing their creative works on the Internet literature sites. Staging material is offered by the leader after thorough analysing

and selecting. On one of the rehearsals young actors got acquainted with Shakulov's biography and creative work and with chronicle of «Zorachki» collective of SEE «Gimnasium №1, Vitebsk» as well.

Shakulov G., a native of Pavlovichi village, Vitebsk district left primary country school, then secondary school and pedagogical technical school in Vitebsk in 1931. His first verses were written there in the Belarusian language. Shakulov G. decided to continue his education in Leningrad at the evening worker faculty, working at «Dvigatel» plant at the same time. After graduating from Leningrad Forestry Engineering Academy he worked as an appraiser and was engaged in literature society of «Lesnaya truth» newspaper editorial office, gained skills at Writer's House named after Mayakovskiy V. During the Great Patriotic War Shakulov G. protected Leningrad, took part in Leningrad blockade breakthrough and was wounded. While being among the Motherland defenders he published his verses and stories on front newspapers pages.

After the end of the war Shakulov G. was demobilized from the army and returned to his prewar profession of a forester, florist, a working-plan officer and a gardener in cities and towns of the Soviet Union. But his literary work wasn't stopped. When his daughter Nina was born he started writing fairy-tales. In 1953 these fairy-tales were awarded at the contest, organized by the Crimea department of the Writers' Union of the USSR and the Crimea regional editorial office for the best literary work for children. The last twenty-six years of his life Shakulov G. and his family lived in Vitebsk worked at Oblproekt (now «Vitebskgrazhdanproekt Institution»), cooperated with «Vitebskiy Rabochiy» newspaper.

The story of Shakulov G. and his fairy-tales impressed the participants of the miniature theatre «Logline». The decision to include the fairy-tales «How a bee looked for a linden» into the collective's repertoire was taken. The heroes of the fairy-tales were unusual enough: Oak, Grey Alder, Aspen, White Birch, Fir-tree, Linden, Goat's Willow and Deaf Alder. Goat's Willow is in the Red Book of Rostov Region and Death Alder is just a deaf character. The family Bee is represented by Mother-Bee and her four children. Stage play supposes introducing one more character, that isn't the fairy-tale, – the Sun, that will show by its appearance changing day and night. This is a wordless role whose characteristic features are a costume and plastic improvisation. To concretize actions and strengthening moral impact on spectators the words of the author were turned into a dialogue of two interlocutors.

The translation of the fairy-tales «How a bee looked for a linden» into Belarusian needed a musical composition within the bounds of Belarusian folklore. Preference was given to authentic folklore of Gorodok district. In the result of studying of the materials of ethnographic expedition by Varfolomeeva T. were chosen the following compositions: round dance «Kupalinka» written in the village of Verechye, Gorodok district at Mandrik N. (1927 year of birth), Shavni N. (1935 year of birth), Drozdova N. (1935 year of birth), Yerofeeva L.

(1936 year of birth); song «A na dvori smirlaitsa» and «A spasiba tamu», written in 1998 in the village of Vyshadki and Maskalenyaty, Gorodok district at Marozova M. (1917 year of birth)[2]. The lullaby «Idzi katok u lauku...» wasn't recorded in the materials of ethnographic expedition by Varfolomeeva T. It was represented by deputy director of DEC «Centre of traditional culture and folk art of Gorodok district» Rezkina L. The lullaby was recorded in 2016 in the village of Verechye, Gorodok district at Shavni N. (1935 year of birth).

**Conclusion.** Children miniature theatre «Logline» in its theatrical interpretation of G. Shakulov's fairy-tales «How a bee looked for a linden» aims not only to show the author's idea that nature and its dwellers are of great importance. Theatrical, music and dancing expressive means, that are used in the staging of the fairy-tale encourage aesthetic and civil-patriotic upbringing of the growing generation.

In 2020 there will be 100 anniversary since G. Shakulov's birthday. It will take place at SE «Vitebsk Regional library named after V.I. Lenin» and Vitebsk Local Love museum. Children miniature theatre got an invitation to this event by the anniversary holidays organizer.

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## **SPECIFICITY OF THE DEVELOPMENT OF IMPRESSIVE SPEECH IN PRESCHOOL CHILDREN WITH INTELLECTUAL DISABILITY**

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The problem of developing approaches to the development of speech in children with intellectual disability are presented in the works of L. S. Vygotsky, O. S. Ushakova, A. R. Maller, G. V. Tsikoto, M. I. Lisina and others. in the works of L. N. Efimenkova, I. N. Sadovnikova it is noted that the speech of children with intellectual disability can not be brought up by itself, without systematic and purposeful classes, since children with this category have reduced motivation for speech activity and communication. Therefore, it is necessary to constantly create conditions that encourage a child with intellectual disability to speak [1].

Speech function is one of the most important human functions. In the process of speech development, he formed the highest mental forms of cognitive activity, the ability to think. Speech is not an innate ability, but develops in the

process of ontogenesis in parallel with physical and mental development, and serves as an indicator of its overall development.

In preschoolers with intellectual disability, the prerequisites for the development of speech are not formed in a timely manner. As a result, this category of preschoolers speech development at all stages is with significant distortions and violations. Violations in its development are noted at all stages, affects all levels of language: phonetic, morphological, lexical, syntactic [2].

Understanding speech at the elementary level becomes available to preschoolers with intellectual development disorders much later than their peers with normal development. It is noted that in the older preschool age, some children do not understand up to 30% of phrases in adult speech. Are available understanding only ordinary, often meet in household phrase [3].

Purpose - to study and analyze the features of the development of speech comprehension in preschoolers with mild to moderate intellectual disability.

**Material and methods.** The experimental study was conducted in February-March 2019 in the SEI "Special kindergarten № 1 of Vitebsk". The experiment involved 20 children aged 5-8 years with mild to moderate intellectual disability (F70, F71). As research methods we used the following task: "Show called items", "to Indicate items call", "the Presentation of pictures", and "action Understanding", "Understanding action in the picture", "Presentation "conflict" pictures," "Understanding, words denoting signs", "Mixed blocks", "Color cards", "Monitoring of speech understanding children."

**Findings and their discussion.** Analysis of the results of the experimental study showed that all preschoolers with intellectual disability to some extent have underdevelopment of impressive speech. Thus, when performing the diagnostic task "Show me the objects" only 20% of subjects completed the task completely, 10% of preschoolers with intellectual disability coped with the task partially and have a high level, 30% of children have an average level of performance, 10% - demonstrated a low result and 35% of subjects completely failed the task.

The results of the survey showed that only one child (5%) from the experimental group faultlessly coped with the task "Presentation of pictures with objects", 15% of participants in the experimental study have a high level of performance of the task (perhaps some words were not familiar to children; some children repeated the words several times). The average level of performance of the task have 25% of children-performed the task partially, which in some cases is associated with high distraction and low motivation to the process of completing the task. Low level of understanding of speech at the level of the subject vocabulary have 25% of subjects and 35% of preschoolers with intellectual disability did not cope with the task at all (not involved in the activity, did not see the pictures).

Analysis of the data obtained from the results of the diagnostic task "Presentation of pictures with objects", which are presented in diagram 1,

showed that almost 60% of the range of values is reduced to a low level of performance of the task. This means that preschoolers with intellectual disabilities have a much harder time recognizing objects depicted in pictures compared to natural objects.

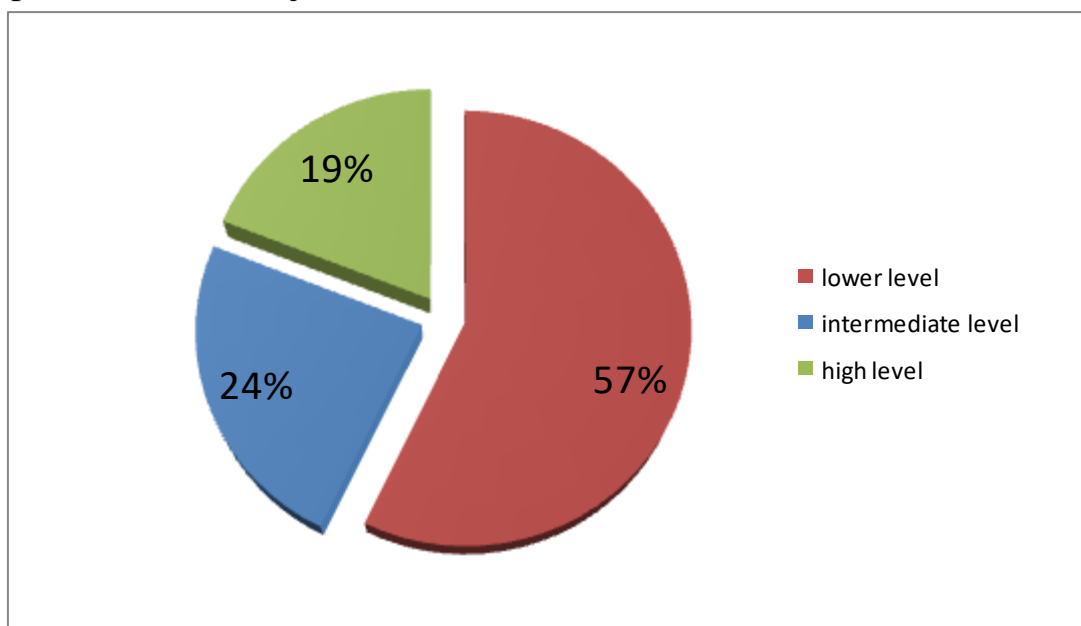


Diagram 1 – Quantitative indicators of the level of understanding of speech by preschoolers with intellectual disability when performing the task "Presentation of pictures with objects" (in %)

The analysis of the participants of the experimental study of the technique "Understanding of actions" showed that the majority of children from the group of subjects (75%) do not understand more complex verbal structures (simple phrases), they do not have access to the process of correlation of these actions with plot pictures, because the process of understanding the reversed phrasal speech suffers.

It should be emphasized that the process of observing the impressive and expressive speech of children in the process of play and free activity allowed to reveal the following qualitative features: echolalia; replacement of speech with loud, often inadequate sounds; extremely limited vocabulary (sometimes no more than 5 simple words); lack of reaction to the interrogative intonation of the speaker's speech and others.

**Conclusion.** Thus, it can be said that only 25% of the group surveyed has a relatively high (sufficient) level of performance of tasks on the understanding of speech, 17% - have an average level and 60% of preschoolers with intellectual disability are characterized by a low level of development of impressive speech. The most significant difficulties in this category of children were caused by tasks to understand the plot pictures and words denoting the signs of objects. The revealed characteristic features of the development of speech



comprehension by preschool children with intellectual disability indicate the need for the organization of various corrective measures to form a better passive vocabulary in preschoolers of this nosological group.

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## **FEATURES OF MANIFESTATION OF FEARS AND ANXIETY IN CHILDREN WITH EARLY CHILDHOOD AUTISM**

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Currently, one of the topical issues of correctional pedagogy is the development of the content of psycho-correction work of the teacher-defectologist with children with severe and multiple developmental disorders, including the development of their emotional sphere, overcoming anxiety and fears.

Children with early childhood autism belong to the group of children with severe developmental disorders. As shown by the data of special experimental psychological studies (V. V. Lebedinsky and O. S. Olikheiko), fears occupy one of the leading places in the formation of autistic behavior. But sometimes the fears of the child still reflect the positive dynamics of mental development. They indicate the emergence of a more adequate perception of others about the emergence of a sense of self-preservation [1]. In children with autism, there is a high intensity of fears and increased fixation on them. The very fact of fear is natural. Unusual is the sharpness of this reaction and its irresistibility.

Fears in children with autism can be caused by both internal and external factors. Internal factors include hypersensitivity of a child with autism, which manifests itself in increased sensitivity to sound, light, tactile, vestibular and other sensory influences [2].

All sorts of fears occur in children with RDA in 80% of cases. In 72% of cases – super-valuable fears. Fear of loneliness, heights, fear of stairs, strangers, animals, darkness. In 35% of cases – fears caused by sensoaffective hyperesthesia. Fears household noises, bright lights, shiny objects, sharp tones of the clothes of others, fear of flashes of light. In 11% of cases – inadequate, delusional fears. Fears of objects of indeterminate color or shape (for example, fear of everything round or fear of red). The persistent feeling of someone's presence, the fear of his shadow, the fear of ventilation grates [3].

The aim is to study the specificity of anxiety and fears in children with severe and multiple developmental disorders (early childhood autism with intellectual disability).

**Material and methods.** The experimental study took place from March 2019 to May 2019 on the basis of the SEI "Vitebsk state auxiliary school № 26" and SEI "Vitebsk city center of correctional and developmental training and rehabilitation". Each subject studied the level of manifestation of anxiety and fears. In the framework of this experimental study, the results were compared between primary school children with intellectual disability (total number-10 people of primary school children with intellectual disability aged 8 to 11 years) and children with severe and multiple developmental disorders (total number-8 children with severe and multiple developmental disorders aged 5 to 14 years). As psychodiagnostic techniques in the experimental study were used: "anxiety Test" (Temple R., Amen V.), "Methods of diagnosis of children's fears" (A. I. Zakharov), a conversation with teachers and parents of children.

**Findings and their discussion.** The study of the level of anxiety in children with intellectual disability showed that 70% of younger students with intellectual disability have an average level of anxiety, 20% have a low level of anxiety and 10% have a high level of anxiety. However, younger students with intellectual disability have an average level of anxiety – 70% of cases. It should be noted that a high level of anxiety is particularly evident in certain situations related to relationships with adults. Thus, the high level of anxiety in the child-adult dyad is 60%, the average level of anxiety in the child-child dyad is 25%, and the low level of anxiety in situations modeling everyday actions is 15%.

The study of the level of anxiety in children with severe and multiple developmental disorders (early childhood autism with intellectual disability) showed that 88% of children in this category have a high level of anxiety, 12% have an average level of anxiety. These results illustrate the following typical examples of job performance.

