Ministry of Education of the Republic of Belarus Educational Establishment "Vitebsk State P.M. Masherov University"

# THE YOUTH OF THE 21st CENTURY: EDUCATION, SCIENCE, INNOVATIONS

Proceedings of III International Conference for Students, Postgraduates and Young Scientists

Vitebsk, December 6, 2016

Vitebsk Vitebsk State P.M. Masherov University 2016

# UDC [378.147.88+378.4(476.5)](062) LBC 74.480.278я431+74.483(4Беи-4Вит)я431 Y75

Published by the decision of the Research and Methodology Council of the Educational Establishment "Vitebsk State P.M. Masherov University". Minutes № 1 d/d 25.10.2016.

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The Youth of the 21st Century: Education, Science, Innovations :
Y75 Proceedings of III International Conference for Students, Postgraduates and Young Scientists, Vitebsk, December 6, 2016 / Vitebsk State University ; Editorial Board: I.M. Prischepa (Editor in Chief) [and others]. – Vitebsk : Vitebsk State P.M. Masherov University, 2016. – 276 p. ISBN 978-985-517-559-0.

The collection of articles includes the Conference proceedings submitted by the authors at the International Conference for Students, Postgraduates and Young Scientists "The Youth of the 21st Century: Education, Science, Innovations" and dedicated to solving current scientific issues in natural sciences, technical sciences and humanities. The articles may be used by scientists, teachers, postgraduates, undergraduates and students of higher educational establishments.

UDC [378.147.88+378.4(476.5)](062) LBC 74.480.278я431+74.483(4Беи-4Вит)я431

ISBN 978-985-517-559-0

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

# DEVELOPMENT "EDITOR-SECTIONS" FOR SOLVING TASKS ON THE PROJECTION DRAWINGS

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At present, computer graphics can help to solve problems in the projection drawings. In practice, the structural problems are solved in the space on the projection drawing using common drawing tools (such as ruler and compass) [1]. In order to solve such problems we have developed application «Editor-Sections».

The aim of the objective of the program «Editor-Sections» is to create a powerful tool for the formation of the ability to work with projection drawings and solve stereo metric problems on construction.

**Material and methods.** QtCreator is used as development environment and C++ is used as programming language. Microsoft Access database uses to implement «taskbook» program. SQL selected to handle database. It was held pedagogical experiment in the study of methods of teaching mathematics in which students are involved, Faculty of Mathematics.

**Results and discussion.** The program «Editor-Sections» – is a tool that allows you to carry out construction on the projection drawing. With opportunities of OpenGL technology, using graphic primitives may carry out construction.

The program «Editor-Sections» has a two modes: Mode to create tasks and problem-solving mode.

The application allows you to build a projection of geometric bodies: pyramids, prisms.

However, the program has a «point manipulator», which allows you to change the selected figure by the user. The result can be obtained, for example, an angled prism or pyramid whose base is a polyhedron with a predetermined number of vertices in advance.

The application has a «taskbook». It has a number of tasks, divided into specific topics. At the moment the «taskbook» has the following topics:

- the angle between the straight lines;

- the angle between the straight line and the plane;

- the angle between the planes;

- sections.

Section «Sections» is a task designed to explore different methods of constructing the cross sections. For example, parallel projection method, the following method. When the user finished solution of a task, the result section would be painted in color. The program has an opportunity to build a line parallel to the given line and a line perpendicular to the given line.

To create the database used by MS Access.

Non-procedural language SQL queries used for database management.

Describing the SQL language as a whole, following its characteristics can be distinguished to:

• The high-level structure, which resembles the English language;

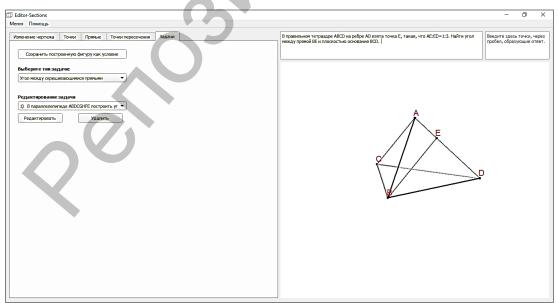
- Regardless of the specific DBMS;
- Cross-platform portability;
- Presence of developing standards;

• The ability to perform interactive data retrieval requests and modifications of their structure [2];

Consider the example of the work program.

Condition. The ABCD regular tetrahedron to the AD edge point E is taken in respect of AE: AD = 1: 3. Find the angle between the straight line and the plane BE BCD base.

Picture 1 shows the «Task Editor» window mode. The user enters a condition in the main menu, the program selects a pyramid with three vertices at the bottom. The program creates a tetrahedron. After the constructs defined by the condition, drawing the user saves the figure as a condition. To answer field, it is necessary to solve the problem, and the point of forming a response record by a space.



Picture 1 - «Task Editor» window mode

4

Turning to the «task-solving» mode, the user, solving the task, it receives a response. Answer is entered into the «answer» field. When the answer is correct, a dialog box appears informing the user about the correct solution to the task.

Computer program «Editor-Sections» at the development stage, can:

- Rotate the images of bodies in space

- To create images of prisms and pyramids;

- Build additional points on the edges of the figures;
- Find the point of intersection of straight lines;
- Carry out direct through the given points;
- To build a line parallel to this;
- To build a line perpendicular to this;
- Solve tasks involving the construction of sections of different methods.
- Create tasks for subsequent decisions

**Conclusion.** At this stage, research is continuing to study the possibilities of using OpenGL technology for the realization of the developed software product, improved interface, and the program is filled with geometric shapes and content of tasks.

#### Reference list:

- 1. Gusev, V.A. Workshop on elementary mathematics geometry / V.A. Gusev, V. Litvinenko, A.G. Mordkovich. M. : Education, 1992. 337s.
- Schlee, M. Qt 4.8 Advanced Programming in C ++ / M. Schlee. Moscow: St. Peterburg, 2012. – 858 s.

# METHODS OF LEARNING RELATIONSHIP BETWEEN PRODUCTION VOLUME AND FIXED ASSETS IN THE INDUSTRY BASED ON TIME SERIES

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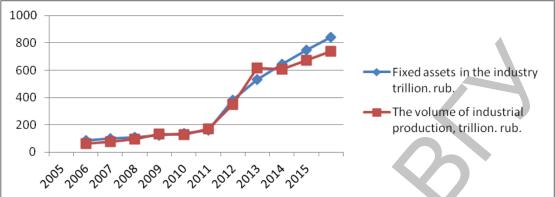
In the statistical study of relationships by the methods of analytical grouping and correlation analysis, the dependence is examined the relationship between attributes, varying in space together.

Purpose of the study – it is often necessary to explore communication, manifested in time development. For example, it is necessary to establish whether there is a link between changes in fixed assets in the industry and changes in the volume of industrial production.

**Material and methods.** The study was conducted according to the statistical compilations "Belarusian Industry" [1, 2] about the fixed assets in the industry and the volume of industrial production in the period from 2005 to 2015. The relationship of time series analysis of selected parameters was

studied using the methods of correlation and regression analysis, however, is not based on actual data, but the deviations from trend.

The time series diagram (Picture 1) shows that indexes is quite closely linked to its development, but it takes a quantitative measurement of this relationship.



Picture 1 – Time series of volumes of fixed assets in the industry and in industrial production

Throughout the reporting time period an increase is observed in the volume of fixed assets in the industry and in industrial production. Since 2010, there has been a striking rise than in previous periods.

Let us find the equation of the trend [3, p.518]

• equation for the volume of fixed assets in the industry - y = 82.2384x - 164948 and the magnitude squared  $- R^2 = 0.8826$ .

• equation for the industrial production volumes y = 76.9046x - 154246 and the magnitude squared  $- R^2 = 0.8845$ .

In the study of the relationship between socio-economic phenomena of the time series the problem is arisen with the fact that, if the two signs are the trends in the same direction level changes between the levels of these attributes will be observed the positive covariance. In both levels? series of the previous years will be either than the levels of earlier periods. The correlation coefficient is positive. However, this is not evidence of a causal relationship. In such a case may arise, as "false correlations", and those correlations performance, backed by a real causal relationship.

**Results and discussion**. An analysis of this situation shows, that the levels of production volume is closely linked to the levels of plant and equipment, since the correlation coefficient was 0.987. Both features have the same direction of the trend – the increase in the volume of fixed assets in the industry took place in parallel with the increase in industrial production, and here it is possible to trace a direct causal link. However, we are talking about the cost parameters, which change is largely due to the effect of inflation. Therefore, it is necessary to establish whether this relationship is so close, so, you must ignore the distorting influence of trends: to calculate the deviation

from trend levels and measure the correlation is not level, and the vibrations of the two signs.

Substituting signs levels with the deviations from the trend in the formula of the pair correlation coefficient [4, p.120-125]  $u_{x_i}$ ,  $u_{y_i}$  we get:

$$r_{u_x u_y} = \frac{\sum_{(i)} (u_{x_i} - u_x)(u_{y_i} - u_y)}{\sqrt{\sum_{(i)} (u_{x_i} - \overline{u}_x)^2 \sum_{(i)} (u_{y_i} - \overline{u}_y)^2}}$$

However, the average deviation from the trend is zero. Substituting  $\overline{u_x} = 0$  and  $\overline{u_y} = 0$  in the above formula, we obtain:

$$r_{u_{x}u_{y}} = \frac{\sum_{(i)} u_{x_{i}} u_{y_{i}}}{\sqrt{\sum_{(i)} u_{x_{i}}^{2} \sum_{(i)} u_{y_{i}}^{2}}}.$$

The regression coefficient for the linear dependence takes the form:

$$b = \frac{\sum_{(i)}^{(i)} u_{x_i} u_{y_i}}{\sum_{(i)}^{(i)} u_{x_i}^2}$$

The constant term of the linear regression equation

$$a = u_y = bu_x = 0$$
.

The regression equation of deviation from the trend is as follows:

$$u_{y} = bu_{x}$$

The coefficients of correlation level volumes of fixed assets in the industry and in industrial production

$$r_{xy} = \frac{777807.2}{\sqrt{842946.8 * 735503.0}} = 0.98782 \,.$$

Direct communication is equally aimed trends fully confirm a link between the signs of oscillations. Of the eleven works  $\Delta_{x_i} \Delta_{y_i}$  eleven positive. However, the relationship was close, but still the value of the correlation coefficient of deviation from the trend turned slightly smaller:

$$r_{u_{x}u_{y}} = \frac{\sum_{(i)} u_{x_{i}} u_{y_{i}}}{\sqrt{\sum_{(i)} u_{x_{i}}^{2} \sum_{(i)} u_{y_{i}}^{2}}}; r_{u_{x}u_{y}} = \frac{82113.3}{\sqrt{99003.7 * 84929.0}} = 0.8955.$$

The coefficient of determination  $r_{u_x u_y}^2$  is 0.801, or 80.1% of the variation amounts of fixed assets in the industry related to the fluctuations in industrial production. It was obtained the regression equation:

$$\overline{u_{y_i}} = 0.8294 u_{x_i}$$

It means that, on average over the period deviation from the trend of production volume was one-way sign and amounted to 0.8294 deviation value of fixed assets in the industry from its trend.

The resulting regression equation of deviations from the trend can be used for prediction.

**Conclusion.** Unfortunately, all of the above techniques, in essence, solves the problem of measuring the relationship between fluctuations in symptoms, and not between the tendencies of their changes. Smoking is allowed to transfer conclusions about the closeness of the relationship between fluctuations in the communication time series as a whole, it depends on the material, quality content and process of the causal mechanism. This is a problem that extends far beyond the limits of statistical science. Here the main thing – the causal relationship of the trends, but we have not learned how to measure it.

#### Reference list:

- Statistical Yearbook "of the Republic of Belarus Industry" by Ed. VI Zinovskogo. M.: 2013. – 25 p.
- 2. Statistical compendium "Belarusian Industry" by Ed. IV Medvedeva. M., 2015. 31 p.
- 3. Eliseev II, Yuzbashev MM E51 General Theory of Statistics: Textbook / Ed. II Eliseeva. 5 th ed., Revised. and ext. M.: Finance and Statistics, 2004. 656 p.
- 4. Introductory Statistics / Sheldon M. Ross Third Edition, University of Southern California, 2010.

# **ON X-LOCAL FISCHER FORMATIONS**

#### A. Atrashkevich

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In 1985 P. Förster [1] presented a common extension of the Gaschütz-Lubeseder-Schmid and Baer theorems. He introduced the concept of X-local formation, where X is a class of simple groups with a completeness property. Here X denotes a fixed class of simple groups satisfying  $\pi(X)=char X$ . Denote by I the class of all simple groups. For any subclass Y of I, we write Y = I \ Y. Let E Y be the class of groups whose composition factors belong to Y. It is clear that E Y is a Fitting class, and so each groups *G* has a largest normal E Y-subgroup, the E Y-radical  $O_Y(G)$ . A chief factor of *G* which belongs to E Y is called a Y-chief factor, and if, moreover, *p* divides the order of a Y-chief factor *H/K* of *G*, we shall say that *H/K* is a Y<sub>p</sub>- chief factor of *G*.

Sometimes it will be convenient to indentify the prime p with the cyclic group  $C_p$  of order p.

**Definition (P. Förster).** An X-formation function f associates with each  $X \in (char X) \cup X'$  a formation f(X) (possibly empty). If f is an X-formation function, then the X-local formation  $LF_X$  (f) defined by f is the class of all groups G satisfying the following two conditions:

1) if H/K is an  $X_p$ -chief factor of G, then  $G/C_G(H/K) \in f(p)$ , and

2)  $G/K \in f(E)$ , whenever G/K is a monolithic quotient of G such that the composition factor of its socle Soc(G/K) is isomorphic to E, if  $E \in X'$ .