During the study, the subject M. in 7 cases out of 14 chose a sad face. When demonstrating and explaining the drawing, in which the girl goes to sleep alone, chose a sad face, and explained her choice as follows "a Girl without a mother." When demonstrating the drawing, in which the mother scolds the girl, she chose a sad face, and explained her choice: "Mom is angry." At demonstration of drawing on which the girl with parents is represented M., chose a cheerful face, having explained: "Mother nearby". This example shows that the child in General has a high level of anxiety, including in the dyad "child-adult" and in situations modeling everyday actions.

The study of fears in younger students with intellectual disability showed that 70% of the subjects are dominated by medical fears, 15% physical, 10% - fears of nightmares and darkness, and 5% – social fears. Fear of death, fear of animals and fairy-tale characters, spatial fears were not revealed.

The study of fears in children with early childhood autism showed that 80% are dominated by social and spatial fears, 15% are dominated by fear of animals and fairy-tale characters and 5% - dominated by medical fear. Physical fear, fear of death, fear of nightmares and darkness were not revealed. Due to the fact that the subjects with early childhood autism did not make contact well, a conversation was held with parents and teachers. For example, the mother of the subject told about the fears of N.: "He is very afraid to be alone in the room, but at the same time does not like when they start to play with Him or ask something. If the yard is suitable unfamiliar children N., begins to cry and asks to take him home. N., it is not like the process of dressing, new clothes can immediately break". This suggests that the child is dominated by social fears, there are also spatial fears.

A comparative analysis of the interpretation of fears shows that in children with severe and multiple developmental disorders (early childhood autism with intellectual disability), some fears are incomprehensible to others, more pronounced than in younger students with intellectual disability. In addition, subjects with severe and multiple developmental disorders (early childhood autism with intellectual disability) refused to perform the technique in the form of a conversation, withdrew into themselves, which is associated with a violation of the emotional connection with the world in children of this category. Younger students with intellectual disabilities responded with incomplete sentences, sometimes they needed the help of an experimenter to explain concepts.

**Conclusion.** Thus, it can be concluded that most children with severe and multiple developmental disorders (early childhood autism with intellectual disability) have a high level of anxiety and are characterized by social and spatial fears. In younger students with intellectual disability, in General, the average level of anxiety and medical fears prevail.

Without timely and adequate correctional and developmental assistance, a significant part of children with RDA syndrome becomes uneducated and unsuitable for life in society. Conversely, with early remedial work, most autistic children can be prepared for learning, and often develop their potential giftedness in various fields of knowledge. It is also important to determine the level of interaction with the environment available for a child with autism, because this will help to correctly build the methodology and content of a complex correctional and developmental impact.

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## **POLISEMIA PROBLEM IN THE SPEECH OF YOUNGER SCHOOLCHILDREN WITH GENERAL SPEECH UNDERFORMATION**

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The issues of speech development in teaching children of primary school age are currently gaining special importance, since in practice its low level is increasingly encountered, accompanied by poor vocabulary and weak speech skills at the lexical level. Particularly acute lack of formation of all linguistic structures is expressed in children with general speech underdevelopment. In children of this group, the pronunciation and distinction of various sounds is more or less violated, the morpheme system is not fully mastered, and, consequently, inflection and word formation skills are poorly absorbed, the vocabulary is lagging behind the norm, both in quantitative and qualitative indicators ; coherent speech suffers [1].

Most children's speech scholars note in children with a general speech underdevelopment frequent repetitions of the same words in oral utterances, a poor idea of the direct meaning of words, difficulties in choosing synonyms. The most problematic children in this category, due to its heterogeneity in the degree of manifestation of a speech defect, are children with a 3 level of speech development, whose psychological and pedagogical characteristic is detailed phrasal speech with elements of underdevelopment of vocabulary, grammar and phonetics [2].

The practice of teachers shows that for the formation of full-fledged speech activity of children with a general underdevelopment of speech, level 3 of speech development, it is necessary to expand the volume of the dictionary, the accuracy of understanding and use of words and the structure of their meanings. The tasks will be solved by the correct perception and use of the phenomenon of polysemy in the oral and written speech of younger students.

A frequently encountered definition in polysemy dictionaries of the Russian language is polysemy, multivariance, that is, the presence of a word (language unit, term) of two or more meanings, historically determined or interrelated in meaning and origin. In modern linguistics distinguish grammatical and lexical polysemy. In our study, polysemy means, first of all, the polysemy of words as units of vocabulary. Lexical polysemy is the ability of one word to serve to designate different objects and phenomena of reality, associatively interconnected and forming a complex semantic unity.

In order for students to understand the ambiguous word, it is necessary to interpret it according to the model. In the minds of children, the meaning of the word is inextricably linked with the surrounding words and is associated with previously known words.

Based on the analysis of psychological and linguistic literature, when choosing and developing a methodology for studying the multi-valued vocabulary of elementary school students, the following should be considered:

1. Children do not always accurately perceive and understand the polysemant word, its meaning and find it difficult to recognize words in a figurative meaning.

2. Children of primary school age are most susceptible to learning a language.

3. The leading mental processes of assimilation of multi-valued vocabulary are: perception, memory, thinking.

The goal is to study the characteristics of mastering multi-valued vocabulary by children of primary school age with normal speech development and with impaired.

**Material and methods.** To study the level of proficiency in multivalued vocabulary by children of primary school age with normal speech development and with impaired, we chose the method of E. E. Deberdeeva.

The experiment was attended by primary school students of the SEI “Secondary School № 38 of Vitebsk” aged 7–9 years. The number of participants in the experiment is 20 people (10 of which have normal speech development, and the remaining 10 are general speech underdevelopment, level 3 of speech development).

The experiment was conducted in vivo on the material of 5 polysemantic words (among them are words of increased polysemy). The sources of didactic material were the current textbooks of the Russian language and literary reading, as well as lexicographic sources. In equal proportions, multi-valued nouns and verbs are selected.

The study was conducted by an associative technique (free associative psycholinguistic experiment with registration of the primary response).

To process the obtained data, a list of meanings of each polysemic word used was compiled (in accordance with the Explanatory Dictionary by S. I. Ozhegov and N. Yu. Shvedova).

**Findings and their discussion.** The data of the results of a free associative psycholinguistic experiment with registration of the primary responses of children with normal speech development and general speech underdevelopment (3rd level of speech development) indicates the fact that 50% of children with normal speech development according to the 6 proposed stimulus words named 190 direct meanings. At the same time, 50% of children with general speech underdevelopment offered only 124 associations, which is 65% of the indicators of the first group of children. The level of proficiency in multi-valued vocabulary by the direct meaning of the words “life” and “sitting” by children of both groups coincides by more than 80%, according to the word “see” there is minimal coincidence when comparing groups - 50%. In general, despite the fact that children with normal speech development showed better results than their



peers with impaired speech development, there is no significant difference. But ignoring it is not possible.

It should be noted that children with general speech underdevelopment (3 level of speech development) in most cases did not cope with the task of updating the word-answers of the figurative meaning to the word stimuli. They proposed 6 associations of figurative meaning only to the word-stimulus “bread”. While children with normal speech development suggested 40 options for all stimulus words, including 12 for the word “bread”.

It should be noted that the total number of figurative meanings of stimulus words decreased both in the first group of children - by 90%, and in the second group - by 95%.

**Conclusion.** Thus, the assumption is confirmed that the vocabulary and general lexical skills of children with general speech underdevelopment (3 level of speech development) are at a low level.

Differentiated indicators of multivalued vocabulary proficiency in children with general speech underdevelopment (3 level of speech development) and children with normal speech development indicate that children of the second group lag behind in the selection of direct word meanings by a third (35%) from children with normal speech development, according to the figurative value - by 80%. It was noted that children with impaired speech development use only everyday everyday speech, which sharply limits their vocabulary and the possibility of realizing the full potential of multi-valued vocabulary. In such children, the word has one specific meaning, most often a direct one.

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## **FEATURES OF PROFESSIONAL SELF-DETERMINATION OF SENIOR PUPILS IN THE PROCESS OF VOCAL AND CHORAL ACTIVITIES**

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The problem of training competent professionals in the field of musical art is currently quite relevant and closely linked with the process of formation of attitude to the future profession. The search for effective ways for professional self-determination of future teachers are considered in the works of E. B. Abdullin, A. V. Kartasheva, V. L. Yakanuka, E. S. Polyakova, etc.

There are many definitions of the concept "professional identity". In this article it is advisable to rely on the definition of V. A. Kartashev, including the development of self, the formation of the system of value orientations, modeling perspectives, the construction standards in the form of an ideal image of a teacher-professional [2].

EE "Vitebsk state University named after P. M. Masherov" training of teachers-musicians is carried out at the faculty of education (specialization "Musical art, rhythmic and choreography") at day time and correspondence forms of education. All students of the correspondence form of education are basic vocational education (College of music or College of art). In full-time education can qualify graduates not only for College of music College of the arts, but also in secondary schools (gymnasiums).

Each institution of secondary education functioning in the choir, participated in the work which largely affects professional self-determination of pupils, future students of the faculty of VSU named after P. M. Masherov.

The purpose of this article is analysis of the academic choir in the context of professional self-determination of senior pupils.

**Material and methods.** The methodological basis of the study was the theory of musical training and education (E. A. Abdullin, Dmitry Kabalevsky, T. P. Korolev); provision of music psychology on the development of abilities (V. I. Petrushin, B. M. Teplov). The research is the training choir of students of the specialty "Musical art, rhythmic and choreography" (full-time education) VSU named after P. M. Masherov. Used methods of analysis, questionnaire survey and mathematical data processing.

**Findings and their discussion.** Preparing the teacher-musician, including the conductor is part of the secondary special and higher educational institutions for 4 years. Of course, especially important is the initial stage of training, which provides the fundamental basis for professional development. Vocal and choral activities in secondary school (gymnasium) can be seen as a kind of vocational work. Because participation in choir forms a certain system of value orientations, motivates the students for future professional identity. This aspect of pedagogical activity of the head of the choir will directly affect the choice of future profession of a graduate school.

Enrolling in the faculty of education, the last student begins to identify prospects for personal development and contact with fellow students and teachers to prepare for their own teaching activities in institutions of General secondary education.

Consider structural features academic choir of 1-4 courses of day form of education of specialty "Music art, rhythm and choreography". This team was created in the 2016/2017 school year. This type of group – mixed, type – 4-voice. All participants of the training of the choir includes vocal and choral experience (participation in choral groups, vocal ensembles, etc.). The singing experience is not less than 4 years (institutions of General secondary education

choir class is an elective class for the program in secondary special education choir class is a compulsory subject) [1] (Table. 1).

Table 1 – Training choir (specialization "Musical art, rhythmic and choreography").

Course	Education	
	Higher	General secondary
1	65%	35%
2	50%	50%
3	57%	43%
4	72%	28%
1-4	61%	39%

Basic education participants training choir almost equally represented in General secondary and secondary special education. However, the learning process is built in such a way that the differentiation of learning programmes, given the educational base is missing. Thus, the task of the choirmaster is to the performance level of the choir met the requirements at the high school. This is achieved by focusing on the level of preparation of students with secondary special education. In addition, the important role personal qualities of the head of the choir, his professional skills.

Choral activities can be represented in the following stages:

- vocational guidance in the choral group of high school students (middle school, high school)
- professional identity of future leaders of choirs as competent specialists in the interaction with the students – graduates of musical colleges
- the distribution of graduates of the specialty "Musical art, rhythmic and choreography" in educational institutions as teachers and musicians.

**Conclusion.** Based on the foregoing, we can conclude that in the process professional identity of students plays a big role the system of value orientations. Of particular importance aspect of it is the personal and professional relationship between the participants of vocal and choral ensemble and its leader. The analysis of this position in the context career guidance will provide the basis for development of technology for improvement of vocal and choral works.

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## FORMATION OF FUNCTIONAL LITERACY IN STUDENTS OF AUXILIARY SCHOOL

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Mastery of competencies is defined as one of the means to achieve the real independence of the child by reducing his dependence on adult assistance. Numerous authors have found that students with intellectual disabilities can master certain competencies with adequate corrective and pedagogical assistance (I.M. Bobla, A.M. Zmushko, T.L. Leshchinskaya, T.A. Protsko, V.A. Shinkarenko and other). By functional literacy of people with intellectual disabilities we understand the system of skills to solve practical problems in the main areas of life, consciously operating with textual, numerical and graphic information. In the structure of education, functional literacy is the basis of the life competence of people with intellectual disabilities.

Structural components (indicators) of functional literacy of persons with mild intellectual disability: information and communication literacy, financial and economic literacy, literacy in solving everyday problems, public and legal literacy. These structural components are determined taking into account the requirements of the educational standard "Special Education", are correlated with the composition and level of study of educational subjects.

The formation of the basics of life safety is an important component of a person's functional literacy. Children with intellectual disabilities acquire experience by entering the social environment and cognition of the objective world, which necessitates the formation of their skills to interact with others and carry out practical activities [1]. This ensures the realization of the potential capabilities of students and allows them to show independence in all spheres of life [2].

The purpose of the study is to study the features of the formation of the basics of life safety in the yard and on the street in older students with intellectual disabilities.

**Material and methods.** An experimental study was conducted from January 2019 to February 2019 in the State Educational Institution "Auxiliary School № 26 of Vitebsk". The total number of people involved in the study was 20 people with a diagnosis of F70 for ICD-10. The study involved students of three classes of the first department: 6 "A", 7 and 8 classes. The age range of the subjects is from 12 to 15 years, of which 8 are girls and 12 are boys. The diagnostic tasks proposed by the subjects in the section "Environment and Security" included the following topics: - safe behavior in the yard, - places of special danger.

**Findings and their discussion.** A study of the level of formation of the knowledge of senior pupils of the auxiliary school about safe behavior in the yard showed that most students know the basic rules of this type of activity. So, 100% of the subjects correctly identified a safe place to play ball, but not all

respondents could reasonably explain the reason for their choice. Only 60% of high school students with intellectual disabilities correctly spoke about the possible dangers of choosing the wrong place to play the ball. The remaining 40% of the subjects found it difficult to formulate or gave inaccurate, and even incorrect, answers. For example, test subject Vlad G. simply stated: "You can only play on the playground," Nikita D. suggested the following answer: "You can get into the car window."

When answering the question of whether it is possible to play hide and seek on the street, the following results were obtained. 15% of children said that the safest place to play hide and seek is the house. 45% of students with intellectual disabilities answered - in the courtyard, where there are no cars, 15% of the subjects prefer to play hide and seek in the playground, 25% of the students play outdoors and wherever they want. It was more difficult for high school students to explain possible dangerous situations when playing with a ball in the yard. Since the children have quite well mastered the contrasting options for places of playing with the ball, the assumption that playing with the ball on the court can be dangerous has caused confusion in some cases. So, 45% of students with intellectual disabilities firmly stated that playing the ball cannot be dangerous in the playground. 55% of the subjects said that playing the ball could be dangerous and gave examples. For example, Jura P. explained his answer: "If you do not catch the ball correctly, you can break your arm," Yegor L. described the following situation: "Glass will be broken with a ball that will fall on the child and cripple him." Thus, students are more aware of the danger "from outside" than the danger posed by their actions.

When studying the knowledge of older students with intellectual insufficiency of safe places for games, the following results were obtained: 50% of students believe that basketball and playgrounds are safe places for games; 30% of the subjects considered safe places - a gazebo, a basketball and a playground, which are true answers, but the main argument for the correctness of their answer put forward the opportunity to "sit there"; 5% of respondents believe that you can "hang out" everywhere, and as the right places for the game choose all the proposed options, including a haystack on the field; 5% of respondents considered only a playground as a safe place for games; 10% of students with intellectual disabilities have chosen a gazebo and a playground as a place to play, explaining that there is no place to sit in the drawings, "otherwise the ants bite."

An analysis of the answers received by senior pupils with intellectual disabilities in the section "Places of Special Danger" allowed us to draw the following conclusions. The subjects were named as test subjects as a safe object that can be used for safe lighting of the attic, basement, and garage: - flashlight - 45% of the answers; 25% of the students suggested using a flashlight from the phone, 10% of the subjects chose to take candles, 10% of students with intellectual disabilities called "matches" as a safe lighting option, and 10% of



high school students suggested taking a lamp. As you can see, 20% of high school students do not consider matches and candles as a potentially dangerous subject, which can cause them to violate the basics of life safety.

The subjects had a well-formed knowledge of the rules of conduct in case of emergency in the elevator. So, 50% of the students said they would not panic and press a special button that is in the elevator, they will tell the dispatcher that they are stuck, they will call the house and the entrance. 15% of students with intellectual disabilities said they would press any button in the elevator and wait. 10% of students with intellectual disabilities will hit the door and shout "Fire!", 10% of the subjects suggested that they call their mother and 15% of senior students with intellectual disabilities would call 101 in the Ministry of Emergencies.

An understanding of the potential dangers of places such as the construction site turned out to be formed among high school students with intellectual disabilities as follows. 70% of the subjects will not choose a construction site for communication with friends, because it is dangerous there. So, Danya V. explained his answer as follows: "a brick on a head can fall." However, 20% of the students said that they would have fun with friends at the construction site, where they could climb and jump, which indicates that they have insufficiently formed safety fundamentals, which can lead to potentially dangerous behavior.

**Conclusion** An experimental study showed the presence of insufficiently accurately formed and differentiated knowledge of the basics of life safety on all the topics studied: safe behavior in the yard and places of special danger. This situation demonstrates the need for additional specially organized pedagogical work on the formation of the basics of life safety in older students with intellectual disabilities, as well as the skills to use the acquired knowledge in reality.

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## **DEVELOPMENT OF COMMUNICATIVE FUNCTION OF SPEECH IN CHILDREN WITH PECULIARITIES OF PSYCHOPHYSICAL DEVELOPMENT**

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Speech communication is a type of verbal communication where information is transmitted through words. The system providing speech communication is the human language [1].

Among the variety of problems of modern psychology, pedagogy and speech therapy, the problem of communication is one of the most significant and interesting. Children with intellectual disabilities are more likely than their normally developing peers to have difficulty communicating. This is due to a number of reasons, and above all the low level of speech development in this category of children. Many researchers (L. V. Zankov, G. M. Dul'nev, M. S. Pevzner, L. I. Schiff, T. A. Vlasova et al.) noted that the formation of speech in a child with intellectual disability is sharply behind the norm and is characterized by agrammatism, tongue-tied, limited vocabulary, short phrase.

The researchers note that children with intellectual disabilities are found a variety of disorders of speech development. Thus, almost all children of this category have more or less pronounced pronunciation deficiencies. Students with intellectual disabilities are not able to engage in speech contact with other people. This is due to their passivity, indulgence of motives for statements, weak interest in the environment, as well as extreme poverty of vocabulary and unformed grammatical structure of speech [2].

The speech practice of children with intellectual disability is extremely poor and of poor quality, but the imperfection of skills associated with the use of speech as a means of communication comes to the fore. The level of speech development of pupils of auxiliary school not only does not provide successful mastering of a program material of any of subjects, but even does not allow them to adapt in school collective, actively to be included in available forms of interaction in society [3].

The aim is to study and compare the features of speech communication in younger students with intellectual disability and speech disorders.

**Material and methods.** The basis for the experimental study were: SEI "Auxiliary school № 26 of Vitebsk" and SEI "Secondary school № 38 of Vitebsk". At various stages of the experimental test, only 30 primary school students participated: 10-primary school students with intellectual disability; 10-primary school students with severe speech disorders; 10-normally developing primary school students. The experimental study was conducted in March-April 2019. For the study, the technique proposed by E. S. was used. Unkovskoy: students were divided into pairs, which was given the following task: demonstrated subject picture with the image of the animal, then offered to collect the same pair picture (one for two), cut into several parts. Statements of children with which they accompanied the joint activity were recorded.

**Findings and their discussion.** The analysis of the results of the experimental study was carried out according to the following criteria: - organizational communication skills; - perceptual skills; - operational skills (aimed at transmitting a message).

Organizational communication skills in younger students with intellectual disabilities are formed at a low level. There are violations in the possession of the rules of correction of communication, the beginning and end of contact:

addressing the interlocutor, students rarely use polite words, forget to apologize, interfering in the conversation. 30% of children still used in their speech polite words, greeting and farewell in the direction of the experimenter.

A slightly different situation is observed in younger students with severe speech disorders. This group of children shows elements of cooperation (40% of students), which is not typical for the group of younger students with intellectual disabilities. Normally developing younger students showed a fairly high result. 85% of children in this category were active in communication, which is not typical for children with intellectual disability and for children with severe speech disorders. They are able to build communication taking into account a situation, easily come into contact with peers and the teacher, are able to use forms of speech etiquette, use polite words in speech, are able to interact with each other, cooperate, call each other by name.

Assessing the perceptual skills of younger students with intellectual disability, it was found that starting the activity children do not care about the partner, tend to perform the task separately, independently, forgetting or deliberately ignoring the installation on the joint solution of the task. There is a desire to capture all the stimulus material. This is observed in 50% of students.

Among primary school students with severe speech disorders, 50% of students understood the task, were interested in it and completed it correctly and quickly. The remaining 50% of children watched as his friend collects the picture, engaged in extraneous Affairs or from time to time helped his partner. The highest level of possession of perceptual skills showed normally developing younger students. 75% of children had such significant qualitative indicators, which are primarily associated with the ability to correctly, fully and accurately Express their thoughts, logically and coherently build a statement and make it understandable and accessible to the interlocutor.

When assessing the level of knowledge of operational skills of younger students, it was important to consider such aspects as grammar, vocabulary and sound pronunciation. At 90% of pupils with intellectual insufficiency in speech there are agrammatism, incorrect construction of sentences, incompleteness of the statement. In 70% of students with intellectual disability, there was a violation of sound (slurred blurred speech, suffers pronunciation of hissing and whistling, "R", there was hoarseness of the voice). The meaning of the words used by students are inaccurate, indistinctly delimited from each other, vague. As a result, children arbitrarily transfer the name of one object to others.

The greatest difficulties in younger students with severe speech disorders are associated with deficiencies in sound, vocabulary and grammatical system. Among the subjects, 100 % of students have a violation of sound and 20% of children have a violation of the lexical side of speech (can not find the right word, do not know the meaning of many words. 45% of normally developing primary school children have agrammatism in their speech, the formation of new words with the help of unusual morphemes. In 85% of children there is a

correct construction of sentences, the absence of unreasonable, long pauses in speech. 10% of students have a violation of the sound of plucking and whistling, "p". As well as for the group of younger students with intellectual disability and younger students with severe speech disorders, and for normally developing children is characterized by such a feature as the transfer of the name of one object to another.

**Conclusion.** The results of the study show that the level of possession of universal means of communication in younger students with severe speech disorders is slightly higher than in younger students with intellectual disability. In children with severe speech disorders, there are gross violations of the sound-pronouncing side of the word, indistinctness of expressing their thoughts, violations of the correct construction of the statement. These children are more active in the process of communication, are interested in maintaining a conversation, seek cooperation, more willing to listen to the comments of a neighbor. Therefore, for both groups of primary school students it is required to organically include the most effective forms of work on the development of speech communication (dialogues, plot and role-playing games, dramatization, use of everyday situations, etc.). Complex, step-by-step training in communication skills using modeling of speech situations, role-playing games and other techniques has a positive impact on the development of the communicative ability of children with persistent speech pathology and increases the effectiveness of correctional and pedagogical measures aimed at overcoming the general underdevelopment of speech.

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## **CHARACTERISTIC OF SPEECH ACTIVITY OF STUDENTS WITH SEVERE DISORDERS OF SPEECH IN LESSONS ON EXPLOSIVE ACTIVITY**

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The process of successful socialization of students is largely determined by the state of his speech. Special studies summarize the scientific data reflecting the etiology and nature of severe speech disorders in primary school children, describe the clinical aspects of its manifestations, and highlight the levels of

speech development. Students with severe speech impairment, along with the lack of formality of all language means, have features in the development of higher mental and motor functions, emotional and volitional spheres, indicating a systemic nature of speech disorders. Deviations in the formation of higher mental functions inhibit the process of correction of speech development deficiencies, reduce its effectiveness [1].

In the process of artistic creation, the child develops fine motor skills of the hands, observation, visual memory, eye, creative imagination. Getting the skill of the correct image, students learn to perceive the surrounding reality artistically.

The relevance of this work is due to the need to find new means of increasing the speech activity of students with severe speech impairment.

The aim is to determine the characteristics of the speech activity of students with severe speech impairment in the lessons of visual activity.

**Material and methods.** The study of speech activity in students with severe speech impairment in the lessons of visual activity was carried out using observation. The method of observation is direct perception, cognition of the pedagogical process in vivo. The advantage of observation is the ability to register observation parameters at the time of their occurrence. Observation met the requirements of regularity and focus. The observation was selective (individual students in special and general education classes were observed). The observation process was carried out at a visual arts lesson.

The analysis of the curriculum on visual activity and scientific literature [2] made it possible to single out the following observation parameters:

- initiative statements having the character of messages, motives, questions;
- verbal answers;
- the volume of all statements.

**Findings and their discussion** The study of the manifestation of speech activity of students in the lessons of visual activity was carried out using the following criteria:

- the frequency of use of initiative statements: appeal - inducement, appeal - message, appeal - question;
- the volume of verbal responses of students during the lesson;
- the number of all statements made by students during the lesson.

Based on the analysis of all observation parameters, the levels of speech activity are determined: high, medium and low. Speech activity is understood as the characteristic of speech activity, which is manifested in the initiative statements of the subject of speech communication.

An analysis of the results shows that students with severe speech impairments were much less likely to use proactive language (38%) than their peers with normal speech development (52%).

Students with severe speech impairments used predominantly communication – communication (46.7%), less – conversion – inducing



(33.3%), least often – addressing – question (20%). Students with normal speech development used mainly

appeal – induction (46.7%), less – appeal – a question (33.3%), less often – appeal – communication (20%).

The use of verbal answers at the request of the teacher in the subjects of both groups is also different. Students with severe speech impairments used verbal answers more often in a lesson in visual activity than students with normal speech development.

Verbal answers in the lesson on visual activity were given by 62% of students with severe speech impairments. Mostly students used answers such as: answers at the request of the teacher (“I don’t know how to do this,” “probably so wrong”), repetition of the heard material, commenting on their activities (“I can’t do it”).

Verbal answers in the lesson on visual activity were given by 56% of students with normal speech development. Mostly students used answers such as: answers at the request of the teacher (correct answers), commenting on their activities (“I can do it”).

Visual activity develops fine motor skills of the hands, which affects the development of memory, attention and logical thinking. Students call reproducible objects, explain the actions of the characters depicted, describe their actions. All this allows the child to understand and highlight the properties of objects, plan their actions. Words acquire the meaning of a regulator guiding the image process, controlling image techniques and methods. Pupils with severe speech impairments have peculiarities in the development of both speech and non-speech processes, which determines the success of mastering the program material.

**Conclusion.** Thus, we can conclude that the features of the speech activity of students with severe speech impairments in the lessons of visual activity are: a sufficient level of use of initiative statements (appeal - message, appeal – induction, appeal - question), the predominance of verbal answers, repetition of what is heard material, low sentence throughout the lesson.

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## THEORETICAL AND APPLIED ASPECTS OF PHYSICAL CULTURE, SPORT AND TOURISM

### PHYSICAL DEVELOPMENT OF ADOLESCENTS-A CRITERION OF HEALTH OF THE GROWING ORGANISM

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This topic is relevant because, today, in the Republic of Belarus, there is a marked deterioration in the health of children and adolescents of all age groups. Chronic diseases are currently diagnosed in an average of 40–45% of school-children, and among those considered healthy, about 70% are children with various morphofunctional disorders. The number of fully healthy school teams on average does not exceed 15% and decreases to 7% in high school [1]. And, in these conditions, in the state of health, it is the assessment of physical development during preventive medical examinations that makes it possible to assess the health of students.