Recall that a *Fischer class* is a Fitting class F satisfying the following property: if *G* is a group in F and H/K is a normal nilpotent subgroup of G/K for some normal subgroup *K* of *G*, it follows that  $H \in F$ .

Let f be an X-formation function defining an X-local formation F. Then f is called:

integrated if  $f(S) \subseteq F$  for all  $S \in (char X) \cup X'$ ,

full if  $S_p f(p) = f(p)$  for all  $p \in char X$ .

A formation F is said to be X-local if  $F = LF_X(f)$  for some X-formation function *f*. In this case we say that *f* is an X-local definition of F or *f* defines F.

**Definition**. X-local formation F is X-local Fischer formation, if F is X-local formation and Fischer class.

**Lemma [2].** Let  $F = LF_X$  (f) be an X-local formation, where f is a minimal X-local function of F. Then F is X-localy defined by the integrated and full X-formation function F given by  $F(p) = S_p f(p)$  for all  $p \in char X$  and F(S) = F for all  $S \in X'$ .

It is proved

**Theorem.** Let  $F = LF_X(F)$  be an X-local formation. Then F is a Fischer class if and only if F(X) is Fischer class for each  $X \in (char X) \cup X'$ .

Reference list:

- 1. Förster, P. Projektive Klassen endlicher Gruppen. IIa. Gesättigte Formationen; ein allgemeiner Satz von Gäschütz-Lubeseder-Baer. Typ. / P. Förster. Universitat Autonoma Barcelona, 1985. Vol. 29. № 2–3. P. 39–76.
- 2. Ballester-Bolinches, A. Classes of Finite Groups / A. Ballester-Bolinches, L.M. Ezquerro. Springer, 2006. 385 p.

# INFORMATION AND COMMUNICATION TECHNOLOGIES IN TEACHING COMPUTATIONAL MATHEMATICS

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The informatization of society is a complex process, affecting the whole society, all its systems, aspects and spheres of life, in particular the education. Information and communication technologies (ICT) is generalizing concept, describing various devices, mechanisms, ways, data processing algorithms [2, p. 27]. The use of ICT in education gives powerful impetus in improving its quality as well as does it more available than the traditional system. The main tool of ICT is PC. With the development of computer networks appeared web applications. In this work will be considered one of these applications as a tool in teaching numerical mathematics.

Actuality of this problem is caused: at the first, usage of these programs eliminates the need to have them on users computers – enough presence server, at the second, web applications are located on servers and it gives opportunity for using of centralization storages, to which will have access all the learners, at the third, possibility to appeal to an external resources for additional information, at the fourth, the possibility of control learners progress, by means of testing and building different graphics of progress. Of course, this type of applications has flaws: it requires a network with high capacity, powerful server, that can handle large volumes of data, to all other you need to administer server and application, if it has database, for example [1, p. 35]. And the main drawback is global industrialization [3, p. 40]. I. e. the learner which use ICT just consume information, no more. Missing feedback from learner, no constructive dialogue that is the fundamental method of learning information.

The aim of this work is to create tool simplify the process of teaching computational mathematics. The objective of this work to develop an application for solving the problems of computational mathematics.

**Material and methods.** As a material for the development of a software product were selected sections of computational mathematics: computational algebra, the methods of numerical analyzes, the methods of mathematical physics. This application is built using the MVC pattern – a fundamental pattern that is used in many technologies [1, p. 20]. For writing the program module was created the class structure in accordance with the principles of the objective-oriented programming (OOP), which reflects all the necessary sections of computational mathematics. To ensure visibility in solving problems was realized painting graphics and animation. Also theoretical material on all the methods was added.

**Results and discussion.** By the results of this work was realized software product which is web application for solving problems of numerical mathematics. An advantage of the application in addition to the above is that it is a universal learning tool, because, at the first, it contains short theoretical material on all the methods, at the second, includes features that work with many methods and during the learning, students can compare their solutions with solutions offered by the program, at the third, this application is an illustrative example object-oriented approach in the development of software thereby it simplifies and consolidates understanding of the principles of OOP.

**Conclusion.** From all the above it can be concluded that ICT is powerful tool. Its use does the learning process more productive and flexible. New alternative learning technologies is the result of promotion ICT in education [5, p. 64]. Timely introduction of its in educational process will provide full adaptation teachers and learners to them and it will allow to correct learning programs according with the new technologies. Clever use of the tools of ICT, in particular a web application, and combination traditional learning methods with them hides flaws and will be contribute increase the quality of leaning.

#### Reference list:

- 1. Budilov, V. Internet-Programming in Java / V. Budilov. Spb.: BHV-Petersburg.
- Dendev, B. Information and communication technologies in education / B. Dendev. M.: IITE Unesco, 2013. – 320 p.
- Dewey, J. Psychology and pedagogy of thinking. (How we think.) / J. Dewey. M.: Labyrinth, 1999. – 192 p. / Translate from English by N. M. Nikolskaya. Ed. by U. S. Rasskazova.
- Lysenkova, S.N. By the method of advanced teaching / S.N. Lysenkova. M.: Prosveshcheniye, 1988. – 192 p.
- 5. Unt, I.E. Individualizing and differentiation of teaching / I.E. Unt. M.: Pedagogika, 1990. 192 p.

# MODERN METHODICS OF STUDYING COMPUTATIONAL MATHEMATICS

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The role of information technology has been increasing in modern system of education. The problem of creating informative, simple in use, accessible for understanding of electronic textbooks of methodics on the basis of computer technology is becoming more actual in connection with these trends. This causes the problem of searching new forms of organization of teaching process, among which the development of electronic teaching methodical materials occupies a special place. Their task is to render practical help to students of educational institution in acquiring and mastering knowledge both theoretical and practical nature. The materials present a fulfillment laboratory works. guidance to of practical These recommendations can contain brief theoretical information, all necessary correlations, formulas and examples, tasks to perform laboratory work in accordance with the curriculum.

The aim of given research work is to study modern methodology of construction of teaching classes and working out of teaching methodological materials according to the course «Methods of numerical analysis».

**Material and methods.** Teaching aids, materials of lectures and laboratory works according to the course «Methods of numerical analysis» are used in researching as working material. Methods of research of general scientific nature and pedagogical experiment are realized.

**Results and its discussion.** Teaching methodological materials contain disclosure of one or more particular methods. They are developed on the basis of positive practical experience. The material on studying themes is stated in theoretical part in summary form. The material is systematized in the practical part. Practical recommendation are contained. They determine the order of actions in solving the problems. Be sure to contain one or more examples to illustrate the methodology in the real case.

The materials were developed for the students of the fourth and the fifth years, speciality «Applied Mathematics». Teachers' experience in terminology, stating style of the material and in volume of work was taken into account in writing.

In creation of methodical materials the following rules were adhered:

- the contents of work corresponds to the theme. Brief thesis information on given topic which is much easier to remember is proposed;

- all the materials are creative work, a kind of instruction how to do tasks in practice and what aspects of your work must be paid attention to;

- work on contents is not complicated. All presented material is described capaciously for the students in order not to lose interest to reading. The language in the text is laconic, simple and understandable. However, professional terminology was used in writing;

a great attention was paid to algorithm (sequence) of actions.

The materials are represented in the form of text documents. They are used for independent work, controlled by the course teacher when conducting practical classes as well as for students' independent studying of material.

Created methodological materials were put in local university network and were used in practice in studying the course "Methods of numerical analysis." The results of intermediate certification and course exam showed a high degree of students' progress of speciality «Applied Mathematics».

**Conclusion.** Research results received allow to integrate modern pedagogical technology. They can be used by university teachers in the process of studying computational mathematics and fulfillment of practical work in preparation of future specialists.

#### **ON A PROBLEM OF REMOTE-CONTROLLED ROBOT MODEL**

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Remote-controlled robots are one of the biggest areas of robotics. Robots are used to perform various tasks, where people cannot be directly involved. The basic robot control problem is the implementation of a given level of output of the linear and angular velocities. This task is very simple and well understood. However, if the controlling signal reaches the robot is not instantaneously but after some time, the quality of many automatic control algorithms deteriorates up to the loss of stability. The delay of control signal frequently occurs, for example, because of long calculations or in case of remote management. This paper presents a method for solving the described above problem based on predictions of the state of the object at the time of the action of the control signal.

**Formulation of the problem.** Consider a model of a remote-controlled robots with two-wheel drive, which is controlled by the speed reference  $v_r$  of the right and left wheels  $v_l$  (Figure 1). Consider the dynamic model of this type of robots [1]:

$$m\dot{v}(t) = F(t) - B_{v}v(t),$$
  

$$J\dot{\omega}(t) = T(t) - B_{\omega}\omega(t).$$
(1)

where  $(v, \omega)$  – linear and angular velocity of the robot; m – mass of the robot; F – resultant of the forces acting on the system;  $B_v$  – the coefficient of friction of translational motion; J – moment of inertia; T – moment of forsce;  $B_\omega$  – friction rotation.

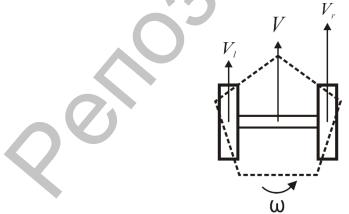


Fig. 1. The model with two-wheel drive

Force F and moment of forcee T can be expressed in terms of force  $F_r$  and  $F_l$  (fig. 2.) produced by the left and right motors of the robot, respectively:

$$F(t) = F_r(t) + F_l(t),$$
  

$$T(t) = l(F_r(t) - F_l(t)),$$
(2)

where: l – the distance between the wheels (or tracks) of the robot.

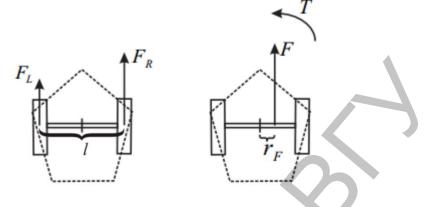


Fig. 2. The dynamic model of the robot

We introduce a new notation:  $e_m$  – average voltage on electric motors,  $e_d$  – the voltage difference in the electric motors. The force F and moment of force T are proportional to these values:

$$F(t) = k_m e_m(t),$$
  

$$T(t) = k_d e_d(t),$$
(3)

where  $k_m$  and  $k_d$  – coefficient of proportionality. Then the system (1) can be rewritten as follows:

$$\dot{v}(t) = k_v v(t) + k_m e_m(t),$$
  

$$\dot{\omega}(t) = k_\omega \omega(t) + k_d e_d(t),$$
(4)

Thus, the dynamic model of the robot is a linear stationary system. Now we introduce the system (4) of the control signal delay h:

$$\dot{v}(t) = k_{v}v(t) + k_{m}e_{m}(t-h),$$
  

$$\dot{\omega}(t) = k_{\omega}\omega(t) + k_{d}e_{d}(t-h),$$
(5)

The challenge is to stabilize the system (5) at a predetermined level (v\*,  $\omega^*$ ) linear and angular velocities.

**Solution procedure.** Then the system (4) can be rewritten the following form:

$$\dot{x}(t) = Ax(t) + Bu(t).$$
(6)

$$\mathbf{x}(t) = \begin{vmatrix} \mathbf{v}(t) \\ \mathbf{\omega}(t) \end{vmatrix}, \ \mathbf{u}(t) = \begin{vmatrix} \mathbf{e}_m(t) \\ \mathbf{e}_d(t) \end{vmatrix}, \ \mathbf{A} = \begin{vmatrix} \mathbf{k}_v & \mathbf{0} \\ \mathbf{0} & \mathbf{k}_\omega \end{vmatrix}, \ \mathbf{B} = \begin{vmatrix} \mathbf{k}_m & \mathbf{0} \\ \mathbf{0} & \mathbf{k}_d \end{vmatrix}.$$
(7)

Stabilize its management as:

$$u(t) = Kx(t), \tag{8}$$

where: K – the coefficient matrix, providing reversibility of matrix A + BK.

Now we introduce the system (6) of the control signal delay h:  $\dot{x}(t) = Ax(t) + Bu(t - h),$ (9) for it we will build the form of management as follows:

$$u(t-h) = Kx(t), \tag{10}$$

which can be rewritten in the form:

$$u(t) = Kx(t+h), \tag{11}$$

which clearly shows the same system without the delay. Therefore, to stabilize the system (9)it is necessary to know prognosis of system status by h seconds ahead. the forecast is calculated for the linear system with the Cauchy formula [1], and management (11) looks as follows:

$$u(t) = Ke^{Ah}x(t) + Ke^{At}\int_{t-h}^{t} e^{-A\theta}Bu(\theta)d\theta.$$
 (12)

To implement control as (12), we introduce an auxiliary variable

$$z(t) = \int_{0}^{t} e^{-A\theta} Bu(\theta) d\theta.$$
(13)

The variable z(t) satisfies the differential equation

$$\dot{z}(t) = e^{-At} Bu(t). \tag{14}$$

Thus, the compensating control (11) has its own dynamics:

$$\dot{z}(t) = e^{-At} Bu(t),$$

$$u(t) = K e^{Ah} x(t) + K e^{At} [z(t) - z(t-h)].$$
(15)

which is equal to a dynamic controller

$$\dot{z}(t) = e^{-At} BK e^{At} z(t) - e^{-At} BK e^{At} z(t-h) + e^{-At} BK e^{Ah} x(t),$$
  

$$u(t) = K e^{At} z(t) - K e^{At} z(t-h) + K e^{Ah} x(t),$$
  

$$z(t) \equiv 0 \forall t \in [-h, 0].$$
(16)

**Conclusion.** The above mentioned controller makes possible to calculate the state of the robot in terms of h seconds which allows to send to the robot the commands necessary to stabilize its condition considering the delay.