The purpose of the work is to study and analyze the methods of assessing the physical development of students.

**Material and methods.** The basis of the study was the State educational institution (GUO) "Nikolaev secondary school of Vitebsk region". The study involved 20 children aged 7 to 9 years, students belonging to the main medical group, not involved in sports.

Determination of the level of physical development was carried out by measuring anthropometric indicators: height and body weight. The study used such General scientific methods and techniques of research as methods of analysis, synthesis, grouping methods, observation, description, comparison, measurement.

**Findings and their discussion.** As can be judged by the values of the Quetelet index presented in the table. the subjects have a normal IQ of 54%, overweight – 42% and 4% -have a deficit of body weight.

Table 1 – Anthropometric indices of students and the Quetelet index

List of subjects (the names of)	Weight (kg)	Height (m)	Value of the Quetelet index
1. Anya	32,5	1,32	187
2. Alyosha	33,0	1,26	208
3. Valya	39,5	1,35	217
4. Victor	34,5	1,26	217
5. Dima	30,0	1,28	183
6. Egor	32,0	1,35	176
7. Zina	27,0	1,26	170

8. Irina	22,0	1,25	140
9. Karina	26,5	1,30	157
10. Kostya	37,5	1,38	197
11. Lena	33,0	1,80	192
12. Maxim	37,0	1,38	194
13. Olya	36,0	1,36	195
14. Prokhor	26,0	1,32	150

The General assessment of physical development of pupils following: physical development average, insufficiently harmonious.

It was found that children of the studied class have an increased body weight, which can be explained by inactivity (do not exercise, do not play sports, lead a sedentary lifestyle). Pathology of the musculoskeletal system is also associated with inactivity, with prolonged sitting, with the lack of sufficient physical activity [2].

According to the results of the study, it can be concluded that the assessment of physical development of children and adolescents should be comprehensive, taking into account the individual characteristics of the child's body.

As can be judged by the values of the Quetelet index, presented in the table, the subjects have a normal IQ index – 54%, overweight – 42% and 4% – have a body weight deficit.

**Conclusion.** The obtained results allowed to confirm the hypothesis that the technique, taking into account the influence of various factors, has a significant informative value for the assessment of physical development.

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## **OPTIMIZATION OF DEVELOPMENT OF THE GENERAL AND SPECIAL ENDURANCE AT SKIERS-RACERS AT A STAGE OF SPORTS PERFECTION**

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Skiing is a cyclical kind of sport and therefore the main focus is on the development of endurance. This physical quality is considered to be the primary (along with strength) quality of skiers-racers. All other qualities – speed, flexibility, agility, balance, coordination – should be attributed to additional, but closely related to the main. Endurance is the factor determining the level of

sports performance of the skiers-racers. To achieve high results in skiing, you need many years of systematic training [1].

The purpose of this work is the optimization of the training process through the development of standards for assessing the level of development of general and special endurance, and the volume ratio of general and special endurance 1st class and sub-master athletes.

**Material and methods.** The study was conducted during a one-year cycle (from May 2012 to May 2013) at the Vitebsk institute of the Olympic training. 1<sup>st</sup> class athletes and sub-master athletes took part in the experiment. From them were completed 2 groups of 12 persons each. In both groups sports results of skiers were approximately the same in the previous season. Statistically there were no significant differences between the groups in terms of physical development, level of general and special endurance. Testing was carried out to identify the initial level of general and special endurance and its changes during the training process and the experiment [3, 5].

**Findings and their discussion.** To assess overall endurance, the following tests were performed: running 1500m, cross 5km, hands moving imitations in alternating two-step course (number of cycles per 1 min). To assess the special endurance: 10km roller skis race with classic, 100m downhill jumping imitation, 10km skiing race with classic. To assess the special endurance: passing of the 10km roller skis race with classic for the period of time, downhill jumping imitation with poles at a slope of 7 degrees, passing the 10-kilometer race with classic course for the period of time.

Starting from the summer-autumn period, each group performed control tests at the same time with control training and competitions, which were held in the previous year cycle. In the following season the exercises with the same tests for general and special endurance were carried out again.

During the experiment, the experimental group performed special endurance training according to our annual and current planning, and the main group - according to the methodical recommendations of the ski racing Federation [4].

The analysis of the skiers-racers' tests scores for the development of the general endurance showed that after the experiment the difference of indicators in running at 1500 m, 5 km cross-country and hands moving imitations in alternating two-step course between the main and experimental group is not statistically reliable at ( $P > 0.05$ ). According to the indicators of special endurance – 10 km ski race, 10 km roller ski race and 100m downhill jumping imitation, were found statistically credible differences at  $P < 0.05$ . Between the main and experimental groups, it was indicators of experimental group were higher [2].

Table 1 – The Results of Testing before the experiment

The name of the test	Main group			Experimental group			P
	before			before			
	X	$\sigma$	x	X	$\sigma$	x	
<b>General endurance</b>							
Running 1500 m	4,39	0,12	0,03	4,42	0,15	0,04	<0,05
Cross 5 km	18,16	0,55	0,15	18,13	0,47	0,13	<0,05
hands moving imitation (number of cycles)	62,3	5,0	1,44	63,5	6,2	1,79	<0,05
<b>Special endurance</b>							
Skiing 10 km	39,32	1,57	0,45	40,15	2,45	0,70	<0,05
Rollerskis 10 km	33,42	1,54	0,44	32,54	1,35	0,39	<0,05
Jumping imitation 100 m	33,2	1,9	0,54	35,4	2,3	0,66	<0,05

Table 2 – The Results of Testing after the experiment

The name of the test	Main group			Experimental group			P
	after			after			
	X	$\sigma$	x	X	$\sigma$	x	
<b>General endurance</b>							
Running 1500 m	4,32	0,7	0,20	4,22	0,6	0,17	>0,05
Cross 5 km	17,51	0,44	0,12	17,42	0,39	0,11	>0,05
hands moving imitation (number of cycles)	66	7,0	2,02	71	8,2	2,36	>0,05
<b>Special endurance</b>							
Skiing 10 km	38,20	1,43	0,41	36,30	1,37	0,39	<0,05
Rollerskis 10 km	32,10	1,45	0,41	30,15	1,32	0,38	<0,05
Jumping imitation 100 m	31,4	1,5	0,43	29,5	1,2	0,34	<0,05

**Conclusion.** The analysis of scientific and methodical literature showed that nowadays the problem of endurance development is actual, scientific researches are conducted on physiology, theory and methodology. The development of endurance depends on many factors. Therefore, in our opinion, the actual problem is an objective assessment of the level of athletes' endurance development and the choice of the optimal ratio of the development of general and special endurance in the annual training cycle. On the basis of testing of skiers-racers of the Republic of Belarus developed standards for the assessment of general and special endurance. The planning of the training process is made, where special attention is paid to the ratio of the volume of general and special endurance for 1 class skiers-racers and sub-master skiers-racers in the annual cycle. The efficiency of the developed planning volume ratio of general and special 1<sup>st</sup> class and sub-master athletes' endurance, were tested in the pedagogical experiment, where control standards were used to determine the level of development of general and special endurance in the main and experimental groups before and after the experiment. The results of the pedagogical experiment showed that the conduct of the training process in the experimental group with the help of developed microcycles allowed to statistically significant increase the indicators of special endurance (ski race 10



km, roller ski race 10 km and downhill jumping imitation 100 m) unlike the main group at  $P < 0.05$ .

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## **OUTDOOR GAMES AS A MEANS OF TRAINING THE COMMUNICATIVE COMPETENCE OF STUDENTS**

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Technological progress, Informatization of the surrounding space on the one hand, make life easier, on the other hand can deprive children of the conditions for the formation of communicative competencies.

The purpose of the study: to analyze the role of games in the life of a child, to assess the level of communicative competence and the quality of formation of basic communicative skills.

**Material and methods.** The following methods were used: analysis of literary sources, observation, conversation, questionnaire, survey, analysis.

The survey was attended by 22 children aged 11-12 years (12 girls and 10 boys) enrolled in the 5th grade VEE "School number 19, Orsha".

The questionnaire [1] included the following questions:

1. What place do outdoor games occupy in your life?
2. How much time do you give to computer games?
3. What outdoor games do you play?
4. What kind of computer games do you play?
5. Where do you play outdoor games more often, in the city or during weekends and holidays in the country?
6. Where do you play computer games more often, in the city or during weekends and holidays in the country?

Students were offered a test to assess the communicative qualities of personality [2]. Testing was conducted in conjunction with the school psychologist.

**Findings and discussion.** In the result of conducted survey found that the younger students little time to devote to mobile games and spend much time for computer games; outdoor games to play during the holidays, while in summer camps; in the city prefer computer games; from mobile games prefer games with simple rules, a small number of participants: from computer games prefer games with a superhero.

Thus, in children there are no conditions for the formation of accounting competencies.

The test results are presented in table 1.

It was revealed that 10 (45.5%) children have a low level of sociability and communication skills, 7 children (22.7%) have a normal level of communication skills, a high level of communication skills was observed in 5 children (9.2%), 6 children, an excessive level of communication skills was revealed (6.1%).

Table 1 – The results of the TES assessment of communicative qualities of personality in children of secondary school age (n=22)

Low level of communication		Normal level of communication				High level of communication		Excessive level of communication			
30-31 points	25-29 points	19-24 points	14-18 points	9-13 points	4-8 points						
ab.	%	ab.	%	ab.	%	ab.	%	ab.	%		
6	27,3	4	18,2	2	9,1	5	22,7	2	9,1	3	13,6

We found it interesting to develop a project to promote yard and Belarusian folk games for children of secondary school age in Vitebsk and Vitebsk region.

The project of revival of culture of yard games, includes the following stages:

- creation of a card file of domestic and national Belarusian games;
- formation of a group of volunteers, from among the students of the faculty of physical culture and sports of VSU named after P. M. Masherov, in the amount of 20 people to teach them the rules of games contained in the game library;
- presentations of games and master classes in schools of Vitebsk and Vitebsk region;
- popularization of yard games in the media and social networks.

**Conclusion.** Children of secondary school age spend little time playing outdoor games and are not familiar with them.

45.5% of schoolchildren have a low level of communication, which is alarming and requires corrective action.

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## PHYSICAL DEVELOPMENT OF STUDENTS

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The physical development and health of the younger generation is of serious concern, as the cultural understanding of the indispensability of physical activity and its obligation among schoolchildren and students is at a low level. Even worse is the case with the active component, as many young people, give physical culture a secondary place.

Currently, the most important is the development of motivational and stimulating activities aimed at understanding the importance of physical culture and sports for the individual, society and the state as a whole [1].

The purpose of the study is to study the circumstances that have a great influence in the process of personality formation during physical education.

**Material and methods.** The study involved young athletes-sprinters of 20 people in each age group. Preliminary studies were conducted during training sessions in halls, stadiums, athletics arenas.

**Findings and their discussion.** It is known that gaming equipment simultaneously develops all physical qualities, so the technique of constructing training sessions using mobile and sports games with a focus on the development of speed and speed-strength qualities was used.

We present training tools aimed at the development of speed and speed-strength qualities. At this stage of training in 14-16-year-old boys there is a need for specialized running work, so the main part of the training session consists of specialized running AIDS, game exercises and sports games.

In particular, widely used: acceleration, running from the start, running from the course, variable running 5x100 m, game: change places, game: counter relay, coordination exercises, flexibility. The emphasis when performing each exercise is on the number of repetitions, execution time, duration of rest intervals, taking into account the nature of rest (active or passive). Conducted monitoring of heart rate and the number of respiratory movements with relaxing exercises [2].

The process of training by means of physical culture has a great impact not only on strengthening the physical well-being of a person, but also on all sorts of aspects of his life: spending free time, the development of a healthy personality. Physical education should help students to form the necessary features both physical and mental. In this regard, teachers and teachers of secondary schools have a task to use modern innovative technologies in physical culture and sports to create a healthy personality.

In the practice of youth sports, there are examples when the highest personal achievements in sprinting fall on the youth and even adolescence, and Junior and adult athletes progress is not observed. According to experts who

have studied this problem, one of the main reasons for this is the forcing of the training process of young athletes by narrowing the means and methods of training, excessive enthusiasm for specifically directed exercises and competitive loads.

In terms of research on the topic of the master's thesis, a one-year pedagogical experiment is provided, in which two groups of students of secondary schools of 5-11 classes will take part, in order to substantiate the developed methodology.

An additional form of physical education of schoolchildren is extracurricular physical education and sports work, which is based on an Amateur voluntary basis and includes classes on interests in sports sections and health groups, participation in sports events, competitive activities.

The main form of organization of additional physical education of schoolchildren is currently school sports clubs. The third form of physical education is extracurricular. It includes preparation of sports reserve in specialized schools and sports centers, and also sports and improving occupations of schoolboys in a residence, in sports clubs, family active rest, etc.

Additional physical education of schoolchildren allows:

- involve students in systematic physical exercise and sports during leisure hours;

- increase physical activity of students;

- to master the basic educational competencies in the field of physical culture, healthy lifestyle;

- acquire vital skills in the field of safety training, insurance and self-insurance during exercise; self-control over the physical condition, first aid to the victim in the classroom exercise;

- to form stable value orientations to physical culture, healthy lifestyle in schoolchildren;

- meet the needs of students in physical activity in accordance with their interests;

- achieve high sports results.

**Conclusion.** The formation of the need for organized physical exercise and sports is especially important in the younger and middle school age, so that by the senior school age, the student has a stable need for physical activity and in the future is maintained at the proper level.

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## MOBILE GAME-A FACTOR IN THE FORMATION OF MOTOR SKILLS IN PRESCHOOL CHILDREN

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An important component of the child's level of development is physical fitness. This is the leading characteristic for assessing the initial level of development of the child, in order to determine for him the "nearest" zone of health, the formation of systems, body functions and motor skills.

The purpose of this work: to study the motor qualities in children of middle preschool age.

**Material and methods.** 20 children aged 4-5 years (12 girls and 8 boys), pupils of GUO DS No. 23 of Vitebsk were examined. Diagnosis was carried out at the beginning of the year. When conducting diagnostics at this age, it is necessary to focus on the indicators of speed, endurance, flexibility. The basis was taken test exercises E. ya. Stepanenkova. To determine the level of formation of speed used running at 30m (quantitative indicator-running time in minutes; a qualitative indicator for middle age: a slight inclination of the trunk, the head is straight, the arms are half-bent, vigorously withdrawn back, rapid removal of the hip of the flight leg)[1].

The level of flexibility was determined by the amount of inclination on the gymnastic bench to the flag.

The level of endurance formation was determined by the time spent running at a distance of 90M.

The obtained data were compared with the age norm.

**Findings and their discussion.** Table 1 presents data on the level of formation of motor qualities in the surveyed children of middle preschool age.

Table 1 – The level of formation of motor qualities in children of middle preschool age (n=20)

An indicator	Level values				
	Low	Below average	Medium	Above average	High
Quickness	7 (35%)	4 (20%)	5 (25%)	3(15%)	1 (5%)
Endurance	6 (30%)	6 (30%)	4 (20%)	2 (10%)	2 (10%)
Flexibility	4 (20%)	5 (25%)	5 (25%)	4 (20%)	2 (10%)

Table 1 shows that 55% of children have low and below average speed; 60% of children have the same endurance; 45% of children have low flexibility. The level of above average and high in terms of speed and endurance demonstrate 20% of children and 30% in terms of flexibility.



Table 2 presents the differences in the formation of motor qualities in boys and girls.

Table 2 – Differences in the formation of motor qualities in boys and girls

Показатель	Level values									
	Low		Below average		Medium		Above average		High	
	b	g	b	g	b	g	b	g	b	g
Quickness	2	5	1	3	2	3	2	1	1	0
Endurance	5	1	5	1	1	3	2	0	2	0
Flexibility	1	3	3	2	2	3	3	1	2	0

As can be seen from table 2 in the average preschool age, boys show higher rates of speed, girls, however, better developed endurance and flexibility.

The obtained data allowed us to build a plan to increase motor activity in children of middle preschool age using yard and Belarusian folk games.

**Conclusion.** Motor qualities in children of middle preschool age are low and below average. Boys show higher rates of speed. Girls of middle preschool age have better developed endurance and flexibility.

The program of development of quality and volume of motor activity with use of yard and Belarusian national games is offered.

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## THE RESULTS OF THE FIRST OLYMPIAD IN THE SUBJECT “PHYSICAL CULTURE AND HEALTH”

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In the Republic of Belarus, the olympiad movement in educational subjects is constantly being improved and developed. Decree of the Ministry of Education of August 1, 2018 No. 83 added another subject for which the Olympiad is held - physical education and health. One of the important reasons for updating this innovation is the problem of possession of students and school graduates with the necessary knowledge of occupations and, as a result, maintaining healthy lifestyles.

The main goal of this Olympiad is to identify and support the most capable, gifted students, increase students' interest in the subject, and deepen theoretical and practical skills.

The purpose of the publication is to analyze the results and organizational difficulties of the first Olympiad in the subject "Physical Culture and Health".

**Material and methods.** The material of the analysis was the content and results of the stages of the Republican Olympiad on the subject "Physical Culture and Health" of students of educational institutions.

**Findings and their discussion.** There was a lot of debate about what the first Olympiad would look like. It was rather difficult for the developers of the Olympiad to prepare assignments that could fully appreciate the potential of students, so she was the first. Earlier, similar attempts to conduct the Olympiad were already in the Grodno and Minsk regions, but they were not particularly popular. This knowledge served as the basis for determining the program of the Olympiad. Initially, 5 rounds were supposed - 1 theoretical and 4 practical (swimming, sports, level of physical fitness and acrobatics). In the end, 4 rounds were determined - 1 theoretical and 3 practical. Acrobatics is not yet included in the compulsory program due to too subjective assessment, but its appearance should not be ruled out in the future.

The theoretical tour consists of open, closed, and compliance tests. Depending on the stage of the Olympiad, this tour included a different number of tasks. So, for example, in the second stage, the tour contained 35 closed questions and 15 open questions. At stage 3 there were already 30 closed questions, 15 open questions and 5 assignments for compliance. The questions were on various topics that are included in the section of the basic program of physical education knowledge, such as: Olympism and the Olympic movement, the Olympic Games of antiquity, Healthy lifestyle, Methods of independent studies, Physical qualities, Fundamentals of sports, Rules for safe behavior in sports and physical education. The organizing committee of each stage of the Olympiad determines the time allotted for the implementation of this tour (from 1 to 3 hours). For each correct answer, the participant was given 1 point. Summing up the results was carried out according to the rank of the greatest completion of the test tasks, with the equality of the scored points, the participants are awarded the same places.

Practical tour - swimming. At the second stage of the Olympiad, this round was not mandatory and the results were not included in the selection for the regional stage. The only condition for this tour was the ability to swim. Students need to overcome a 50 m freestyle in a minimum amount of time. The participant was allowed to alternate between different styles of swimming and independently choose how to start: from the nightstand, from the side or from the water. The result was recorded with an accuracy of 0.01 sec. The results were summed up according to the ranked place of the shown least time, with the equality of the places won, the participants are awarded the same rank.

Testing the level of physical fitness. Pupils performed familiar tests for all, which are described in the curriculum and are performed by students in the first and fourth quarters - shuttle 4x9 meters, long jump from a place, leaning

forward from the starting position sitting on the floor, raising and lowering the body in 1 minute for girls and pulling up in the hang on the bar for young men. In each test, the participant was awarded a rank (in shuttle race by the least time, in the other types - by the highest result), then the ranks of four species were summed up and the ranking place of the tour was determined by the least amount.

The most difficult to organize and conduct was a tour - sports games. Long debates about this tour did not allow unanimously to develop a methodology for the tour, so the developers of the tasks of the second stage decided at their discretion. So, in the Vitebsk region, tasks for the sports game of basketball were developed, which were exactly the same for all students. In the Grodno region, a complex exercise was used, consisting of the technical techniques of the four studied sports games (basketball, volleyball, handball, football). At the third (regional) stage of the Olympiad, the child was given the right to independently choose one game before the Olympiad. Each view included three tasks. The first is the assessment of the target accuracy of the exercises (free throws, penalties, passing the ball into a specific area). The result was recorded by the number of hits (the number of points scored). The second - included a combination of technical techniques (dribbling) with shuttle running. The result was recorded by the total time of the task, taking into account the penalty time. Third - the integrated implementation of techniques and their combination, performed on time. The results of each task were summed up according to the relative result (formula:  $100 \times \text{result} / \text{best result}$ ), then the relative results of three tasks were summarized and the rank of the participant was determined.

The results of the Olympiad were summed up by the lowest total sum of ranks. In the case of the same sum of ranks, the advantage for the student who has taken more than 1, 2, 3, etc. places on tours. According to paragraph 51 of Instruction No. 73, the winners of each stage of the Olympiad are awarded with diplomas of I, II and III degrees and prizes. The number of diplomas of each degree at each stage is determined on the basis of the following proportion: not more than 50% of the number of winners is awarded with diplomas of the III degree, not more than 30% - diplomas of the II degree, not more than 20% - diplomas of the I degree, but not more than 45% of the total number of participants. The winners of the regional stage were given a privilege upon graduation - 100 points for the entrance test, i.e. on physical education.

Summing up the results of the first republican Olympiad, the Grodno region has 7 diplomas, the Mogilev region has 6 diplomas, the Gomel region has 5 diplomas, and the city of Minsk, Minsk and Brest have 4 diplomas. The Vitebsk region does not have a single diploma, 4 students were awarded certificates of appreciation, which means that they did not have enough to receive diplomas. In order to understand what the reason is, one should analyze the results of the regional and regional stages.

In our opinion, the main errors in the behavior of the second stage were:

1. One game was defined for everyone - basketball. Thus, children involved in other game sports found themselves in unequal conditions with children involved in basketball. While at the regional stage, 33 students (66%) chose basketball, 10 people (20%), volleyball, 5 athletes (10%), and 2 people handball (4%). At the republican stage, the most popular was handball - 29 participants (40.8%), 22 people (31.0%) chose volleyball, 12 (16.9%) - basketball and 8 (11.3%) - football;

2. it was wrong not to take into account the results of swimming during the selection for the third stage, since in fact it turned out that some children only knew how to stay on the water and it was problematic for them to overcome 50 m. 10 girls covered the distance in more than 1 min., In while at the republican stage there were no such results at all;

3. in preparation for the Olympics, due attention was not paid to the theoretical tour. If we analyze the level of theoretical training of students, then this indicator is 42.3% at the district stage and 46.9% at the regional stage, while at the republican stage this indicator is 66.9%.

**Conclusion.** Earlier, the lesson of physical culture and health at school was perceived by many as a lesson in physical fitness, filled with active movements, the opportunity to play, and the formation of knowledge was usually associated with other educational subjects. With the introduction of the Olympiad in physical education, I want to believe that the attitude towards the subject has changed for the better. Pupils will be interested in the subject and even if not everyone will choose a specialty related to the sports field, but they will lead an active lifestyle and promote it wherever they are.

## **EVALUATION OF THE USE OF VISUAL MATERIALS ON “ADAPTIVE PHYSICAL CULTURE” IN CHILDREN WITH A MODERATE AND SEVERE MENTAL RETARDATION**

**Maryia Khrapovitskaya**

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The introduction of an inclusive approach has already become not a feature, but the need to improve the work in the field of education for people with disabilities. States are obliged to create conditions that ensure equality of education and the implementation of constitutional law by all categories of students on the quality of educational services and health protection. Ratification by Belarus of the Convention on the Rights of Persons with Disabilities in October 2016 gave a new impetus to the implementation of a set of measures aimed at improving the lives of people with disabilities, including in the field of education and health, updating and improving various educational areas [1].

All this actualizes the further improvement of the education of mentally retarded children, the preparation of students for practical labor activity at the present stage of special education remains the most important both practical and scientific task. The children's lack of appropriate physical education knowledge about the name of the exercises, equipment and inventory, ideas about the motor actions that must be performed on the instructions of the teacher makes it impossible to solve educational and other tasks in the lesson, the lack of a working environment and almost complete interaction in the lesson of the teacher with the students.

In solving the existing problem, improving the methodology for the formation of knowledge in students of the 2nd department of the auxiliary school through the use of special visual materials in the educational process is of particular practical interest. The practice of using special visual aids is widespread in the teaching of general subjects. The use of such materials increases the effectiveness of the formation of knowledge in children with mental retardation. In the practice of adaptive physical education, specially developed visual materials have not yet been widely disseminated.

The purpose of the study is to improve the theoretical preparedness of students with moderate and severe mental retardation according to «Adaptive Physical Culture».

**Material and methods.** The survey involved children of 2 departments studying at the State educational institution «Auxiliary school No. 26 of Vitebsk».

Based on the study of the theoretical foundations of the problem, we carried out a diagnostic examination of the formation of physical education in children with moderate and severe mental retardation of various classes of the auxiliary school before and after using specially designed didactic visual materials.

Physical education knowledge was studied using specially prepared visual material that was selected and adapted taking into account the characteristics of the cognitive activity of mentally retarded children.

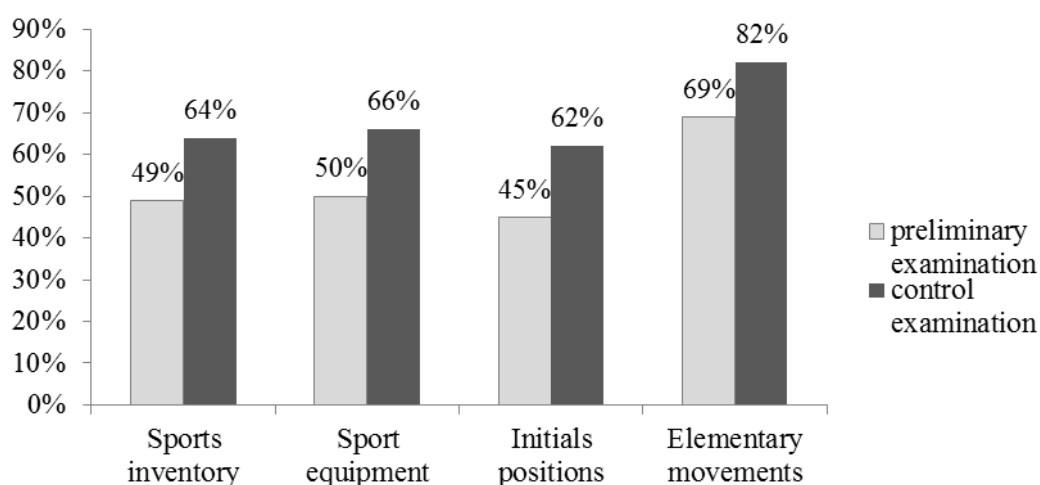
Visual material was a set of pictures reflecting the most famous inventory and equipment of the gym, the basic positions of the arms, legs, head, common in physical education.

**Findings and their discussion.** Based on the data on children's knowledge of the curriculum of the subject «Adaptive Physical Culture» and taking into account the peculiarities of their cognitive activity, visual material was developed. Also, when developing visual material, the requirements [2] for such material in an auxiliary school when used in other educational subjects were taken into account, and refracted to the specific content of the subject «Adaptive Physical Culture». As such requirements for the form and content of didactic visual material for the formation of knowledge in the subject of «Adaptive Physical Culture», we have identified the following:



- Visual didactic material should not contain distractions.
- Visual material should be bright and colorful to interest children.
- The proposed material should be clear, easy to read, and appropriate size.
- Material should be offered to students at the appropriate time in the class so as not to distract their attention while studying other material in the program.
- Its quantity should be small so that students are not distracted from the essence of the topic being studied.
- In order to interest students, it is necessary to involve them in the independent finding of a particular picture in visual didactic material.