Reference list:

1. Krstic M. Delay Compensation for Nonlinear, Adaptive, and PDE Systems. – Boston: Birkhauser, 2009. – 466 p.

# **ROBOTICS IN EMERGENCY RESPONSE TRAINING SYSTEM**

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One of the most important and significant areas of scientific and technical activity of the Republic of Belarus is the support and development of technologies related to robotics. This is reflected in the Decree OF THE President of the Republic of Belarus dated April 22, 2015 № 166 "On priority

directions of scientific and technical activity in the Republic of Belarus for 2016-2020". Every year the number of international conferences, contests, competitions, forums devoted to robotics is increasing. A growing number of technical experts has begun to study robots. Nowadays Ministry of Emergency Situations create multifunction robot group for operation in special conditions such as, reconnaissance, rescue, fire-prevention, urgent recovery, related to radiation, chemical pollution and explosive danger.

The aim of the to find out relevance and need of development and deployment of the facultative course "Robotics" in training programs of training of specialists of the Ministry of Emergency Situations.

**Material and methods.** Robotics is an applied branch of science devoted to the creation of robots and automated technical systems based on mechatronic modules (sensory information, execution and management). Such systems are also referred to as robotic systems. Robotics is a branch of mechatronics. Mechatronics a discipline dedicated to the creation and operation of machines and systems with program control. Mechatronics is applied in machine-tools with program control, unmanned vehicles, modern office supplies and so on.

Training specialist who meets modern requirements of the labor market requires constant innovation in the learning process. In the context of promotion and development of robotics, special attention should be focused on training specialists in this field. At present, the development of goals, objectives and content of teaching the basics of robotics in various engineering (and other) areas of training and the various levels of education is a very urgent problem [1].

**Results and discussion.** In case of industrial accidents and fires in the large areas of high-risk of radiation, chemical and biological contamination, explosive, the problem of suppressing the fire, carrying fire-rescue and rescue and recovery operations, it is necessary to minimize the direct presence of people in the hazardous areas, thus eliminating the possibility of defeat. To carry out these works most effectively, the technologies of rescue operations using robotic systems for various purposes are applied [2].

Section of Robotics, concerning this area, is called "Extreme Robotics in emergency situations". Extreme robotics application for the benefit of Ministry of Emergency Situations of the Republic of Belarus covers the whole human environment.

In their professional activity specialists of units and divisions for emergency situations more and more are associated with the operation of a variety of robotic systems to perform their normal, daily duties using new technologies. Therefore, future graduates of educational establishments specializing in training highly qualified specialists for the units and divisions on emergency situations today require learning the basics of robotics on a level, depending on the competence graduate model. Therefore it is an urgent need to develop and introduce an optional course "Robotics" in the curricula of training for agencies and departments for emergency situations.

**Conclusion.** Concerning the above mentioned, there is a need to develop guidelines for teachers and students to teach robotics in different levels of education. At the present time it requires a complex work of teachers, trainers and training equipment manufacturers to establish a methodical teaching robotics system.

#### Reference list:

- Abdulgalimov, G.L. The Universal training of the future engineers robotics is an investment in the competitive future of our country / Abdulgalimov G.L., Kazehakase V.N., Galata A.A. // Higher education today, 2015. – № 6. – P. 9–11.
- Tsarichenko, S.G. Extreme robotics in the EMERCOM of Russia problems and prospects / C.G. Tsarichenko // Bezpieczenstwo i technika pozarnicza, 2012. – T. 28. – P. 97–105.

# USAGE OF THE MULTIPLE CORRELATION AND REGRESSIVE MODEL FOR PREDICTING OF VOLUME OF INDUSTRIAL PRODUCTION

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One of the main objectives of statistics is the identification and measurement of relationships between phenomena. The main objectives of the correlation analysis evaluates the strength of the connection and testing of statistical hypotheses about the presence and strength of correlation. Not all factors that influenced economic processes are random variables, so the analysis of economic phenomena usually focuses on the links between random and non-random variables. Such relation is called regression, and their learned by method of mathematical statistics called regression analysis.

There is shown usage of multiple correlation and regression model for predicting of volume of industrial production in this work. The purpose of our work was to establish connection between factorial signs and productive, to calculate parameters of this connection and to estimate their statistical certainty, and on this basis to carry out predicting.

**Material and methods.** For achievement of this goal we constructed the initial database and brought it in the spreadsheet Excel. Used the database from statistical book of industry in the Republic of Belarus which contains data about volume of industrial production, fixed assets, investments, salary and other indicators by types of economic activity for 2015 [4, p. 33, p. 74, p. 187].

When selecting factors for inclusion in the analysis, first it is necessary to analyze the qualitative nature of the investigated phenomena and to establish causal relationships between them. The initial database includes several factorial signs, then those which are most closely connected with result are selected and included in the regression equation. For this the method of multiple correlation and regression analysis was used.

**Results and discussion**. To estimate connection rate between signs, we constructed a matrix of pair coefficients of correlation. As a productive sign of y we used an indicator of volume of industrial production, billion rub., as factorial signs used:  $x_1$  – labor productivity, million,  $x_2$  – investments into fixed capital, billion rub.,  $x_2$  – specific weight of fixed assets, %.

To determine a connection form, we constructed schedules of the field of correlation on each couple of signs. In a form of an arrangement of points on graphics it is possible to make the assumption of existence of direct linear link between labor productivity and volume of industrial production. However this hypothesis needs to be checked. For this purpose we constructed the linear equation of pair regression, and estimated, how well it explains the actual connection between signs. Similar actions were done also for the second and third couple of signs.

A multiple linear regression equation can be written according of three factors:

 $y_{\tilde{x_1x_2x_3}} = -13704.8 + 97.9x_1 + 2.2x_2 + 9445.9x_3$ 

The coefficient value-added  $b_1$  regression shows that with increase in productivity of 1 million rub. / pers., the volume of industrial production increases on average for the aggregate on 97.9 billion rub.; with an increase in investment in fixed assets by 1 billion rub. the volume of industrial production increases on average for the aggregate on 2.2 billion rub., while increasing the share of fixed assets by 1 percentage point, the volume of industrial production increases on average for the aggregate on 9445.9 billion rub.

The results of analysis of variance was used to calculate the Fisher Ftest and evaluate the reliability of the regression equation generally and connection rate R. In this case,  $F_{a \text{ fact.}} = 10.1$ . The critical value of F-Fisher criterion can be determined by using the function = FINV (0.05; 3; 12). Since  $F_{\text{critical.}} = 3.5 < F_{a \text{ fact.}}$ , came to the conclusion to reject the null hypothesis of randomness in R and statistically significant regression equation generally. Consequently, the resulting value is not random, it was formed under the influence of significant factors.

Relying on all available data, we carried out predicting of value of industrial production. We use the following options predictions: in fact, short-term and the best values of factor variables. Actual prediction calculated by finding the average value for each factor. Next, we assume that the values of factorial signs will increase on 5%. Thus we calculated the short-term prediction. And the final prediction conducted by the best values of factorial signs, suggesting that they can be achieved on aggregate. We insert all known values in the multiple equation of regression and calculated the value of a productive sign expected on model. Results of calculations are given in table 1.1.

Table 1.1. Prediction calculation results							
	Possible values			Expected value of a productive attribut			
<b>Options prediction</b>	x1	x2	x3	y, mln	as% of baseline		
					*		
In fact, the base	6.08	4946.26	4.55	40751.04	100.00		
Short-term	6.38	5193.57	4.78	43471.92	106.68		
The best values of factor							
variables	25.21	19884.30	11.70	143025.75	350.97		

Table 1 1	Prediction	calculation	results
1 and 1.1.		calculation	ICSUILS

Results of predicting are show that increasing values factorial signs on 5% leads to an increase of value of industrial production on average for the aggregate on 6.68% compared to baseline prognostic value. In the third variant, prediction of value of industrial production will increase at 3.5 times under the condition that will be achieved on average for the aggregate of the highest values factorial signs.

**Conclusion.** Thus, during work we established connection between factorial signs and productive, calculated parameters of this connection and estimated their statistical importance. And proceeding from it carried out predicting of volume of industrial production.

#### Reference list:

- 1. Siegel A. Practical Business Statistics / Siegel A. 6th ed. Seattle : The University of Washington, 2012. 353 p.
- 2. Yakir, B. Introduction to Statistical Thinking / Yakir, B. Jerusalem: The Hebrew University, 2011. 254 p.
- Eliseeva I., Econometrics / Eliseeva I., Kosteeva T., Kurysheva S. Minsk, 2003. 343 p.
- Statistical book Industry of the Republic of Belarus / ed. by I. Kangro, O. Dovnar. Minsk: National Statistical Committee of the Republic of Belarus, 2016. – 33 p., 74 p., 187 p.

# CUMULATION OF THE CHILL AND COOLING UNDERGROUND VAULT FOR AGRICULTURAL PRODUCT

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Mankind has always stood the issue of storage of agricultural products cultivated until the next harvest. For long-term storage of agricultural products in storage must be of conventional type to maintain a certain temperature and humidity conditions. With the development of the theory of refrigeration and air conditioning, refrigeration units to the invention have an opportunity to resolve this issue. But the application of this method of storage is costly and it is reflected in the value of stored agricultural product, ie the product becomes more expensive.

What and set the task to develop optimal storage options.

Research to develop the best options for the storage of dry hot climate in Uzbekistan is aimed at solving the following tasks:

1. Study of the climatic conditions of Uzbekistan during storage of vegetables, fruits, berries and root vegetables (October-May).

2. On the basis of the material studied to analyze the technological requirements of storage and dawat explanation of the proposed storage options.

3. Razrabatyvat theoretical background calculation of unsteady heat transfer to the store.

4. Carry out experimental studies of heat transfer or storage model proposed option, or in full-scale facility and the results of the experiment sopostovit theoretical premises.

5. Show the feasibility and economic efficiency of the proposed option in the current mapping repositories.

6. Show the comparative advantage of the store from the previous version in the simplicity of design and operation.

Material and methods. In this paper, we propose a variant of the underground storage facility belonging to the so-called "machineless refrigerators," ie, no refrigeration plant. Cooling storage produced by accumulated cold in winter. Battery storage is ground covers on all sides.

The idea of using heat-retaining properties of the soil to change the temperature outside air was first considered O.Hettselem and designer E.G.Lo [1, 2]. However, the calculated dependences for determining the degree of change of supply air temperature has been proposed.

The task of changing the parameters of the motion of air in the underground ventilation ducts-N of doing Heerden, P.N.Smuhin, E.V.Stefanov [3, 4, 5]. The most important contribution to solving the

problems that characterize the change in the parameters of air when driving in the underground ventilation ducts, it was E.V. Stefanovym [6].

The accumulation of the cold in the ground array in two ways:

1. The accumulation of cold storage through ventilation ("passive" method of accumulation);

2. Accumulation of cold with ground heat exchangers ("active" method of accumulation).

These two methods can produce a cold accumulation separately or concurrently with one or two centrifugal fans.

The practical implementation of these methods is that the accumulation of cold soil file is carried out by displacement of cold air across the room (through ventilation) or channels located either in the building or outside buildings (ground heat exchanger).

**Results and discussion.** The use of channels (pipes) for the cold accumulation has the advantage that the reserves of cold can be actively used in the warmer periods of the year to provide the required parameters meteorolegicheskih air in the vault. These ground heat exchanger is well combined with a ventilation system storage. Note especially the proposed decision in principle. Thus, in winter the

outside air by heat exchange with the surrounding soil file several heated and thereby umenshaetsya installed power of the heat exchanger. In springtime, the outside air temperature is set near the dew point is considerably higher than the temperature of the inner surface of the soil heat exchanger.

Consequently, in this case there will be a bulk moisture condensation, and downstream of the soil heat exchanger obtain cold air with a relative humidity close to 100%.

Upon entering the warm and humid air in the initial section of the soil heat exchanger is cooled, and further heat exchange process is carried out with a bulk condensation. With regard to the high relative humidity in the underground storage facilities, it should take into account the entry of moisture through the building envelope due to their water vapor.

**Conclusion.** In conclusion, it can be concluded that turns out to be advantageous to use an underground storage facility for long term storage of agricultural products. In this case, it decreases the installation of equipment for cooling capacity, reduce operating costs and energy can be saved motoresource refrigerators.

# Reference list:

- 1. Хетцель О. Воздух из грунта, его получение и использование, 1944.
- 2. Ло Е.Г. Неиспользуемое богатство, воздух из грунта, 1950.
- 3. Van-Heerden. «Klimatisierung von Innenraumen durch Ausnutzung der Temperatur des Erdreichs»/ Heizung Luftung Haustechnik. №9, 1966.
- 4. Смухин П.Н., Казанцев Б.А. Курс отопления и вентиляции // ВИА им. Куйбышева, 1961.

#### DEVELOPMENT OF THE THEORY OF MATHEMATICAL MODELING

- 5. Стефанов Е.В. Вентиляция и кондиционирование воздуха. Л.: ЛВВИСКУ, 1982.
- Стефанов Е.В. Результаты исследования неизотермического течения несжимаемой жидкости в подземных каналах и трубах // Инженерно-физический журнал XI-4-1966.

# PREDICTION OF THE RETAIL COMMODITY CIRCULATION OF MONEY INCOME OF POPULATION

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A retail commodity circulation describes the final stage of the movement of goods from the sphere of circulation into the sphere of consumption. This is one of the most important economic indicators.