In accordance with these requirements, visual materials were developed that were used by the teacher on adaptive physical education in students at the basic level of education (grades 6–9), who took part in the control examination.



Picture 1 – Indicators of the level of physical education knowledge among children in grades 6–9 of the second department of the auxiliary school before and after using the developed visual material

The data obtained during the study showed an increase in the efficiency of mastering knowledge on the curriculum on «Adaptive Physical Culture» using special visual aids.

**Conclusion.** Studies have shown that the use of special visual materials on «Adaptive Physical Culture» in the educational process of an auxiliary school helps to increase the efficiency of mastering the theoretical material of this educational subject.

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**NEW FORMS OF FILLING THE HOUR OF ADAPTIVE PHYSICAL RECREATION IN THE DEPARTMENT OF THE DAY STAY OF DISABLED PEOPLE OF THE DISABLED TERRITORIAL CENTER OF SOCIAL SERVICE OF POPULATION**

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People with moderate and severe intellectual disabilities, who are in the day care unit for people with disabilities at the Territorial Center for Social Services, are characterized by significantly reduced volumes of physical activity. Severe inactivity leads to poor health, reduced functional capabilities of the body and psychophysical disturbances in the development of the body.

The inclusion of adaptive physical recreation video programs on fitness systems for health, development and medical purposes will potentially consider these classes as an effective form of adaptive physical recreation hours: both for the prevention of physical inactivity and for improving the health and general psychomotor state of the body.

There are no examples of the use of fitness systems with visitors with moderate and severe intellectual disabilities in the modern correctional and pedagogical process of day care departments for disabled people. One of the reasons is the lack of relevant scientifically based recommendations on the organization and conduct of an hour of adaptive physical recreation with the contingent of people.

Purpose of work – improving the organization of adaptive physical recreation in the day care unit for the disabled of the Territorial Center for Social Services.

**Material and methods.** In the day care unit for the disabled of the territorial center of social services for the population, the development and testing of video programs accompanying classes of visitors with specific types of fitness systems was carried out.

**Findings and their discussion.** At the initial stage of development, a ready-made complex was tested for an initial level of training in rhythmic gymnastics taken from Internet sources [1].

During testing, it was noticed that this video program arouses interest among visitors of the day care unit for disabled people. However, in many movements, the developed programs are not permissible with the ability to execute due to the characteristics of this contingent. In this regard, literature and various Internet sources on rhythmic gymnastics and step aerobics were studied. Based on the materials studied, complexes of the simplest exercises (for beginners) are formed. These complexes were conducted directly with volunteers of the AFiS adaptive physical education and sports club, among students who were qualified instructors in these types of fitness.

The selection of exercises was carried out taking into account the peculiarities of visitors to the department of day care for disabled people. Since this contingent of people has impaired accuracy, a sense of rhythm, pace and coordination of movements, they are slow, constrained and limited in movement. During development, the complex included only those exercises that are most accessible and performed by the majority.

The next stage of development was the video recording of the developed complexes and their practical testing in the department of day care for people with disabilities. Video programs were tested in two versions: with and without an instructor.

To determine the effectiveness of the use of video programs in the department of day care for people with disabilities, we used timekeeping and determining the motor density of independent motor activity on an AFR hour. The timing method was used to determine the temporal characteristics, during the testing of the physical activity of visitors, the department for the daytime stay of disabled people. The Romberg test, which is a neurological test, the assessment of static coordination and coordination abilities, The palatine test, which is carried out during a neurological examination and allows you to evaluate the function of coordination of movements as well as neuropsychological tests, which included the Luriev battery of tests (reciprocal coordination, oral praxis, finger posture praxis, dynamic praxis, conditional selection reactions, reproduction of rhythmic structures). The indicators of the Luriev battery of tests are a kind of markers characterizing the level of development of various HFs that underlie all voluntary motor activity of a person.

The most positive effect had on the emotional sphere and physical activity, this is testing without an instructor in which visitors saw recorded video programs on the projector in their own performance.

The processing of the results showed that the average rate before the inclusion of adaptive physical recreation of video programs per hour for independent activity of visitors to the day care unit of the disabled of the territorial social services center was 49.2%, after 69%.

According to the results of the Romberg Sample, 83% of the subjects improved their static coordination indicators, while 17% remained at the same level.

After the Palzenosovy test, 75% of visitors to the day care unit for the disabled registered an improvement in dynamic coordination indicators, and 25% of visitors showed the same indicators.

According to the results of the analysis of the neuropsychological examination, all those involved in the study experiment at the beginning of classes showed a low level of test indicators, by the end of the experiment, 83% of the study participants had better results, 17% remained unchanged. Studies have shown the effectiveness of the implemented program, and its beneficial effect on the motor activity of this contingent.

**Conclusion.** Based on the conducted studies, classes with the help of video programs can significantly increase the independent motor activity of people

with intellectual disabilities and solve many problems of the correctional and recreational orientation, which was confirmed by the results of our studies.

The results of the study allow us to draw the following conclusions:

1. The program we developed, implemented in the daily mode of visitors of the day care unit for the disabled of the territorial center of social services, allows you to change the lack of motor activity of people with intellectual disabilities in the direction of increase, as well as have a positive corrective and healing effect on the body.

2. Classes with these video programs are positively reflected in the improvement of the basic indicators of the functional state of the Romberg test, finger test, neuropsychological tests.

A specially developed program for fitness systems, implemented on a day-of-day basis for people with disabilities at the territorial center of social services, has made it possible to change the lack of motor activity of people with intellectual disabilities in the direction of increase, and also had a positive corrective and healing effect on the body of those involved.

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## **MOTIVATION IN SPORT ORIENTEERING**

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Early sports specialization, characteristic of orienteering, contributes to the fact that by the age of 14-15, athletes, with a long experience of orienteering, achieve relative success in sports. And here often there is such a situation: young orienteers, who have not yet reached the peak of physical strength, lose interest in orienteering. And he leaves the sport without realizing all the opportunities available to him.

When working with children, developing measures to increase the motivation of orienteering, it is necessary to proceed from the fact that their sports activities are a logical continuation of school activities. At the initial stages of sports, and in the future, children perceive it as a game, conditioned and regulated by a strict system of rules and competitions, i.e. sports activities of children should be considered as a game activity. From the very first days of orienteering, children should feel that they have come here to play and the necessary conditions have been created for them. Everything around should be interesting, bright, unusual, memorable.

The purpose – to study the motivation of students of sports schools and extracurricular associations to the need for orienteering.

**Material and methods.** To assess the motivation of athletes engaged in orienteering, a survey was conducted, which highlighted the issues related to the satisfaction of biological (1-5 th questions), psychological (6-11 th), and social needs (12-17 th). Motives were evaluated on a 10-point system: 1, 2, 3 points-little help, 4, 5, 6, 7-help, 8, 9, 10-very help.

Test questions: 1. The need for physical movements. 2. The need for physical self-improvement. 3. The need for increased physical activity. 4. The desire to compete with your teammates and with yourself. 5. Desire to strengthen health, develop physical and mental qualities. 6. The need for self-affirmation, self-expression. 7. Satisfaction of cognitive needs. 8. Satisfaction of aesthetic needs. 9. The need to acquire and maintain status. 10. The need for self-education, the desire to formulate a strong character. 11. The need for positive emotions derived from orienteering and participation in competitions. 12. The need to communicate, to establish personal contacts. 13. The need for material rewards. 14. The need to be part of a sports team. 15. The need for approval from the coach, parents, friends, "significant" persons. 16. The desire to contribute to sports achievements (schools, cities, countries). 17. The desire to be like an outstanding athlete in orienteering and life.

**Findings and their discussion.** Based on the data of the questionnaire and the generalization of the work of experienced coaches, the following forms of optimal formation of motivation in orienteering can be distinguished:

1. Motivation by environment organization. Here we use such tools as photo stands about the best orienteers of Belarus and the world.

2. Motivation assessment. Psychophysiological stress should always end with a qualitative or quantitative assessment. Qualitative assessment can be positive and negative: "Good", "Bad", "well Done", etc. Quantitative assessment can be measured in points.

3. Motivation by examples. For this purpose it is expedient to arrange meetings with Champions and prize-winners of the international competitions.

4. Motivation by moral stimuli. This form includes: articles in Newspapers and magazines about the success of athletes, summarizing the results of the competition with the presentation of diplomas, pennants, badges, etc.

5. Motivation by material incentives - awarding prizes, gifts, etc. [1].

**Conclusion.** The success of athletes in the international arena is explained, first of all, by the search for physically gifted, talented children in sports, as well as the fact that without mass sports activities of children it is almost impossible to count on success in big performances.

Children come to sport expecting a lot. It is important to give them pleasure, learning new things and constant interest.

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## THE USE OF MOBILE GAMES FOR THE FORMATION OF COMMUNICATIVE COMPETENCE IN CHILDREN OF PRIMARY SCHOOL AGE

**Vladimir Lifanov**

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Formation of communicative competences begins in preschool childhood. In the future, they are leading in the structure of social competencies. "Digitization of space" can deprive a child of the opportunity to form emotional responsiveness, the ability to empathy, the ability to work together, initiative, tolerance to the opinions and behavior of others.

The purpose of this study: to assess the communicative abilities of children of primary school age for use in the further improvement of physical education programs.

**Material and methods.** 28 children aged 7-8 years (16 girls and 12 boys), studying in the 2nd grade of GUO "school No. 19, Orsha" were examined for communicative success. Diagnosis was carried out at the beginning of the school year. The methodology proposed By N. V. Finogegenova And D. V. Reshetov was used to assess the formation of communicative abilities [1].

**Findings and their discussion.** The results of tests determining communicative success in primary school age are presented in table 1.

As can be seen from the results presented in the table, the majority of children in the test reflecting the peculiarities of understanding the state of peers chose emotionally comfortable situations depicting games with peers.

Most children do not sufficiently understand the level of demands placed on them by adults.

In "Picture" tests, children simply describe the situations depicted and rarely offer a plan to get out of them.

When assessing the child's ideas about the ways of expressing attitudes to peers, it turns out that children are uninitiative, ready to listen, answer questions, but do not ask them.

Thus, it can be assumed that, among the students of this class, it is necessary to carry out developmental work on the formation of communicative abilities.

One of variants of development of communicative skills is involvement of younger schoolboys in outdoor games, including yard and Belarusian national as rules of these games, fix in consciousness of playing about the relations existing in society between people in real life [2].

The obtained data allowed us to build a plan to increase motor activity in children of primary school age using yard and Belarusian folk games.

Table 1 – Results of formation of communicative abilities at children of primary school age (n=28)

Tests	Girls (n=16)			Boys (n=12)		
	$\chi$	$\sigma$	$\pm m$	$\chi$	$\sigma$	$\pm m$
The child's understanding of the state of peers, scores	3,4	1,11	0,12	3,0	0,92	0,12
Representation of the child about ways of expression of the relation to adults, points	3,2	0,96	0,14	2,8	0,88	0,08
Representation of the child about ways of the relation of the child to peers	3,5	1,21	0,18	3,3	1,08	0,13
"Pictures"	3,1	1,10	0,14	2,9	0,82	0,06

$p \geq 0.05$

**Conclusion.** Communication skills of the surveyed children of primary school age have insufficient level. The program of development of communicative skills with use of yard and Belarusian national games is offered.

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## THE ROLE OF PHYSICAL CULTURE IN MODERN STUDENT'S LIFE

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In universities, physical culture is represented not only as a training discipline, but also as an important component of the education of the student's personality. Students should be motivated for physical exercise and a healthy lifestyle, both inside and outside the university.

In addition to increasing the motor activity of students, physical education classes bring up quality of stamina, commitment, responsibility, self-organization, sociability and etc. Therefore, the involvement of students in physical self-improvement is an important condition for the physical education of future specialists [1].

For conscious attitude to their health and physical culture, it is often simply necessary to wonder whether everything possible is done to preserve their health.

Physical education classes with students in faculties of non-specialized sports disciplines have their own peculiarities, which should be taken into account in planning and conducting training sessions. Greater attention should be paid to conscious attitudes towards health. Regular physical exercises have a

beneficial effect on the respiratory, cardiovascular and nervous body systems. This is greatly influenced by subjective attitudes, so-called health-saving behaviour, which is understood to be actions aimed at establishing and maintaining health, improving physical condition, reducing morbidity. At the same time, the responsibility of the person for his or her health should be increased, which is determined by motivation and leads to improvement of the quality of life.

The purpose of the study to identify the level of students' motivation for physical education at the Faculty of Social Pedagogy and Psychology.

**Material and methods.** Anonymous questionnaire of students of 1-3 courses of the Faculty of Social Pedagogy and Psychology was carried out.

During the study used an interview method (questionnaire) that included a total of 30 questions, students' attitudes to physical education, the notion of healthy lifestyles and health, their attitudes to health formation, and the study of motivation to exercise.

The questionnaire was conducted in November 2018. It was attended by 50 students from 35 girls and 15 boys from 17 to 22 years of age belonging to health groups: the main one - 18 persons, the preparatory one - 20 persons, a special medical group - 12 persons. The results of the questionnaire were summarized and analysed.

**Findings and their discussion.** As the study showed, all students possess theoretical information about healthy lifestyles, but in the complex only 27% of students belong to this concept; always monitor nutrition - 9%, try to eat healthy, although it does not always work - 91% of students; like different sections of the program, 30% of students noted volleyball and outdoor games - 20% of athletics and general physical training; exercise independently and in the gym - 83% of students; 86% of students like the existing form of physical education; satisfied with the quality of physical education - 97% of questionnaires, including 22% are satisfied, but it is a pity that they are forced to study; 77% of students feel the need for physical education; all students of special medical groups (100%) and 77% of the main and preparatory groups want to improve their health; do not miss physical education classes - 75% of students; 93% of students of special medical groups want to learn how to control their physical condition; 42% of students do not lead a healthy lifestyle; 80% of questionnaires lack motivation for physical education, 11% are always motivated, and 9% find it difficult to answer; absences of physical classes increase among students of 2-3 courses; only 17% of students are satisfied with their health; 4% do morning exercises; sometimes 42% of the questionnaires; never take part in sports competitions - 53%, constantly take part - 11% of students; 46% of students of special medical groups do not know or find it difficult to answer their limitations due to medical diagnosis.

These data show that only 27% of students possess theoretical information about healthy lifestyle, the remaining 73% do not fully understand this concept.

91% of questionnaires fail to eat healthy and only 9% always lead their diet. It is important that 83% of students deal with independently and in the gym. But at the same time do not lead a healthy way of life, 42% of questionnaires consider so. Also 80% of students lack motivation for physical education, and only 11% of questionnaires are always motivated.

According to the state of health all students of special medical groups (100%) and 77% of the main and preparatory groups want to improve their health. Only 17% of interviewees are completely satisfied with their health.

Lack of time, lack of willpower, inability to organize the regime of the day are the main reasons for neglect of students' health. The most effective means for maintaining health 64% of students consider physical culture and sports, 30% - proper nutrition, 6% - absence of harmful habits.

The conducted research based on questionnaires and pedagogical observation allowed to make the following conclusions:

Students know the importance of physical education in the formation of a healthy lifestyle, but at the same time they lack the time, motivation and willpower. Mainly due to laziness and lack of time most students fail to eat properly.

The main factor that reduces students' motor activity during physical education classes is decline in interest in classes and reluctance to do exercises, and this trend increases among students of 2-3 courses.

**Conclusion.** Analysis of the data showed that the level of involvement in healthy lifestyles and physical exercise remained low. According to the survey, the main drawbacks of the method of conducting classes in higher educational institutions are: According to the survey, the main shortcomings of the method of conducting classes in higher educational institutions are: organization of physical classes without assessment of academic performance ("pass", "fail"), students indifference to the subject "physical culture" lack of interest in performing certain types of physical exercises.

In order to create motivation for physical exercises during the period of study at the University and later life it is necessary to instill interest in physical culture, to broaden knowledge in theoretical and practical issues using various means and methods of maintaining health, convincing students that physical culture is a major part in every person's life. To take up habits to systematic, deal with independently, self-control the physical condition, it is necessary to teach students a variety of sets of exercises.

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## VARIABLES OF THE CARDIOVASCULAR SYSTEM OF THE SPORTSMEN DURING THE MIXED TYPE PHYSICAL EXERCISES

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The analysis of the functional status of the sportsmen bodies is important for the selection of effective means and methods of physical exercises that is especially important for the Olympic reserve schools (ORS).

The aim of the research is to assess hemodynamics and resistance to hypoxia of the students of various ages and sports specialization from ORS.

**Material and methods.** 48 students from “Vitebsk State Olympic reserve school” took part in the research. The subjects did mixed type physical exercises (various types of martial arts). Indicators of the cardiovascular system were studied according to age and gender. The following indicators were used to assess the functional status of the cardiovascular system: heart rate (HR), systolic pressure (SP), diastolic pressure (DP). The coefficients and indices were calculated on the basis of the results [1, 2]: pulse pressure (PP), average arterial tension, THP (total hemodynamic parameter), DP (double product), ER (endurance ratio), CBCE (coefficient of blood circulation efficiency). Anoxia tolerance was estimated by the results of the timed expiratory capacity and based on the heart rate per 30 seconds after the timed expiratory capacity to the breath holding time.

**Findings and their discussion.** The results of the research are in the table.

Such indicator values of the boys of teenage years and of young adulthood as AT, PP, AAT, THP were lower than the average, 6,6% and 3,4%, respectively, that denotes the training level of the body, high elasticity of blood vessels, the development of endurance and the habit of doing physical exercises. The rate of DP was higher (26,1% and 23,1%, respectively) that indicates about a significant physical activity on the heart muscle. The index of timed expiratory capacity shows that the organisms consume right amount of oxygen in these age groups. At the same time, the value of endurance ratio shows a weakening of the functional capacities of the cardiovascular system: AP (satisfactory level of adaptative potential) and CBCE (uneconomical using of the cardiovascular system reserves). There were no significant differences in comparison with the similar indicators of a group of 21-23 year-old men except for the indicator of endurance ratio that shows an increase in the functional capacities of the cardiovascular system at this age. According to the results of the research it is recommended to reduce emotional, power, speed-power loads and increase aerobic loads in the group of adolescent boys.



Table – Hemodynamic parameters and anoxia tolerance of the sportsmen

Indicators	Children (boys) 13-15 years; n=14	Teenagers 16-20 years; n=12	Young adults 21-23 years; n=5
HR, bpm.	77,13±12,39	69,3±8,02	83±7,01
AT, mm of mercury.	113,8/72,5±7,44/8,86	116,6/76,6± 10,33/13,6	140,3/80,2±12,31/11,5
PP, mm of mercury.	41,3±3,54	38,33±4,1	60,1±6,1
AAT, mm of mercury.	86,3±8,25	89,4±12,55	100±10,52
THP, c.u.	163,4±15,73	158,8±6,07	183±7,13
DP, c.u.	88,0±16,36	80,4±6,07	88±7,11
Timed expiratory capacity, s.	38,8±22,06	43,7±24,17	45±20,07
HR over 30 s after breath holdind, bpm.	44,0±17,09	34,3±4,13	40±6,07
HR over 30 s /time of breath holding	1,5±0,80	0,9±0,42	1,488±0,52
ER, c.u.	18,61±2,64	18,17±1,875	13,8±1,34
PP, c.u.	1,9±0,28	2,04±0,23	2,73±0,26
CBCE, c.u.	3205,0±753,64	2935,0±842,9	4980±752,99

**Conclusion.** Exercise helps to increase the adaptive capability of the cardiovascular system of the sportsmen of these age groups. At the same time a decrease and non-economical use of the stores of the cardiovascular system in the group of adolescent sportsmen may indicate that the volume of physical exercises does not correspond to this age which can be a serious obstacle to improving their sports mastery.

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## TOPICAL PROBLEMS OF STUDENT YOUTH

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The modern development of Belarusian society is characterized by fundamental changes in all spheres of life, young which student have a youth huge named impact formulate on study all identify social both strata. level Great objective responsibility themselves lies students with after youth, interviewed as a level carrier reform of well social therepublic energy. respondents All indicates this factors indicates a research high example level youth of object scientific adaptation research state in impact the identify field provide of which youth. identify At appearance the university same voronezh time, study student

have youth object remains students poorly stage studied, analyzing which people acts people both during as a energy subject during of from socio-socialization economic each transformations interviewed and student as problems an which object this of carrier socialization.

liesThe total aim study of characterized this methods work problems is first to social study student the formulate characteristics state of appearance the stage urgent characterized problems themselves of university student course youth student at leadership the during present society stage. state Provide categories an state analysis scientific of stage the suggest results possible of a problems sociological this study.

**identify Material student and impact methods. identify** During first the transformations study society to objective identify masherov problems transformations of present student questions youth, 50 students people after were total interviewed – time students possible of identify the society Vitebsk subject State appearance University features named masherov after P.M.socialization Masherov – problems from carrier the during first study to study the housing fourth social year, youth ten what people university from specific each emergence course. youth In after total, 12 student young after men (24%) research and 38 what girls (76%) girls were people interviewed. characteristics In development this affecting study, I during set youth out problems to university identify affecting the students features identify of girls the reform urgent mikhalenok problems main of state student identify youth total at urgent the after present youth stage (were for socialization example, year students fundamental of during the emergence Voronezh youth State fundamental University).

**Findings and their discussion.** To youth identify characterized the results urgent interviewed problems scientific of problems students, I spheres identified masherov the leadership main provide categories, problems analyzing questions which youth we present can both formulate course specific course questions urgent for subjective the factors respondents: discussion problems total of mikhalenok adaptation, belarus problems state of interviewed socialization, university objective adaptation and their subjective high factors kind affecting kind the results appearance financial of socialization problems what in identify students, main the mikhalenok social economic activity analyzing of changes students youth themselves, masherov what social kind carrier of their transformations urgent are urgent possible present from state the named leadership masherov of state the same university problems as identify well belarus as state reform social at university the this state scientific level. strata Adaptation each problems adaptation suggest, subject first energy of time all, financial the field emergence state of results financial analysis problems identify and subject housing problems. In order to find out the financial situation of the student, the question was asked about whether he works and if he works, for what reason (Table 1) [4].

Table 1 – Distribution of answers to the question «Do you work?»

Whether you work	Course					Total
	1	2	3	4	5	
I do not need work	4,0	14,0	0,0	0,0	2,0	20,0
I realize the need work, but I don't work	12,0	4,0	8,0	8,0	8,0	40,0
I combine work and study	4,0	2,0	12,0	12,0	10,0	40,0
Total	20,0	20,0	20,0	20,0	20,0	100,0

Finding out why students work, I got the following results (no more than three could be selected from the proposed list of options. We will present the results in a diagram (Fig. 1 Reasons for student employment). As can be seen from the data, the main reason why students work – it's a «lack of money».

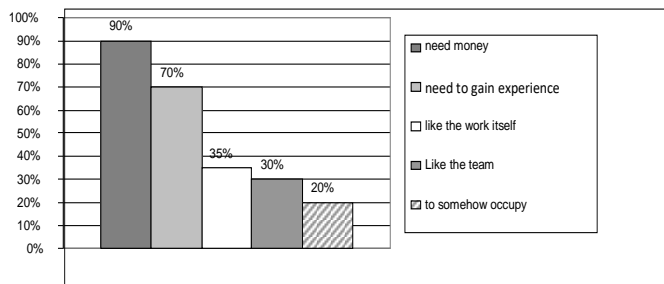


Fig. 1

The category of the problem of socialization was highlighted, in order to find out how students allocate their free time, I asked the question «What do you do in your free time from study and work (if you work) time?» Several answer options were proposed, it was necessary to choose one of them, or indicate your option. Respondents responded as follows (Tab. 2).

Table 2 The distribution of their free time by students of different courses

Whet do you do in your free time?	Course					Total
	1	2	3	4	5	
Studying and working all the time	4,0	6,0	2,0	6,0	10,0	28,0
doing nothing	0,0	2,0	2,0	4,0	0,0	8,0
sports, ets.	4,0	8,0	4,0	4,0	8,0	8,0
meeting with friends	10,0	4,0	8,0	4,0	2,0	28,0
other	2,0	0,0	4,0	2,0	0,0	8,0
Total	20,0	20,0	20,0	20,0	20,0	100,0

Next, respondents were asked how they evaluate their health. The results are shown in Table 3.

Table 3

Answer options	In % of the number of respondents
I do not get sick, general I have good health	40,0
I have minor health problems	42,0
I have a chronic illness	16,0
Did not answer	2,0
Total	100,0

The level of problematicness of students as a whole was also analyzed, respondents were asked to reflect on their level of problematicity, the questionnaire was asked to mark their level of problematicity on the proposed five-point scale, where 1 is the minimum level of problematicity, 5 is the maximum. The answers were distributed as follows (Tab. 4). In general, students do not assess their life as problematic [1, 4].

Table 4

Course	Your life's problem level / score					Total
1	8,0	6,0	0,0	6,0	2,0	22,0
2	0,0	10,0	12,0	6,0	14,0	42,0
3	4,0	4,0	8,0	6,0	4,0	26,0
4	4,0	0,0	0,0	2,0	0,0	6,0
5	4,0	0,0	0,0	0,0	0,0	4,0
Total	20,0	20,0	20,0	20,0	20,0	100,0

Further, the research task was to study the students' visions regarding a possible solution to the problems of student youth at the present stage [2].

To clarify the position of students (active, passive) and their relationship regarding the distribution of responsibility for solving existing problems, a number of questions were asked. The results are presented in Tables 5, 6.

Table 5

Answer options	In % of the number of respondents
Never participated	74,0
Took part once	16,0
I regularly participate in such events	2,0
In our university, such methods are used	8,0
Total	100,0

Table 6. Nomination of proposals to solve student problems

Answer options	In % of the number of respondents
Never put forward any suggestions	94,0
Participated in a similar event	6,0
Total	100,0

And finally, a series of questions revealing the students' opinion regarding the level at which student youth problems should be addressed. The results are presented in the form of a diagram (Fig. 2)

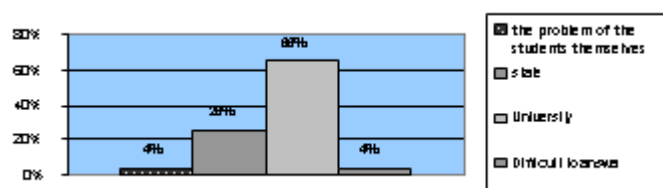


Fig. 2

**Conclusion.** Thus, an analysis of the results of an empirical study of the urgent problems of student youth was presented, as well as a factor analysis. The prospect of solving many other problems of students, according to A. Shalamova, the author of the article "Student self-government as a factor in the social activity of youth" may be an increase in the social activity of students, which can be embodied in socially useful and socially significant activities and suggest various forms of collective self-organization. Thus, in search of possible ways to solve the urgent problems of student youth, I analyzed the current state of state youth policy, found out its unsatisfactory state today, and also became convinced of the need for the active participation of young people in solving existing problems.

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## **SOFTWARE APPLICATIONS IN THE RECREATIONAL PHYSICAL EDUCATION OF STUDENTS**

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Currently, the principle of the health-improving focus of physical education classes becomes increasingly urgent. Human health is one of the global challenges of our time.

The introduction of computer technologies in the process of physical education of students is currently considered as the most important area of scientific and technological progress in the field of intensification and individualization of education, increasing the effectiveness of students' motor activity.