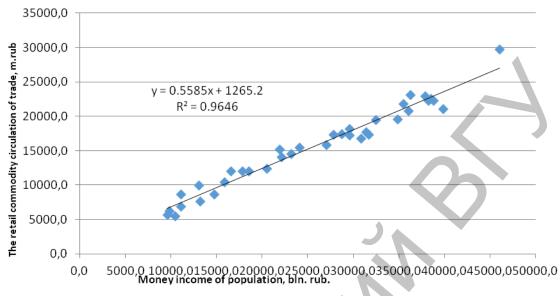
The aim of the study the study based on the retail of goods the money income of the population and the possibility of its forecasting.населения и возможности его прогнозирования.

**Material and methods.** According to the information of the National Bank of the Republic of Belarus in the Bulletin of Banking Statistics [1-3] of the volume of the money incomes of the population and the commodity circulation of the republic for the period from 1 January 2012 to 1 January 2015 are constructed time series (Picture 1). The value of the money income of the population complies with row 1, the value of retail commodity circulation-row 2.



Picture 1 - Time ranks of money incomes of population and retail commodity circulation

**Results and discussion**. Throughout the all considered time period there is a relatively uniform increase not only the money income of the population, but also retail commodity circulation. For the time series of commodity circulation are characterized seasonal peaks (every year in December). Representing the reference data in the form of the correlation field, note, that between the studied parameters there is a strong positive correlation. Let's build a linear trend line, we will find its equation  $y = 0.558 x + 1265 + \varepsilon$  and the magnitude squared  $- R^2 = 0.964$  (Picture 2).



Picture 2- A linear trend line

Consider the linear model of paired regression  $y = \beta_0 + \beta_1 x + \varepsilon$ , where y – the retail commodity circulation of trade, m.rub.; x – money income of population, bln. rub. We find that egressii (progression, regression) looks as:  $\tilde{y} = 0.56 x + 1265$ .

With the help of Fisher criterion we can estimate the quality of the regression equation. Estimated value of Fisher criterion:  $F_{rat} = 927.46$ . At the significance level  $\alpha = 0.05$  we find a table-valued Fisher criterion [4, p.187]:  $F_{cr} = F_{cr} (0.05;1.34) = 4.13$ . As  $F_{rat} > F_{cr}$  therefore an investigated empirical equation of regression is significant.

Statistical significance of linear regression coefficients we will estimate with the help of the Student's t-criterion (table value  $t_{theor} = t_{theor} (0.05; 34) = 2.03$ ), therefore, both of the regression coefficient is statistically significant, as  $t_{\beta_0} = 2.49 > t_{theor}$  is  $t_{\beta_1} = 30.45 > t_{theor}$ 

To assess the adequacy of the model  $e_i = y_i - \tilde{y}_i$ , we find elements of the residual sequence, and then we check, does this specified sequence of a) accidental, b) normally distributed, c) having a zero expectation, d) independent, e) homoskedastic.

by the criterion of peaks (turning points) the value of the a) sequence  $e_i$ , i = 1, ..., 36, is considered a turning point, if  $e_{i-1} < e_i > e_{i+1}$  or  $e_{i-1} > e_i < e_{i+1}$ . The total number of turning points for the residual sequence – p = 25. In 22.6 D 6. Since and = our case р =

 $25 > \overline{p} - 1.96\sqrt{D_p} = 22.7 - 1.96\sqrt{6} = 17.9$ , then with a confidence probability of 95% the hypothesis of residual sequence accept.

b) let's apply the RS-criterion. We calculate values  $R = e_{max} - e_{min} = 5190.44$ ;  $S = \sigma_e = 1115.8$ ; R/S = 4.65;  $\bar{e} = \sum_{i=1}^{n} e_i / n - 115.8$  the sample mean. Tabular interval of R / S criterion [5, p.134]: 3.47 < R/S < 4.89. Since 3.47 < 4.65 < 4.89 the hypothesis about normal distribution of the residual sequence is accepted.

c) by Student's criterion, the estimated value of which  $t = 1.61 \cdot 10^{-14}$ , the table value [4, p.188]:  $t_{\alpha} = 2.04$ . Since  $t < t_{\alpha}$ , the hypothesis about equality to zero of mathematical expectation is accepted.

d) according to the criterion of Durbin - Watson, the calculated value of this criterion: d = 1.62, tabular interval of statistics: 1.35 < d < 1.49. As d = 1.62 > 1.49, so the value of the residual sequence is independent.

e) We use Goldfeld-Quant's test. Let's order the observation by the value of x. We divide the sample into three subsamples. Constructed models of a linear regression for the first and third samples, find the corresponding sums of the squares of deviations residues:  $S_1 = 8927826$ ,  $S_3 = 16959568$  and

the calculated value of F-statistic:  $F_{rat} = \frac{S_3}{S_1} = 1.9$ . Tabulated values Fisher

criterion [4, p.187]:  $F_{cr} = F_{cr} (0.05; 9.9) = 3.18$ . Because of  $F_{rat} < F_{cr}$ , the hypothesis of no heteroscedasticity is adopted.

**Conclusion.** By the result of the study we can conclude that the model of linear regression is adequate, meaningful and accurate. That is, it corresponds to the investigated statistics and can be used for the forecasted targets.

#### Reference list:

- Bulletin of Banking Statistics, 2013. №1 (151) [electronic resource] / Nat. Bank of Belarus. – Mode of access: http://www.nbrb.by/publications/bulletin/bulletin2013\_1.pdf. – Access Date: 19,10,2015.
- Bulletin of Banking Statistics, 2014. №1 (163) [electronic resource] / Nat. Bank of Belarus. – Mode of access: http://www.nbrb.by/publications/bulletin/bulletin2014\_1.pdf. – Access Date: 19.10.2015.
- Bulletin of Banking Statistics, 2015. №1 (175) [electronic resource] / Nat. Bank of Belarus. – Mode of access: http://www.nbrb.by/publications/bulletin/bulletin2015\_1.pdf. -Access Date: 19.10.2015.
- 4. I. Eliseeva, Econometrics / I. Eliseev, T. Kosteeva, S. Kurysheva. M., 2003. 343 p.

# PREDICTION OF GROSS REGIONAL PRODUCT BY MODEL TREND AND SEASONAL VARIATIONS

# A. Slauta, T. Karetskaya

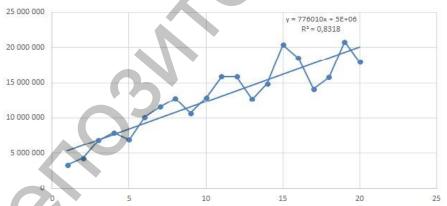
Grodno State Yanka Kupala University, Grodno, Belarus

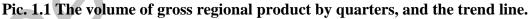
Prediction possible values of attributes of the object under study - one of the main tasks of science. The role of statistical methods is very significant in its solution. The forecast on the basis of the trend and the oscillation is one of these methods. If we'll known how fast and in what direction to change the levels of the trait, then we can find out what value reaches is the level after a certain time.

**Material and methods.** In this paper was used the method of trend and seasonal variations to predict GRP of Grodno region. The purpose of work – to reveal a development pattern of gross regional product and on its basis to carry out forecasting of events for future periods, taking into account the impact of seasonality. In the work to build the model were used operational data of the Main Statistical Office of Grodno region [1].

**Results and discussion.** For the analysis were used quarterly data on GRP of Grodno region for 5 years. They are presented in table 1.1

Then proceed to the identification of the main trends of development, using the analytical method of leveling. The results are shown in pic. 1.1





So, we have the equation of the trend line:  $\bar{y}_t = 77601 \text{o}t + 500000 \text{o}$ .

The graph in pic. 1.1 shows that in this case there is a significant seasonal component which should be measured and taken into account when forecasting. Because the in this case there is a definite trend, the seasonal index will be calculated as the ratio of the actual levels to the levels obtained using the trend equation. Seasonal index for each quarter is averaged over the years by the arithmetic average weighted, where the weights used by the average quarterly levels each year.

$$\bar{I}_{Si} = \frac{\sum_{i} I_{Si} \bar{y}_{i}}{\sum_{i} \bar{y}_{i}}.$$

where  $\bar{I}_{Si}$  – the average index of seasonality for the month or quarter;  $\bar{y}_i$  – the average monthly or quarterly level each year;  $I_{Si}$  – seasonal index for the month or quarter of the same name.

Using this method, we obtain the results shown in table 1.1.

Quarter	GRP	Trend	The average quarterly levels by year	Seasonal index	The average seasonal index	Trend with seasonality
1	3 342 858	5776010		0.579	0.801	4627699
2	4 299 456	6552020	5611634	0.656	0.918	6013125
3	6 872 794	7328030	5011054	0.938	1.123	8229573
4	7 931 428	8104040		0.979	1.026	8318134
5	6 965 187	8880050	10354987	0.784	0.801	7114634
6	10 100 692	9656060		1.046	0.918	8861862
7	11 586 590	10432070		1.111	1.123	11715493
8	12 767 479	11208080		1.139	1.026	11504177
9	10 649 277	11984090		0.889	0.801	9601569
10	12 864 648	12760100	13817865.8	1.008	0.918	11710599
11	15 899 257	13536110	13817803.8	1.175	1.123	15201412
12	15 858 281	14312120		1.108	1.026	14690220
13	12 671 858	15088130		0.840	0.801	12088505
14	14 894 298	15864140	16604676	0.939	0.918	14559335
15	20 357 364	16640150		1.223	1.123	18687332
16	18 495 184	17416160		1.062	1.026	17876264
17	14 122 164	18192170		0.776	0.801	14575440
18	15 792 667	18968180	17156229.2	0.833	0.918	17408072
19	20 778 546	19744190	17156338.3	1.052	1.123	22173252
20	17 931 976	20520200		0.874	1.026	21062307

Table 1.1 – Seasonal index of GRP for 2011–2015 years.

The value of the average seasonal index forms the wave, which can be represented on a graph (pic. 1.2).

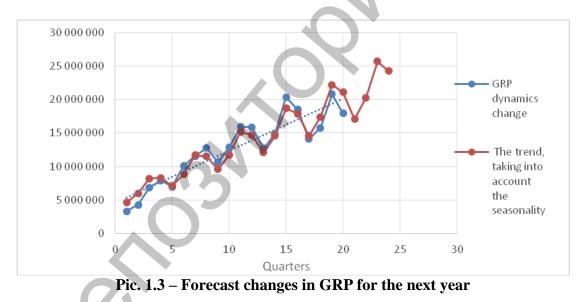
By measuring the size of the seasonal fluctuations, consider them in the trend model, multiplying the value of the equation of the trend to the corresponding average index of seasonality. The result is a model that takes into account the trend and seasonality. Substituting in this model the corresponding indices of seasonality calculated levels of dynamic range taking into account trend and seasonality. The results of the calculations are presented in table 1.2.



Pic. 1.2. Graph seasonal wave

Further, in order to implement forecasting for next year by quarter, we substitute in the equation of the trend, taking into account the seasonality of the following values t from 21 to 24, as forecasting base in this example is 20 levels [2, p. 442].

As can be seen from pic. 1.3 levels obtained from the equation of the trend, taking into account seasonality, located very close to the actual levels. In this case, the identification of patterns is stored.



**Conclusion.** In this work trend-seasonal forecast don't reflect the cyclic component. But it does seem to do a good job of capturing the long-term upward trend and the repeating seasonal patterns.

#### Reference list:

- 1. Operational data on gross regional product [Electronic resource] Access mode: http://grodno.belstat.gov.by/ofitsialnaya-statistika/osnovnye-pokazateli/valovoiregionalnyi-produkt. – Access date: 15.10.2016.
  - Andrew F. Siegel Practical Business Statistics / Andrew F. Siegel . 6th ed., 2012. 436 p.

# WEAK SOLUTION OF RIEMANN-HILBERT TYPE PROBLEM FOR ORTHOGONAL TYPE SYSTEMS IN R<sup>4</sup>

#### N. Solopov

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In this paper we consider a class of elliptic systems orthogonal type of four first order equations with four variables. We study a non-classical boundary value problem for these systems in an unbounded doubly connected special type domain. Formulation of this problem has been investigated B.B. Oshorov for one system of quaternion type in the four-dimensional space [1].

We should note that homogeneous Riemann-Hilbert problem for considered systems has infinite number linearly independent solutions in arbitrary bounded simply connected domain [2]. Moreover, paper [3] proved that for an arbitrary boundary conditions, the corresponding boundary value problem is not regularizable for this systems, i.e. the operator corresponding to the boundary value problem and acting in certain Banach spaces is not Fredholm [4].

The main purpose of this paper is to find correctly formulation of Riemann-Hilbert problem.

Material and methods. Let h > 0, across  $\Omega$  denote domain

$$\Omega = \left\{ x = (x_1, x') \in \mathbf{R}^4 \mid 0 < x_1 < h, x' = (x_2, x_3, x_4) \in \mathbf{R}^3 \right\}.$$

Further, then B(x) – given in domain  $\Omega$  a continuous 4×4 matrix-function,

 $A_1 = E_4$  – unit matrix of the fourth order,  $A_2, A_3, A_4$  – constant real square matrix of the fourth order such that

$$A_k A_j^T + A_j A_k^T = 2\delta_{jk} E_4 \quad (j,k=\overline{1,4}),$$

here the  $\delta_{jk}$  – Kronecker delta.