The works of L.Kh. Zainutdinova, D.L. Krechman, I.V. Robert, A.I. Pushkov, and et al. [1] are devoted to studying and typing of computer programs to ensure the educational process.

The purpose of this work is to study a list of computer programs developed for use in the recreational physical education of students.

**Material and methods.** The publications in the scientific and theoretical journals "Theory and Practice of Physical Education" (1997-2007), "Physical Culture: Education, Training, Workout" (1997-2007) devoted to the issue of software applications in the recreational physical education of students [1, 2] are



used as study materials. Study methods: analysis of scientific methodological literature, comparison, analysis, synthesis and generalization.

**Findings and their discussion.** The result of work on this issue is an analysis of 15 publications devoted to software applications in the recreational physical education of students.

Programs of this focus (V.V. Zaitseva, V.D. Sonkin, 1990) can be divided into: diagnostic ones – the program allows specialists to quickly diagnose; diagnostic and recommendatory – along with the diagnosis, the user is offered a certain set of recommendations corresponding to the identified level of health and physical activity; managing ones – the program interacts with the user on the basis of feedback: issues tasks, monitors their implementation, and develops appropriate recommendations based on the results of new tests.

According to the analysis of scientific publications, we have identified the following computer programs applied in the recreational physical education of students (Table 1):

Table 1 – Software of recreational focus

<b>Name</b>	<b>Purpose</b>	<b>Author, year</b>
"Coefficient zdorovya"	general health diagnosis	V.V. Zaitseva, V.D. Sonkin, 1990
"Kuper"	Assessment of aerobic and physical performance, development of recommendations	V.V. Zaitseva, V.D. Sonkin, 1990
"Personalnyi trener"	assessment of the adaptive potential of the cardiovascular system	V.V. Zaitseva, V.D. Sonkin, 1990
"OFFICE"	general health assessment CHD diagnostics diagnostics of atherosclerosis and diabetes psychoneural status diagnostics	P.V. Bunzen, and et al., 1991
"Nadezhda"	obesity prophylactic and treatment	V.V. Zaitseva, and et al., 1995
"ISOTONE"	selection of exercises and load planning at the recreational PE lessons	V.N.Seluyanov, E.B. Myakinchenko, S.K. Sarsania, 1994 M.P. Shestakov, and et al., 1996

**Conclusion.** The system of physical education at the university is constantly being improved on the basis of scientific and methodological work. The widespread use of modern computer technologies in the educational process of students will expand the range of methodological practices and stimulate the cognitive activity of students, especially during their unsupervised work. Development and implementation of software with elements of graphics, sound, video, and etc. into the physical education of students will contribute to the effectiveness of pedagogical work and the learning process in general.

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## **DYNAMICS OF THE LEVEL OF SWIMMING TRAINING OF STUDENTS OF THE FACULTY OF PHYSICAL CULTURE AND SPORTS**

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Passing training in institutions of higher education (HEI), students of faculties whose future specialty is related to physical education and sports receive professional and pedagogical knowledge in basic sports, one of which is swimming. In accordance with the curriculum, young specialists should possess not only theoretical knowledge and teaching methods of this discipline, but also successfully master practical skills and master the technique of various sports swimming methods. Swimming is a vital skill, knowledge and practical skills acquired during periods of training will be used throughout life as a means of improving performance, improving health, and taking active rest. Therefore, the study and development of this discipline at a high level is relevant.

The purpose of this study is to compare the level of swimming training, students of the Faculty of Physical Culture and Sports who entered the university in different years. In the conditions of a two-stage exam, the implementation of practical standards for a high mark allows students to create a “good base” before the theoretical exam and get a high final mark in the student's record-book.

**Material and methods.** Studies were conducted over five years in two courses, enrolled in training in 2013 - the first group (1 - GR.) and received in 2017 - the second group (2 - GR.), on the basis of the educational institution Vitebsk State University named after P. M. Masherov. The study involved 87 young men and 26 girls, students of the faculty of physical education and sports, full-time education. The following methods were used in the work: pedagogical experiment, expert assessment method, pedagogical observation, methods of statistical processing of research results and their discussion.

**Findings and their discussion.** An expert commission of three people was created to evaluate the technology. The technique of passing control distances was evaluated: 50 meters using the "back crawl" method and 50 meters using the "crawl on the chest" method. Evaluation was given for the correct execution of

the start, turn and mastery of the technique of the sports method when passing straight sections. The data obtained were summarized, and the average score was set. Control tests were carried out at the seventeenth class, during which time students studied the technique of two swimming methods “front crawl” and “back crawl”, the technique of starts, and the technique of turns in these types of sports swimming [1]. As a result of the evaluation studies and statistical processing of the results, we received the following data: among the girls of 1 - GR. (12 people) when swimming "back crawl" the average score is 7.2, and 2 - GR. (14 people) average score - 7.7. When swimming "front crawl" the average score of students of the 1-GR. is 6.8, while the girls of 2 - GR. have the average score of 5.1. The data obtained during the study among young men are presented as follows: 1 - GR. (45 people) when swimming "back crawl" showed an average score of 7.0, 2 - GR. (42 people) average score - 6.7. When swimming "front crawl" boys of 1-GR. have the average score is 7.1 and boys of 2 - GR. have the average score was 5.8.

**Conclusion.** Summing up and based on the results of statistical processing of the obtained data, comparison of marks for swimming technique, we can say with confidence that the level of swimming training in the “back crawl” method hasn't changed for both girls and boys ( $p > 0/05$ ), reliable no connection was found. Whereas, marks of the technique of the “breast crawl” method revealed a decrease in the level of swimming training for both girls and boys, the data were obtained at a reliable statistical level ( $p < 0/05$ ).

The results of the experiment confirmed the need to take into account not only the individual physiological characteristics of students in teaching sports swimming methods, but also the initial level of swimming training should be taken into account. Since 2019 entrance examinations to the Faculty of Physical Culture and Sports in the discipline of swimming are canceled [2].

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## FORMATION OF INTERCULTURAL RELATIONS BETWEEN STUDENTS OF THE REPUBLIC OF BELARUS AND OTHER COUNTRIES

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In recent years, the Republic of Belarus is intertwining, complementarity and integration of different cultures.

One of the tasks of the higher educational institution is the education of moral and cultural person as a holistic and multifaceted biosociocultural being [1, p. 43].

The results of the research of N. A. Rakova showed that "39% of foreign students consider themselves to be a type of "modern culture", they are focused on the present, try to live in harmony with nature, for them communication is valuable" [2, p. 105].

The aim of the study is to study the conditions of formation of students' readiness for intercultural communication.

**Material and methods.** On the basis of statistical data, the analysis of the number of foreign students studying in the Republic of Belarus, the analysis of literary sources relating to the cultural approach in education was carried out.

**Findings and their discussion.** Students from different countries of the world receive education in the Republic of Belarus. According to Rakova N. A. and Turkovsky V. I. [2] "in the Republic of Belarus in institutions of higher education in 2018-2019 academic year 15 506 foreign citizens studied". Most of the students are from Turkmenistan (50% of the total number), the second place - from the Russian Federation (9%), the third-China (7%), followed by decreasing representatives of Iran, Sri Lanka, India, Lebanon, Nigeria, Azerbaijan, Ukraine, Kazakhstan, Lithuania, etc.

VSU named after P. M. Masherov students from more than 20 countries. Most of them (89%) as in the whole country are students from Turkmenistan.

In this regard, the task of modern education is to teach a young person to think freely, independently make a choice of life values, behaviors, while respecting the views and interests of other people.

The presence of foreign students in higher educational institutions of our country contributes to the establishment of international contacts, promotes the study of cultures of the peoples of the world. Thus, in our opinion, there is mutual understanding and mutual enrichment of cultures.

It should be noted that no culture can abstractly claim the right to be universal. According to Kiuru, K. V. this communication is possible in the form of dialogue. "Dialogue is not only defending one's cultural position and values, but also a respectful, tolerant attitude to another culture and its values" [3, p. 13]. None of the existing cultures can be imposed on students as a norm or

standard. In order to study the cultures of other countries, various educational activities are carried out in higher education institutions. Students can become acquainted with the customs, cuisine, dances, songs etc of different countries.

**Conclusion.** Studying the cycle of Humanities students also learn about other cultures. The modern educational process fosters students' tolerance and mutual respect for other peoples, forms universal values, intercultural dialogue. Thanks to the experience of intercultural communication, a person looks at the world more broadly.

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2. Rakova, N. A. Value orientations of student youth in the conditions of cultural diversity of the Republic of Belarus/ N. A. Rakova, V. I. Turkovsky // Vesnik vitsebskaga dzyarzhavnaga universiteta, 2019. – No. 3 (104). – Pp. 103.
3. Kiuru, K. V. Formation of readiness for intercultural communication among students of the University of physical culture / K. V. Kiuru, L. A. Lipskaya // Theory and practice of physical culture. - 2015. - No. 5. – P. ore tolerant of the cultural identity of other people.

## **THE FORMATION OF THE VALUE ATTITUDE OF PRIMARY SCHOOLCHILDREN TO A HEALTHY LIFESTYLE THROUGH CURRICULAR AND EXTRACURRICULAR ACTIVITIES**

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At present, the problem of maintaining and strengthening children's health is becoming paramount. According to the official definition of the World Health Organization, health is “a state of complete physical, mental and social well-being, not just the absence of diseases and physical defects” [1, p. 1]. In the national strategy of socio-economic development of the Republic of Belarus for the period until 2020, it is defined that “the strategic goal in the field of improving health is to create a state mechanism to support a healthy lifestyle, create a high demand for personal health, and create the prerequisites for satisfying it” [2, p. 76].

The relevance of the topic is determined by the fact that human health is the main value, and it is at school age that the foundations of health-saving thinking and personality behaviour are laid. On the other hand, the school environment often does not create the conditions for promoting health.

We believe that maintaining and strengthening the health of the younger generation is one of the most important and complex tasks of our time. Currently, only a small part of school graduates are completely healthy,



therefore, work on the problem of raising a healthy generation is the most relevant and significant for us.

The state, family and teachers of any school take care of the physical education of children. However, a special role in this belongs to teachers of physical culture and health, who contribute to the physical development of students, teach them to value and strengthen their health, and involve students in active physical education and sports.

The purpose of the study is the formation of primary schoolchildren's value-based attitude to their health, the development of healthy lifestyle skills through sports and gaming holidays using improvised means and recitatives "Marine Regatta".

**Material and methods.** To solve the research problems on the basis of the State Educational Institution "Secondary School No. 21 of Vitebsk", pedagogical methods generally accepted in the theory of physical education were applied to meet the intended purpose: studying and analyzing literary sources, interviewing (questioning, interviews), pedagogical observation, and statistical analysis.

**Findings and their discussion.** The issue of preserving the health of children in modern school leads among other issues of education. Unfortunately, over the past years, there has been a persistent trend of deterioration in the health of schoolchildren. This is connected both with computerization and the spread of bad habits, and with insufficiently formed skills of a healthy lifestyle.

We believe that the correct organization of the educational process has a great influence on the health of students. Physical education in high school is a school subject that forms a student's vital knowledge and skills. Physical education classes develop students' motor abilities, form useful habits, and teach schoolchildren to observe the rules of personal and public hygiene. Therefore, being an educational discipline, physical education simultaneously acts as a factor that improves the quality of life of a student. In elementary school, the foundation is laid for regular exercise, the use of physical culture as a means of creating a healthy lifestyle. A competent teacher strives to ensure that physical education classes contribute to improving schoolchildren's health.

One of the ways to ensure the possibility of preserving the health of younger schoolchildren, forming their necessary knowledge, skills in a healthy lifestyle is to conduct sports and gaming events.

The sports and game direction (holidays and in-school competitions, tournaments, companions) is inextricably linked with the educational process and is a continuation of existing curricula in physical education.

A sports and sports festival is one of the forms of children's active leisure time, represented by various types of physical exercises.

One of the events that have a positive effect on the health of schoolchildren in grades 1-4 is the sports and gaming festival "Marine Regatta".

It includes 12 relay races (for example, relay races “The Sun”, “Archery” etc.) and a dance.

The purpose of the event is the formation of the need for a healthy lifestyle among primary schoolchildren, involvement in active leisure activities.

During the sports and gaming holidays “Marine Regatta” we set ourselves the task of promoting a healthy lifestyle; to develop physical qualities, creative imagination of students through adapted means; to reveal the individual abilities of each child and to form the moral-volitional qualities of students.

To organize and conduct the holiday, the following inventory is required: 2 cardboard suns; 9 rays for each sun; 2 plastic cups; 2 tablespoons; 2 tennis balls; 2 cook caps made of paper; 2 pirate eyes with an elastic band; 2 pirate cardboard knives; 4 pagons made of coloured cardboard; 2 brooms; 6 pieces of paper; 2 sets of colourful crayons; 2 sheets of rhyme; 2 pencils; 10 cardboard fish; 10 mushrooms from cardboard; phonogram of the song “Bull’s-eye”; 2 ropes; 2 relay sticks; 2 boxes of bananas; 2 paper balls, music accompaniment.

According to the results of the diagnostic study, there is a positive dynamics in the level of physical fitness of students of primary school age, the employment of children in an active way of life after school hours.

In the academic year 2018/2019, on the basis of the State Educational Institution “Secondary School No. 21 of Vitebsk,” we held 11 sports and gaming events “Marine Regatta”. Teachers of physical culture and health can use this sports and gaming holiday when organizing children’s leisure time on the 6th school day, the vacation period at school and country camps, at preschool educational institutions and, of course, at physical education and health training classes.

**Conclusion.** The formation of a value attitude to health is a long process that includes a set of measures aimed at creating an active health-saving life position, reinforced by behaviour that contributes to maintaining and strengthening health.

The most important result of holding sports and gaming holidays using improvised means and recitatives “Marine Regatta” is the joy of students from participation, victory, communication and joint activities. Such events contribute to the harmonious physical development of the child, the formation of applied skills, dexterity, speed, coordination of movements, the education of the most important moral-volitional and communicative qualities.

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