Definition 1. The operator

$$\Lambda: U \mapsto \sum_{j=1}^{4} A_j \frac{\partial U}{\partial x_j} + BU$$

is called orthogonal type operator in  $\mathbb{R}^4$ , here  $U = (u_1(x), ..., u_4(x))^T - differentiable vector-function.$ 

In this case B = 0 the system  $\Lambda U = 0$  is the four-dimensional analog of the Cauchy-Riemann system. It means that each component

 $u_k(x)$  (k = 1,...,4) arbitrary continuously differentiable solutions is a harmonic functions [5].

Let  $C_{\Lambda}(\Omega)$  be the class of infinitely differentiable vector-functions satisfying the boundary conditions

$$u_1|_{x_1=0} = u_2|_{x_1=h} = u_3|_{\partial\Omega} = u_4|_{\partial\Omega} = 0$$
(1)

and square integrable on  $\Omega$  together with all its derivatives up to the second order. The closure  $C_{\Lambda}(\Omega)$  by norm of Sobolev space  $W_2^1(\Omega)$  [6] is denoted by  $S_{\Lambda}(\Omega)$ .

We introduce space  $S_{\Lambda^*}(\Omega)$ , as the closure the class of infinitely differentiable vector-functions  $V = (v_1(x), ..., v_4(x))^T$  square integrable on  $\Omega$  together with all its derivatives up to the second order and satisfying the boundary conditions to define formal adjoint operator  $\Lambda^*$ 

$$v_1|_{x_1=h} = v_2|_{x_1=0} = v_3|_{\partial\Omega} = v_4|_{\partial\Omega} = 0$$

Then, the operator

$$\Lambda^* := -A_1 \frac{\partial}{\partial x_1} + \sum_{j=2}^4 A_j^T \frac{\partial}{\partial x_j} + B^T$$
(2)

is formal adjoint operator to  $\Lambda$ , i.e. for all functions  $U \in S_{\Lambda}(\Omega)$  and  $V \in S_{\Lambda^*}(\Omega)$  satisfying equality

$$\langle \Lambda U, V \rangle_{L_2(\Omega)} = \langle U, \Lambda^* V \rangle_{L_2(\Omega)}$$

here  $\langle :: \rangle_{L_2(\Omega)}$  – inner product in  $L_2(\Omega)$ .

Riemann-Hilbert type problem. Consider the boundary value problem

$$\Lambda U = F(x) \quad (x \in \Omega) \text{ and } \quad U \in S_{\Lambda}(\Omega).$$
(3)

This problem (3) is called Riemann-Hilbert type problem. Paper [7] proved uniqueness classical solution of this problem.

Let us remark that, if U is classical solution (3), so for all vectorfunctions  $V \in S_{\Lambda^*}(\Omega)$  we have

$$\langle F, V \rangle_{L_2(\Omega)} = \langle U, \Lambda^* V \rangle_{L_2(\Omega)}.$$
 (4)

**Definition 2.** The vector-function  $U \in L_2(\Omega)$  is called weak solution of Riemann-Hilbert type problem (3) if  $\langle F, V \rangle_{L_2(\Omega)} = \langle U, \Lambda^* V \rangle_{L_2(\Omega)}$  for all  $V \in S_{\Lambda^*}(\Omega)$ .

**Theorem 1.** Let  $C = \min\{1/\sqrt{2}, 1/h\}$ , matrix B(x) is continuous in layer  $\overline{\Omega}$ 

and exists  $\delta \in [0, (\sqrt{2} - 1)C]$  such  $||BU||_{L_2(\Omega)} \leq \delta ||U||_{L_2(\Omega)}$  for any  $U \in S_{\Lambda}(\Omega)$ . Then for any  $F \in L_2(\Omega)$  exists a weak solution of Riemann-Hilbert type problem (3).

*Sketch of proof.* From paper [7] it follows that exists positive number  $\alpha$  such that

$$\alpha \left\| V \right\|_{W_{2}^{1}(\Omega)} \leq \left\| \Lambda^{*} V \right\|_{L_{2}(\Omega)}$$

for all  $V \in S_{\Lambda^*}(\Omega)$ . We consider functional  $g(V) \coloneqq \langle F, V \rangle_{L_2(\Omega)}, V \in S_{\Lambda^*}(\Omega)$ , where  $F \in L_2(\Omega)$  is fixed vector-function. Using the Cauchy–Bunyakovsky–Schwarz inequality, we get

$$\left|g\left(V\right)\right| \leq \left\|F\right\|_{L_{2}\left(\Omega\right)} \left\|V\right\|_{L_{2}\left(\Omega\right)} \leq \frac{1}{\alpha} \left\|F\right\|_{L_{2}\left(\Omega\right)} \left\|\Lambda^{*}V\right\|_{L_{2}\left(\Omega\right)}$$

i.e. g is linear bounded functional by  $\Lambda^* V$  from some subspace of  $L_2(\Omega)$ . Due to the Hahn-Banach theorem and the Riesz representation theorem, it follows existence  $U \in L_2(\Omega)$ , satisfying (4). This completes the proof of Theorem.

**Conclusion.** In this paper we have been proved the existence of a weak solution of Riemann-Hilbert type problem a class of elliptic systems orthogonal type in  $\mathbb{R}^4$ .

#### Reference list:

- Oshorov B.B. About one four-dimensional analog of the Cauchy-Riemann equations / B.B. Oshorov // Non-classical equations of mathematical physics, 2007. – P. 212–220.
- Vinogradov V.S. Boundary value problem for a pseudo-symmetric systems / V.S. Vinogradov // Differential equations, 1985. – V. 21. – № 1. – P. 161–163.
- 3. Basik A.I. Boundary value problems for elliptic pseudo symmetric first order systems in R<sup>4</sup> / A.I. Basik, A.T. Uss // Differential equations, 2003. V. 38, № 3. P. 410–412.
- Agranovich, M.S. Elliptic singular integro-differential operators / M.S. Agranovich // UMN, 1965. – V. 20, – № 5. – P. 3–120.
- Shevchenko V.I. Homotopy classification of Hilbert boundary value problems for holomorphic vector / V.I. Shevchenko // Dokl. Akad. Nauk. SSSR, 1971. – V. 201. – № 5. – P. 1067–1069.
- Uss, A.T. Homotopy classification of three- and four-dimensional analogs Cauchy-Riemann equation / A.T. Uss // Differential equations, 2004. – V. 40. – №8. – P. 1118– 1125.
- 7. Basik A.I. A priori estimates of the norm of an elliptic operator of orthogonal type in R<sup>4</sup> / A.I. Basik, N.V. Solopov // Mathematical modeling and new educational technology in mathematics: a coll. of rep. / BrSU – Brest : BrSU, 2015. – P. 3–9.

# ANALYSIS FEATURES ASP.NET CORE FRAMEWORK FOR THE CREATION OF WEB-APPLICATIONS

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The development of information technology is not standing still. Every year, dozens of new frameworks, additions, updates are available to ease development and combining of the different components of a complex software project. Modern highly qualified software developer should be aware of the latest developments in IT, and also be able to quickly learn and apply them in practice. However, the choice of suitable technology should be based not only on the personal preferences of the developer, but also on the analysis of authoritative sources and experience of using of various approaches.

Purpose of this article is revealing the features of the popular frameworks on the .NET platform, to find out their strengths and weaknesses.

**Material and methods.** During the research there were used articles from Internet-sites, science articles and literary sources. To achieve this goal we used next methods: descriptive, statistical, comparative.

**Results and discussion.** In an analysis result of the last developments in the field of web programming the most popular frameworks on the .NET platform for development of web applications were chosen by me: ASP.NET 4 and ASP.NET Core 1.0. These technologies have a number of advantages, such as the increased flexibility, separation of responsibility, tough control over HTML and HTTP, availability of simple elements of CSS styles.

The study of technology on the .NET platform, is engaged in an experienced professional in the field of information technologies Adam Freeman. His most famous book «Pro ASP.NET Core MVC» [1] and «Pro ASP.NET MVC 4" [2] are in great demand among developers worldwide.

The framework of ASP.NET Core represents the last development of the Microsoft company and is intended for different creation of web applications. It can be both the regular websites, and large web portals and web services. According to the official documentation Microsoft [3]: "ASP.NET Core is a new open-source and cross-platform framework for building modern cloud based internet connected applications, such as web apps, IoT (Internet of Things) applications and mobile backends ".

ASP.NET 4 technology has been released in 2013 and is a more mature technology. It tested by time, released in final version and is available today.

The main difference between these technologies from previous versions is that the framework is based on .NET Core - a cross-platform environment that can be deployed not only on the Windows operating system, and Mac OS X and Linux. For developers who prefer to use the operating system Mac OS X and the Linux, innovation is very important. To deploy a web-based application can be used as a traditional IIS server and cross-platform Kestrel.

When Microsoft refused Web Forms technology, developers of the framework joined some functional Web Form with the MVC and Web Pages into a single technology. The well-known expert in the developer community ASP Stephen Walther noted one of the reasons for the refusal in his blog: « Web Forms apps cannot take advantage of any of the cool new features of ASP.NET 5 » [4].

The framework ASP.NET Core stopped support AJAX helpers. If earlier for creating AJAX requests was necessary to create a form with AJAX tag and use partial representation, now AJAX requests are fully controlled by JavaScript scripts and JQuery. This update allows you to make the development more universal.

It should be noted a new frontend feature called Tag Helpers. "Tag Helpers is the one feature that might have the biggest impact on the way that you create your views in an ASP.NET MVC application. Tag Helpers are a better alternative to using traditional MVC helpers." [2] – marks in the blog Stephen Walther. Tag helpers use in representations and they look as normal HTML tags, however in case of operation of application they are processed on server side. They can be understood as more convenient analog of HTML helpers. In a figure 1 the code sample with use of Tag helpers and without it.

```
//using HTML-helper
<div>
    @Html.LabelFor(m => m.Name)
    @Html.EditorFor(m => m.Name)
</div>
//using TAG-helper
<div>
    <label asp-for="Name"></label>
    <input type="text" asp-for="Name" />
k/div>
```

Figure 1 – The example of using Tag helpers

The important updating, according to experts, is the inclusion of Visual Studio 2015 templates to work with one of the most famous client framework for building a Single Page Application - Angular JS 2. In addition, added a new front-size element View Companent, integrated tools support Bower, Grunt, which enable the JavaScript scripts, and more.

In connection with the upgrade, you can highlight some of the trends of development of .NET technology. You may notice that Microsoft company is committed to a universal, easy configuration and modular applications, the logic is gradually transferred from the controller to the presentation, reduced dependence on the development environment.

**Conclusion.** In article features of popular frameworks on the .NET platform are revealed. The considered innovations allow to solve a problem of the choice of a platform for development of web applications. Now not many IT companies are ready to make investments in ASP.NET Core technology because of its instability and fixed renewability. However experts in the field of IT assure that ASP.NET Core firmly will take the place and will soon replace ASP.NET 4 technology.

#### Reference list:

- 1. Freeman, Adam. Pro ASP. NET Core MVC. Apress, 2016. 1018 p.
- 2. Freeman A., Sanderson S. Pro Asp.net Mvc 4. Apress, 2012. 698 p.
- 3. Introduction to ASP.NET Core [Electronic resource] Mode of access: <u>https://docs.asp.net/en/latest/intro.html</u>. Date of access: 27.10.2016.
- Top 10 Changes in ASP.NET 5 and MVC 6 [Electronic resource] Mode of access: <u>http://stephenwalther.com/archive/2015/02/24/top-10-changes-in-asp-net-5-and-mvc-6</u>. – Date of access: 27.10.2016.

# ABOUT WHOLE POSITIVE SOLUTION OF MATRIX EQUATION $X^n = A$ FOR SECOND-ORDER MATRICES

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The assigned task is very important for solving a wide range of problems related to modeling economic, social processes [1, p. 189]. The aim of this work is to solve the problem of finding positive integer solutions of nonlinear matrix equation  $X^n = A$  for matrices of the second order in the case of positive whole n.

**Material and methods.** In this work we study the nonlinear matrix equation  $X^n = A$  where A, X are matrices of the second order, n is a natural number. The matrix equation was represented in the form of a system of four nonlinear equations that was then solved by analytical methods.

**Results and discussion.** Consider the case when both diagonal elements of the matrix-root X is not equal to zero, and the off-diagonal elements are equal, i.e. the following nonlinear matrix equation:

$$\begin{pmatrix} a & b \\ b & d \end{pmatrix}^{n} = \begin{pmatrix} K & L \\ M & N \end{pmatrix}$$
(1)

When n = 3, we have the following system of nonlinear equations:

$$a^{3} + 2ab^{2} + b^{2}d = K,$$
  

$$b^{3} + a^{2}b + bd^{2} + abd = L,$$
  

$$b^{3} + a^{2}b + bd^{2} + abd = L,$$
  

$$ab^{2} + 2b^{2}d + d^{3} = N.$$
(2)

Solving the system (2), we proceed from the fact that the value of d is known. Therefore, it is necessary to estimate d and solve the resulting system of equations (2) for each of the possible values. Because d can only be a natural number, for the case n = 3, the following assessment takes place:  $1 \le d \le \sqrt[3]{N-3}$ .

To solve the system of equations (2), subtract the first equation from the fourth; multiple the second equation by a/b, the third equation by d/b and then subtract the second equation from the third. In the end, we get the following system:

$$\begin{cases} a^{3} - d^{3} + ab^{2} - b^{2}d = K - N, \\ a^{3} - d^{3} + ab^{2} - b^{2}d = L\frac{a}{b} - L\frac{d}{b}. \end{cases}$$
(3)

The left parts of equations of system (3) are equal, then equal and right parts, i.e.  $K - N = L\frac{a}{b} - L\frac{d}{b}$ . From the last equation, we get the expression, that relates the variables a and b: b = p(a - d), where  $p = \frac{L}{K - N}$ . The relation between the variables b and c has the following form:  $\frac{b}{c} = \frac{L}{M}$ .

Substituting the expression, that relate the variables a and b, in the fourth equation of system (2), we get the following equation:

$$\alpha a^3 + \beta a + \gamma = 0 \tag{4}$$

$$\gamma = 2p^2 d^3 + d^3 - N.$$

where  $\alpha = p^2$ ,  $\beta = -3p^2d^2$ ,  $\gamma = 2p^2d^3 + d^3 - N$ . Consider the case when both diagonal element not equal to zero, and the off-diagonal elements are not equal, i.e. the following nonlinear matrix

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix}^{n} = \begin{pmatrix} K & L \\ M & N \end{pmatrix}$$
(5)

When n = 3, we have the following system of nonlinear equations:

equation:

$$a^{3} + 2abc + bcd = K,$$

$$a^{2}b + b^{2}c + abd + bd^{2} = L,$$

$$a^{2}c + bc^{2} + acd + cd^{2} = M,$$

$$d^{3} + 2bcd + abc = N.$$
(6)

Solving the system (6), we proceed from the fact that the value of d is known. Therefore, it is necessary to estimate d and solve the resulting system of equations (6) for each of the possible values. Because d can only be a natural number, for the case n = 3, the following assessment takes place:  $1 \le d \le \sqrt[3]{N-3}$ .

To solve the system of equations (6), subtract the first equation from the fourth; multiple the second equation by a/b, the third equation by d/c and then subtract the second equation from the third. In the end, we get the following system: 

$$\begin{cases} a^{3} - d^{3} + abc - bcd = K - N, \\ a^{3} - d^{3} + abc - bcd = L\frac{a}{b} - M\frac{d}{c}. \end{cases}$$
(7)

The left parts of equations of system (7) are equal, then equal and right

parts, i.e.  $K - N = L\frac{a}{b} - M\frac{d}{c}$ . From the last equation, we get the expression, that relates the variables a and c: c = p(a-d), where  $p = \frac{M}{K-N}$ . The relation between the variables b and c has the following form:  $\frac{b}{c} = \frac{L}{M}$ .

Substituting the expression, that relate the variables a and b, in the fourth equation of system (6), we get the following equation:

$$\alpha c^3 + \beta c^2 + \gamma = 0 \tag{8}$$

where  $\alpha = \frac{L}{pM}$ ,  $\beta = \frac{3Ld}{M}$ ,  $\gamma = d^3 - N$ . Example. Let  $A = \begin{pmatrix} 37 & 54 \\ 81 & 118 \end{pmatrix}$ . For d we have the following estimate:

 $1 \le d \le 4$ . If d = 1, the coefficients included in equation (8) take the following values:  $\alpha = -0.67$ ,  $\beta = 2$ ,  $\gamma = -117$ . Equation with these coefficients has a valid non-integer and two complex roots. If d = 2, the coefficients included in equation (8) take the following values:  $\alpha = -0, 67, \beta = 4, \gamma = -110$ . Equation with these coefficients has a valid non-integer, two complex root. If d = 3, the coefficients included in equation (8) take the following values:  $\alpha = -0.67, \beta = 6, \gamma = -91$ . Equation with these coefficients has a valid noninteger and two complex roots. If d = 4, the coefficients included in equation (8) take the following values:  $\alpha = -0,67$ ,  $\beta = 8$ ,  $\gamma = -54$ . Equation with these coefficients has three valid roots, two of which are non-integer, and the third

is equal to three. Therefore, the desired matrix has the form:  $X = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$ .

We give without proof the following theorems.

Theorem 1. In the general case, for any natural n the following relationship between variables b and c takes place:  $b = \frac{L}{N}c$ .

Theorem 2. In the general case, for any natural n the following relationship between variables c and a takes place:  $c = \frac{M(a-d)}{K-N}$ . (Variable d

in this case is fixed).

**Conclusion.** In the study, it was shown that it is possible to use analytical methods to solve the problem of finding positive integer solutions of matrix equation  $X^n = A$  for the matrices of the second order in the case of natural n. The results, presented in the paper, can also be used for finding the positive roots of second-order matrices for n > 3.

#### Reference list:

1. Busniuk, N. N. Mathematical modeling / N. N. Busniuk, A. A. Chernyak. – Minsk: Belarus, 2014. – 214 p.

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

## THE STUDY OF THE WAYS OF WATERCOURSES CONTAMINATION NEAR INDUSTRIAL AREAS OF VITEBSK REGION

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There is always the risk of accidents and emergencies on objects of industrial complex. The level of pollution in industrial zones remains high and leads to the formation of sustainable local areas of contamination, despite the applied advanced technology. At the same time, pollutants are transferred into water bodies under the influence of natural and anthropogenic factors. The contamination of watercourses is especially dangerous, because they can be sources of pollution of adjoining territories. Vitebsk region is a developed industrial region, where there are many organizations or manufactures, which use oil and oil products, which are potential pollutants. The level of technogenic impact on the environment increases with increasing level of industrial development, resulting in pollution of natural objects. This is reflected in the pollution of natural objects.

The aim of this work is the analytical assessment of the impact of industrial facilities on the water pollution in the Vitebsk region.

**Material and methods.** Materials of the State water cadastre were used for work, including summary data about water resources and their quality in previous years. We used statistical and comparative method of research.

**Results and discussion.** There is more than 5,1 thousand rivers and streams with a total length about 17 thousand km within the region. 5 large rivers flows on the territory of the region: the Western Dvina and Dniepr – transit, Lovat, Berezina, Viliya – heads. The density of the river system ranges from 0,26 km/km<sup>2</sup> in the basin of the Dniepr to 0,52 km/km<sup>2</sup> in the basin of the Western Dvina, averaging about 0,45 km/km<sup>2</sup>, which is slightly higher than for the country (0,44 km/km<sup>2</sup>) [1].

The total average annual flow of the rivers of the Vitebsk region is 18,1 km<sup>3</sup>. Local water formation amount 7,3 km<sup>3</sup> from total volume, others come from neighboring territories. Western Dvina (13,9 km<sup>3</sup>) and the Dniepr (4 km<sup>3</sup>) transfer the main part of the flow outside the region. The average annual runoff depth for the most part of the Vitebsk region ranges from 180 to 200 mm, the runoff is between 6,5 to 7,5 l/s from 1 km<sup>2</sup>. Low values of annual runoff depth are typical for the watershed of Luchosa, Ulla, Disna (175-185mm), high – for the watershed

of the Obol, Polota, Drysa, Svolna (215-225mm). The maximum flow is formed in the South-West of the region (slopes of Sventsiany ridges, the basin of the Viliya river). The average annual runoff depth for that area is 235 mm, the runoff rate is 8.5 l/s from 1 km<sup>2</sup> [1].

Statistical data on the concentrations of contaminants at points of hydrochemical observations above and below locality allow to trace the dynamics of change of this indicator during the last years, and also identify the sources of pollution of watercourses. Mean concentrations of petroleum products the two major rivers of the region (the Western Dvina and the Dniepr) have tended to decrease and these values are constant in recent years. The Western Dvina river has the following characteristics on concentrations of petroleum products: total mean annual  $-0,03 \text{ mg/dm}^3$ ; the maximum in 2005  $-0,057 \text{ mg/dm}^3$ ; the minimum in 2014  $-0,01 \text{ mg/dm}^3$ . The Dniepr river has the following characteristics of petroleum products: total mean annual  $-0,068 \text{ mg/dm}^3$ ; the maximum in 2003  $-0,32 \text{ mg/dm}^3$ , minimum in 2002  $-0,01 \text{ mg/dm}^3$  [2].

Potential source of hydrocarbon contamination of water bodies is the fuel and energy complex. The main feature of FEC existence in the region is a complete lack of own mineral resources except for a peat. However, peat in the past decade almost not used to generate electricity, so it can be argued that FEC works wholly on imported raw materials – oil, natural gas and coal.

It should take into account the pollution of river water surface flushing due to diffuse sources of contamination. Their dynamics and the total number is largely determined by the size of the catchment area and the structure of underlying surfaces (share of agricultural land, degree of urbanization, forest density, types the use of land), as well a feature of human activity.

**Conclusion.** Research shows that the situation regarding the discharge of pollutants into water bodies has began to stabilize since 2006. Dniepr river exceeds by the level of pollution of the Western Dvina river on the territory of Vitebsk region, which is reflected in the increase of concentration of pollutants in the sites of the rivers downstream the cities in connection with the development of the industrial sector, with accidental discharges of pollutants into water objects, with transboundary transfer of pollutants by watercourse (marked the flow of pollutants to a high degree from the Russian Federation in 2003), in connection with the transfer of pollutants from surface runoff from the land surface of the watershed and concentrated discharges (including wastewater).

#### Reference list:

- 1. Bobrik, M.Y., Gavrilchik, Z.S., Galkin, A.N. etc. Physical geography of Vitebsk region: Textbook / M.Y. Bobryk, Z.S. Gavrilchik, A.N. Galkin etc. Vitebsk: Publishing house of "VSU named after P. M. Masherov", 2004.
- 2. State water cadastre of the Republic of Belarus. The annual data about quality of surface waters. The river basins of the Republic of Belarus. Mn., 2016.

# SPECIES COMPOSITION DENDROFLORA VITEBSK BOTANICAL GARDEN STATE UNIVERSITY

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Botanic Gardens occupy one of the first places in the implementation of the objectives of the Convention on Biological Diversity. Botanical Garden called organization that has documented collections of living plants and use them for research, conservation, display and educational purposes. In the botanical garden are scientific - research work. We study the rhythm of seasonal development of plants, plant hardiness, non-specific plant resistance, biological characteristics of seed germination. Summing up the results of introduction of plants tested according to visual observations and experiments.

The purpose of the work - the study of the species composition of trees and shrubs of the botanical garden of the Vitebsk State University.

**Material and methods.** The object of the study were the trees and shrubs of the botanical garden.

In a study of the territory of arboretum botanical garden, it carried out a complete count of the number of specimens of woody plants and determined the species composition of families.

The basic methods of research and collection of materials were routing method, the herbarium collection, keeping accounts, which included a description of the composition of woody plants, the method of photography. We have drawn up a schematic map of woody plants growing in the Botanical Garden. To process the data in the study used statistical package in Exel.

**Results and discussion.** Among the woody plants of the Vitebsk Botanical Garden in the ratio of 7: 1 deciduous species (279 taxa) prevail over coniferous (35 taxa). Collection of trees and shrubs include plants belonging to 103 genera of 38 families. Among the life forms: -152 trees, shrubs -143 vines -10 shrubs -9. Ratio of exotic species and Aboriginal 13: 1 [1, p.19].

The largest number of representatives refers to the following families: Cupressaceae - and Pinaceae - 17 taxa, Aceraceae - 10, Berberidaceae - 12, Caprifoliaceae and Ericaceae - 14, Fabaceae - 13, Oleaceae - 12, Rosaceae - 99, Salicaceae - 16, Saxifragaceae - 26 taxa. Full of other genera are represented: Acer - 10, Berberis and Cotoneaser - 11, Ribes - 15, Rubus - 16 species.

The following geographic areas are represented in the collection: Europe – 99 taxa (34%), the Caucasus – 46 (15,8%), Siberia, – 41 (14%), the Far East – 49 (16,8%), Japan – 27 (9,3%), South-east and South Asia – 6 (2%), and Central Asia – 28 (9,6%), North America – 63 (21,6%) of the taxon.

If you deposit collection currently priority is the family of *Ericaceae*, and genera *Berberis*, *Cotoneaster*, *Crataegus*, *Sorbus*.

Most species are completely acclimated to the new conditions and even tolerate harsh winters with little snow easily. The collection arboretum most hardy were: Armeniaca manshurica, Phellodendron amurense, Cerasus pensylvanica, Acer saccharimun, Syringa josikae. These plants are not observed damage frost shoots and buds. They flower and fruit annually. Less winter-hardy: Cerasus tomentosa, Ptelea trifoliata, Robinia preudoacacia, Ligustrina amurensis, Forsythia europaea, Morus alba. These plants in the harsh winter frosts observed partial damage of annual increments. Most do not tolerate the winter Amorrpha fruticosa, Buddleia davidii, Deietzia scabra [2, p. 15]. These plants annually, almost completely frosted over-year growth, and in severe winters the plants to freeze the snow level. Frosting shoots leads to the death of flower buds, that is negative on plant flowering, leading to the loss of decorative effect.

In recent years, the garden more attention to the introduction of shrubs. Shrubs are more ductile than the trees and easier to adapt to the harsh conditions of the Vitebsk region. The special is their value in the fact that many species bloom at different times and by adjusting the composition can be formed to ensure the continuity of flowering from early spring until paniculata. Pass the test: Weigela hybrida, Hydrangea autumn. Rhododendron dahuricum, Spiraea x arguta, Spiraea × vanhouttea. Forsythia europaea – views recommended garden of continuous bloom in Belarus. We have been tested and have shown complete adaptability to new conditions: Chaenomeles maulei, Amyhdslus nana, Syringa josikae, Syringa amurensis, Spiraea japonica.

**Conclusion.** As a result of the inventory of the collection of woody flora of the Botanical Garden of VSU. Data collection provided for the training sessions of the course "dendrology" in the biological faculty of VSU. The results obtained will be used for the preparation of tours of the garden and arboretum to update the site.

#### Reference list:

- List of collections of living plants of the Botanical Garden on the field during 2009. Issue №2 amended and supplemented. / Comp.: Y.I. Vysotsky, I.M. Morozov, V.L. Volkov. Ed. 2nd, Revised. and ext. –Vitebsk, 2009. – 43.
- Vysotsky, Y.I. Botanical Garden of PM Vitebsk State University Masherov / Y.I. Vysotsky, I.M. Morozov, V.L. Volkov. – Vitebsk: Publisher EE "VSU them. PM Masherova", 2004. – 40 p.

# FEATURES OF RELIGIOUS TOURISM IN THE VITEBSK REGION

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A visiting to the holy places have long constituted one of the most important and revered traditions of the Slavic people is inextricably linked to the very essence of Christian doctrine. Currently, religious tourism is not only a sacred character, but also informative.

The population is increasing the need for spiritual values, increased interest in religious monuments of culture and life of the Church, particularly the monasteries became important centers of spiritual rebirth. Religion, penetrating ever deeper into social relations, opens up new horizons for tourism exchanges [1, p. 156].

Aim of research - to determine the features of the development of religious tourism in the Vitebsk region, to determine its potential in the infrastructure of the Republic of Belarus.

Material and methods. The basis of the study were the materials collected during field work, interviews with priests of the Roman Catholic Church, as well as materials science and reference books, research papers T.T. Christov, A.Y. Alexandrova, B.C. Senin, A.F.Trishina, A.V. Mironov and others. In the study, we used the following methods: a systematic structural, mapping, survey, historical, comparative geographical.

**Results and discussion.** In the post-Soviet period, there was a revival of Christianity in Belarus and many other Christian countries, in connection with which the increased role and popularity of visiting various holy places, the so-called pilgrimages. The most important components of religious tourism are tourism excursion, tourism focus and type of pilgrimage. The objects of tourist attraction are the holy places and religions centers.

At the present stage is especially significant role of religion in the Obunity of the Slavic peoples, caught up in the last few decades separated. The role of religious tourism in this world can not be overestimated.

The Republic of Belarus has a unique place, which over time are becoming increasingly popular among the faithful and tourists.

Religious buildings, such as churches represent a substantial reason to visit this or that region. Development of religious tourism in the form of a pilgrimage tour or the other-ism is a powerful factor in the development of tourist areas of the country [3, 201].

Vitebsk region in terms of religious tourism is little known to tourists, and therefore, the need to explore opportunities in the region for the development of this type of tourism.

Tourism resources of the Vitebsk region for the development of religious tourism, presents a number of well-known cultural - historical sites.

Tourism resources are clearly linked to the territory, and their use implies a corresponding territorial organization of tourist facilities. Vitebsk region, especially its western region, located at the crossroads of Western and Eastern cultures. On its territory live more than 1,000 years of Christian culture traditions that define spirituality and mentality of the people, the well-known Belarusian tolerance towards other peoples, their language, faith and cultural traditions. In a single channel merge expressive national and religious (Orthodoxy, Catholicism, Protestantism, Judaism, Old Believers, and others.) flows. In Vitebsk region registered 17 religious denominations, united in nearly 500 communities. Each of the denominations established spiritual traditions and temples, many of which are masterpieces of sacred architecture and part of the golden fund of the culture of the people [4].

Due to the nature of its geopolitical position Vitebsk region has often been the scene of military operations, which explains the low degree of preservation of historical and cultural heritage. Nevertheless, the area has significant cultural – historical potential and is a special spiritual – cultural region. On the territory of Vitebsk region accounted for more than 17, 5 thousand. Historical and cultural monuments, of which more than 3.5 thousand are of national importance, and the objects and memorial sites are of international interest. Saving capacity of traditional material and spiritual culture is a prerequisite for the creation of pilgrimage tours for local and foreign visitors [4].

Tourism resources of the Vitebsk region for the development of religious tourism presents, a number of well-known cultural – historical sites. Tourism resources are clearly linked to the territory, and their use implies a corresponding territorial organization of tourist facilities.

The tourism potential of the cultural - historical resources of the Vitebsk region has features that objectively affect the development of the territorial organization of religious tourism. Thus, religious tourism objects – the temples reflect the identity of the region, and some of them have become the hallmark of the Vitebsk region.

Objects tourist-tour show in Vitebsk region have significant cognitive value, but do not use widespread abroad advanced animation technologies create a tourism product. Thus, in general, natural recreation - resource potential as a factor in the competitiveness of the tourist complex in Vitebsk region deserves a fairly high scores, and the main task is to improve the efficiency of its use [2, p. 9].

Along with the spiritual life, in the parishes have always developed the cultural life of the local population, which is of interest not only for believers, but also for ordinary tourists. This, as a rule, festivals, concerts, exhibitions, seminars, thematic meetings for intellectuals, many of which are organized in cooperation with local authorities, in particular with the Department of Culture. Carrying out these activities promotes and advertises the local region

on the tourist market, which leads to an increase in revenues in the areas of food, accommodation and trade [3, p. 122].

**Conclusion.** It should be emphasized that the main reason for the backlog of Belarus, Vitebsk region in particular, in the field of international tourism is not the low quality of tourist resources and their inefficient use and lack of advertising and information support.

Currently, this type of tourism is at the stage of nucleation, religious tourism objects in the Vitebsk region only to acquire fame not only in Belarus, but also abroad. To religious tourism in the Vitebsk region continued its dynamic development requires the creation of high-quality tourism product in the form of advertising of tourist facilities, ready maps and routes, as well as the necessary infrastructure development and modernization of the food and accommodation in the region.

#### Reference list:

- 1. Aleksandrov A.Y. International tourism / A.Y. Alexandrov. M.: Aspekt Press, 2001. 464 p.
- 2. Pirozhnik, I.I., Tarasenok, AI Formation of spatial tourism base in Belarus: the combination of environmental and recreational functions of specialized areas / II Pirozhnik, AI Tarasenok // Scientific production journal Earth Belarus. 2005. –№ 2. 26 p.
- 3. Christov, T.T. Religious tourism / TT Christ M.: Academy, 2003. 287 p.
- 4. What to look for in Belarus. [Electronic resource]. Access: http://minskdigitals.narod.ru.

# CONTENT OF PHENOLIC CONNECTIONS IN VEGETATIVE AND GENERATIVE BODIES OF EARLY-FLOWERING PLANTS

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In an organism of plants there is own antioxidant system for protection against surplus of free radicals. The antioxidant system of protection includes fermental and non-enzymatic components. The non-enzymatic antioxidant system includes: vitamins C, E,  $\beta$ -carotene, selenium, bioflavonoids [1]. The main orientation of their action is connected with protection of proteins, nucleinic acids, polysaccharides, and also biomembranes against oxidizing destruction at free radical processes. Formation of phenolic connections is one of characteristics of a plant cell. Phenolic connections are a part of antioxidant system and have high reactionary ability and variety of biological properties.

The work purpose – to determine the content of phenolic connections in vegetative and generative bodies of early-flowering plants.

Material and methods. As a material of a research are early-flowering plants a *Allium ursinum*, *Allium schoenoprasum*, *Prhmula vŭris* Samples of

plants were selected from populations, growing in the conditions of a botanical garden of VSU of P.M. Masherov, a forestry of d. Kratsevichi Borisov district and a forestry Vitebsk. The research of maintenance of the sum of phenolic connections was conducted in vegetative and generative bodies of early-flowering plants natural, the introdutsionnykh and the introdutsionno-cultivated populations. The technique of determination of the sum of phenolic connections is based on interaction of spirit extract of vegetable raw materials with Folin-Chiokalteu's reactant in the presence of 10% of solution of a carbonate of sodium. The optical density of the received solution is measured in 15 minutes of keeping in the dark place at the wavelength of 720 nanometers against  $H_2O$ . The maintenance of the sum of phenolic connections is expressed as a percentage in terms of gallovy acid in absolutely dry raw materials [2].

Mathematical processing of the received results was carried out by methods of parametrical and nonparametric statistics with use of a package of the statistical Microsoft Excel 2003, STATISTICA 6.0 programs.

**Results and discussion.** Follows from table 1 that the largest content of phenolic connections was observed in leaves of *Allium ursinum* and *Allium schoenoprasum*, at a *Prhmula vŭris* the largest content of this indicator was observed in stalks.

Table 1 – The maintenance of the sum of phenolic connections of mg/g of fresh weight in vegetative and generative bodies of early-flowering plants  $(M\pm m)$ 

(111=111)				
Vegetable	Bodyof	GroundCollecting		
object	a plant	Botanical garden	Forestarea	Forestry
		(Vitebsk)	(Borisovsky district)	(Vitebsk)
Allium ursinum	Leaves	$22,99\pm3,73^{6}$	$20,60\pm2,70^{6}$	$14,26\pm4,79^{6}$
	Stalks	$18,85\pm1,31^{6}$	$15,36\pm4,31^{6}$	$15,38\pm3,15^{6}$
	Roots	$12,61\pm1,92^{1,2,6}$	$11,94\pm0,80^{1,2,6}$	$14,55\pm0,54^{1,2,6}$
Бllium	Leaves	$15,39\pm2,01^{1,6}$	$19,76\pm1,30^{1,6}$	$18,08\pm3,35^{1,6}$
schoenoprбsum	Stalks	$13,04\pm2,03^{4,6}$	$14,57\pm1,20^{4,6}$	$12,45\pm1,92^{4,6}$
	Roots	$12,39\pm2,08^{3,5,6}$	$12,47\pm1,34^{3,5,6}$	$10,37\pm1,87^{3,5,6}$
Prнmula vŭris	Flowers	30,01±2,62	33,79±2,48	32,98±2,52
	Leaves	$34,51\pm3,03^{1,6}$	$37,73\pm2,82^{1,6}$	$38,72\pm1,56^{1,6}$
	Stalks	$49,62\pm4,80^{2,5,6}$	$49,67\pm2,07^{2,5,6}$	$50,32\pm2,08^{2,5,6}$

The note  $-{}^{1}P < 0.05$  in comparison with leaves of Allium ursinum;  ${}^{2}P < 0.05$  in comparison with stalks of a Allium ursinum;  ${}^{3}P < 0.05$  in comparison with roots of a Allium ursinum;  ${}^{4}P < 0.05$  in comparison with leaves of an Allium schoenoprasum;  ${}^{5}P < 0.05$  in comparison with stalks of an Allium schoenoprasum;  ${}^{6}P < 0.05$  in comparison with flowers of a Prhmula vũris.

By comparison of the obtained data (table 1) on the maintenance of flavonoids in various vegetative bodies of early-flowering plants statistically significant results are received when comparing leaves of a *Allium ursinum* with roots of a *Allium ursinum* in leaves the maintenance of this index is 1,8

times more larger), with leaves of an *Ellium schoenoprósum* and leaves of a *Prhmula vŭris* (in leaves of a *Prhmula vŭris* the content of phenolic connections is 2,2 times more); when comparing content of phenolic connections in roots of a *Allium ursinum* with roots of an *Ellium schoenoprósum* – essential statistical distinctions are not revealed.

**Conclusion**. Content of phenolic connections in early-flowering plants practically does not differ depending on the place of their growth, but depends on type of populations and body of plants. Change the content of phenolic connections is the characteristic of structurally functional adaptations of plants. Stalks of a *Prumula vũris* contain the greatest number of phenolic connections. The least quantity contains in roots of plants. For an *Allium ursinum* and an *Bllium schoenoprósum* the largest content of phenolic connections is noted in leaves. This index in populations of different types of plants has statistically significant differences, and can serve as characteristics of adaptation opportunities of a look, assessment of a potential possibility of a plant to resist to unstable environmental conditions, the characteristic of weather in early spring.

#### Reference list:

- 1. Veretenniko, A. V. Fiziologiya of plants / A.V. Veretennikov. M.: Academic Project, 2006. 480 p.
- 2. Ilkun, G. M. Pollutants of the atmosphere and plant / G.M. Ilkun. Kiev: Naukova thought, 2008. 246 p.

# ECOLOGICAL AND FAUNISTIC TO THE COMMUNITY OF GROUND BEETLES (COLEOPTERA, CARABIDAE) ON THE BANKS OF WATERCOURSES (VITEBSK SITY)

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Ground beetles excellent indicators of the environment, and If you examine the features of ground beetle communities in the territory of biotopes adjacent to the rivers West Dvina and Vitba and creeks to the Danube and Gapeev can to assess the overall ecological status of the studied ecosystems. In addition, in the near future it is planned construction of the Vitebsk hydroelectric power station [2], which will lead to changes in water level, and as a result, changes will occur in the structure of the coastal communities of ground beetles, so it is important to make a study exactly now.

The purpose of this study was to: identify the species composition and ecological characteristics of ground beetle banks of rivers West Dvina and Vitba and streams Gapeev and Danube within the city of Vitebsk.

**Material and methods**. For catching Coleoptera were used Barber soil traps with 9% acetic acid. Setting and checking the traps carried out in the period from 01.08.2014 on 09.29.2014 and 01.08.2015 on 30.09.2015 year. For the study was determined 7 biotopes. Biotope number one is located above the confluence of the mainstream of the Western Dvina riverbed Vitba, but biotope number two - below. To compare the the communities of ground beetles shores of Vitba was determined biotope number three with the most anthropogenic modification of the biotope, and four biotope with the least anthropogenic modification. Fifth biotope is localize on the coasts of the creek Danube. Sixth and seventh biotopes is located on the coasts of the creek Gapeev.

To measure the extent of biodiversity in the biotopes studied, as well as to assess the disturbance biocenosis was used index of Shannon - Weaver (H) and index of Simpson (C).

**Results and discussion**. In total, for the whole period of the study caught 256 beetles of the family Carabidae represented 15 genera comprising and 31 species. The most frequent species of the genera *Pterostichus* (6 species), *Calathus, Carabus, Harpalus, Nebria* (3 species), 2 species of the genera *Agonum* and *Chlaenius*. Registered few species from the genera *Amara, Anisodactylus, Bembidion, Ophonus, Platynus, Stomis* and *Loricera*.

Index of Simpson has a maximum value in the fifth biotope (0.71) and the smallest in the second biotope (0.13). Index of Shannon – Weaver is maximum in the fifth biotope (2.68), while the lowest index value in the seventh biotope (1.59).

After analyzing, the collected beetles identified 9 groups of areas: Trans Palearctic, West-Central Palaearctic, Western Palearctic, European, Euro-Caucasian Circumpolar Boreal, Trans Subboreal, Holarctic, Euro Siberian. Was found 7 types of life forms: geohortobiont garpaloid, burying stratobionts, inhabiting the litter-soil, stratobionts litter, stratobionts surface litter, the litter stratobionts cracks, stratohortobionts, epigeobionts go forth. According biotope affinity the collected species of ground beetles are 10 types: meadow, meadow forest, meadow wildflowers, coastal meadow, forest, swamp forest, forest meadow, riparian, coastal forest, eurytopic. In addition, defined 5 ecological groups of ground beetles towards moisture: hygrophila, xerophyte, mesophyte, mezogigrofite, mezokserofite.

**Conclusion**. Thus, in the period from 01.08.2014 on 29.09.2014 and 08.01.2015 on 09.30.2015 collected 256 instances of ground beetles, presented thirty-one species and fifteen genus. Index of Simpson is maximum for the fifth biotope (0.71) and is minimal for the second (0.13), index of Shannon-Weaver is high in the fifth biotope (2.26), but the maximum value takes the third biotope (2.68), minimal for the seventh of the biotope (1.59).

After analyzing, the zoogeographical characteristics of ground beetles noted 9 groups of areas. The highest percentage of the total fees accounted for Euro-Caucasian (25%) and the smallest in the Holarctic (0.4%). Revealed 7 types of life forms with a predominance stratobionts litter (27%) and the lowest percentage stratohortobionts (2%). Was founded 10 types of ground beetles on biotopic affinity, the highest percentage in the total sample falls on forest species (30%), and lowest in the coastal meadow form (1%). Revealed 5 ecological groups of ground beetles in relation to moisture, with the largest percentage of the overall sample accounted for mesophilic species (50%) and the smallest in the mezokserofils species (4%).

# ROLE OF THE PRODUCTION ENTERPRISES IN FORMATION POCHVENNOGOPOKROV G. POLLUTION VITEBSK

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The soil cover of Vitebsk in the considerable territory experiences negative chemical impact of generally production complex (stationary sources), and also emissions of motor transport. The top soil horizon easily becomes soiled and is presented by the easily getting soil types (sandy and loam), and heavy metals are one of main types of pollutants of soils of Vitebsk in relation to local background values [2].

The main goal of the project is – inspection of soils of Vitebsk on pollution by toksikant of the production origin (Zn, Cu, Pb) for receiving reliable information about a condition of soils, assessment and the forecast of a condition of soils for the purpose of development of ecologically reasonable recommendations about their rational use and protection.

**Material and methods.** Results of researches were carried out from April 28, 2016 to August 9, 2016. Were carried out in the territory of Vitebsk in the soil exemplars which are selected in the territory of the production enterprises: JSC Vitebsky zavod radiodetaley Monolit, JSC Vitebsk Plant of Electrical Measuring Instruments, JSC Vityaz, JSC Keramika, RUP zavod Evistor. In total 25 soil tests were selected, in each of which the maintenance of three elements was defined. Researches on determination of bulk content of heavy metals were conducted at UO rby VSU of P. M. Masherov a research inventory and devices with application of a spectrometer method. The received results compared to maximum allowable concentration (UEC) of heavy metals in the soil depending on type of the prevailing soil (tab. 1).

**Results and discussion.** The mixed and cespitose and podsolic soils on sandy loams with the average content of a humus in the studied horizon (0-20 cm) of about 0,5–1,4% were the prevailing type of the soil that first of all is bound to the fact that the high layer was explored. Acidity of the soil changed within 5,4–8,6 and averaged – 7,0 pieces.

N⁰	Rate	Soil type	pН	Zn	Cu	Pb
1	MAC (UEC)	Sandy	Any environment	55,0	33,0	32
2	MAC (UEC)	Loam	>5,5	220,0	132,0	32
3	MAC (UEC)	Loam	<5,5	110,0	66,0	32

Table 1 – Maximum allowable concentration (UEC) of heavy metals in the soil depending on type of the prevailing soil, mg/kg.

*Pollution of soils Zinc.* Results of inspection of a soil cover of Vitebsk on the content of Zincum near the production enterprises for two surveyed horizons of 0–5 cm and 5–20 cm as of 2016 are presented in table 2. Excess of maximum allowable concentrations values of Zinc in the soil in the territory of almost all specified production enterprises was not.

*Pollution of soils Copper.* Results of inspection of a soil cover of Vitebsk on the content of copper near the production enterprises for two surveyed horizons of 0-5 cm and 5–20 cm as of 2016 are presented in table 2. Excess of maximum allowable concentration (UEC) of an element in the top horizon (0–5 cm) near the following enterprises is noted: RUP the Evistor plant – 134,8 mg/kg (4,08 maximum allowable concentrations) and JSC Keramika of-72,6 mg/kg (2,2 maximum allowable concentrations). In the lower horizon (5-20 cm) the maximum is noted near the following enterprises: RUP the Evistor plant – 130,2 mg/kg (3,9 maximum allowable concentrations), JSC Vitebsk Plant of Electrical Measuring Instruments – 48,2mg/kg (1,4 maximum allowable concentrations).

N₂	Name		Mean value of	Mean value of	Mean value of
		Layer of	maintenance of	maintenance of Cu	maintenance of
		earth	Zn		Pb
1	JSC Vitebsk Plant of	0–5	21,1	21,8	79,7
	Radio Components	5-20	19,5	22,1	78,1
	Monolith				
2	JSC Vitebsk Plant of	0–5	22,8	16,5	77,1
	<b>Electrical Measuring</b>	5-20	21,2	44,3	25,1
	Instruments				
3	JSC Vityaz	0–5	25,4	23,6	20,3
		5-20	25,2	16,3	30,6
4	JSC Keramika	0–5	33,3	74,6	94,5
		5-20	24,0	55,4	19,9
5	RUP Evistor	0–5	28,1	108,2	26,4
		5-20	23,9	89,9	23,7

Table 2 – The maintenance of pollyutant in soils near the most polluted production enterprises of Vitebsk in 2016, nonvolatile solid mg/kg

*Pollution of soils Lead.* Results of inspection of a soil cover of Vitebsk on the content of lead near the production enterprises for two surveyed horizons of 0-5 cm and 5-20 cm as of 2016 are presented in table 2. The largest content of lead in the top horizon (0-5 cm) is noted near the following enterprises: JSC Keramika – 346,4 mg/kg (10,8 maximum allowable

concentrations), JSC Vitebsk Plant of Radio Components rthe Monolith – 179,2 (5,6 maximum allowable concentrations), JSC Vitebsk Plant of Electrical Measuring Instruments – 75,2 mg/kg (2,3 maximum allowable concentrations).

**Conclusion.** Having analysed the obtained data on the content of heavy metals in the soil near the production enterprises, it is possible to draw a conclusion that the industrial zone is the most polluted along with a roadside strip in comparison with other functional zones. According to the analysis lead is a priority pollutant. The soil cover of Vitebsk to a lesser extent undergoes pollution from Zinc in comparison with other studied pollyutant.

Reference list:

- Ibragimov, A.K., Influence of the urbanized territories on a condition of natural landscapes: ekologo-pedagogical aspects // Ecological education: problems and prospects. / A. K. Ibragimov, A. A. Terentyev, A. A. Ibragimov. – H: Novgorod, 1998. – 137 p.
- 2. Grushko, Ya.M. Harmful inorganic compounds in the production pollutions / Ya.M. Grushko. L.: Chemistry, 1987. 160 p.

# CONTENTS OF IRON (III) IONS IN SOILS WITH DIFFERENT ANTHROPOGENIC LOAD IN VITEBSK REGION

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Soils are the major sink for heavy metals released into the environment as a result anthropogenic activities and unlike organic contaminants which are oxidized to carbon (IV) oxide by microbial action, most metals do not undergo microbial or chemical degradation, and their total concentration in soils persists for a long time after their introduction. Heavy metal contamination of soil may pose risks and hazards to humans and the ecosystem through direct ingestion or contact with contaminated soil, the food chain (soil-plant-human or soil-plant-animalhuman), drinking of contaminated ground water, reduction in food quality (safety and marketability) via phytotoxicity, reduction in land usability for agricultural production causing food insecurity, and land tenure problems [1].

The aim of the study of iron ions in the soils Vitebsk region with different anthropogenic load.

**Material and methods**. Soil samples were collected in 6 districts of the Vitebsk region: Miory, Polotsk, Ushachi, Senno, Orsha and Vitebsk districts. The concentration ions of iron (III) in the soil was determined by the photometric method on the grounds that the sulfosalicylic acid reacts with iron salts forming colored complex compounds. Maximum permissible concentration in soil ions iron is 5.0 mg/kg [2].

The mathematical processing of the results was carried out by methods parametric and non-parametric statistics using statistical software the Microsoft Excel 2003, STATISTICA 6.0.

**Results and discussion.** The study of the concentration of mobile forms of iron revealed the following patterns (Table 1).

After analyzing the data, it was found that in Miory lowest concentration of iron ions in the soil found in the park, and the largest - in the coastal zone of the reservoir, the value is 2,6 times higher than in the park. The value in the town center is 1,5 times higher than in the park. In the coastal zone of the reservoir above the result in the maximum permissible concentration value of 1,5 times, in the city center and in the park do not exceed maximum permissible concentration.

In the Novopolotsk lowest content of iron ions observed in the park, and the largest in the coastal zone of water. There were no significant differences in values between the zones. When compared with the maximum permissible concentration, established a small excess in the coastal zone of the reservoir, in the center of the city and park values are normal.

In Ushachi the lowest value of the concentration of iron ions observed in the coastal zone of the reservoir, and the largest – in the park. The value in the park area is higher than in the coastal zone of the reservoir 1,6 times. The value in the center, slightly higher than in the coastal zone of the reservoir, the values are not statistically valid. By comparing the values obtained with the maximum permissible concentration index, it found that in all three zones of values normally do not exceed the maximum permissible concentration.

Placessoil-	The content ion of iron (III)				
sampling	The coastal zone pond	City center	The park area		
			$2,88 \pm 0,195$ <sup>2,8,9,12,15,19</sup>		
		$4,97 \pm 0,305^{8,11,17}$	$4,61 \pm 0,236^{-3,12,18}$		
	$2,36 \pm 0,062^{-8,9,16,19}$		$3,93 \pm 0,254^{8,18,19}$		
Senno		$3,86 \pm 0,138^{-8,17,19}$	10,88 ±0,401 9,11,15,18,19		
Orsha	$2,78 \pm 0,192^{-14-16,19}$	$4,73 \pm 0,407^{-8,17}$	$5,32 \pm 0,301^{-9,18}$		
Vitebsk	$4,36 \pm 0,101^{-17-19}$	$2,57 \pm 0,157^{-19}$	$0,76 \pm 0,051$ <sup>17,19</sup>		

Table 1 – Contents of iron (III) ions in the soil (mg/l	kg soil) $(M \pm m)$
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Note: <sup>1</sup>P <0.05 compared with the soil taken near the pond in Miory; <sup>2</sup>P <0.05 compared with the soil from the center in Miory; <sup>3</sup>P <0.05 compared with the soil from the park in Miory; <sup>4</sup>P <0.05 compared with the soil taken near the pond in Novopolotsk; <sup>5</sup>P <0.05 compared with the soil from the center in Novopolotsk; <sup>6</sup>P <0.05 compared with the soil from the park in Novopolotsk; <sup>7</sup>P <0.05 compared with the soil taken near the pond in the town Ushachi; <sup>8</sup>P <0.05 compared with the soil from the center in Ushachi; <sup>9</sup>P <0.05 compared with the soil from the park in Ushachi; <sup>10</sup>P <0.05 compared with the soil taken near the pond in Senno; <sup>11</sup>R <0.05 compared with the soil from the center in Senno; <sup>12</sup>P <0.05 compared with the soil from the center of the town in Orsha; <sup>15</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the center of the town in Orsha; <sup>15</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the center of the town in Orsha; <sup>15</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>19</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>16</sup>P <0.05 compared with the soil from the park in Orsha; <sup>19</sup>P <0.05 compared with the soil from the park in Orsha; <sup>19</sup>P <0.05 compared with the soil from the park in Orsha; <sup>19</sup>P <0.05 compared with the soil from the park in the city in Vitebsk; <sup>19</sup>P <0.05 compared with the soil from

In the town of Senno smallest value of iron ions in the center of the city, the largest – in the park. The value in the park area above the value at the center of the city of 2,8 times the value of the coastal zone of the reservoir above the value at the center of the city of 1,4 times. The park area received value above the maximum permissible concentration values of 2,1 times, and the value of the coastal zone of the reservoir is slightly higher than the value of the maximum permissible concentration. In the center of the city does not exceed the maximum permissible concentration.

In Orsha the lowest concentration of iron ions found in the coastal zone of the reservoir, the largest – in the park. The value of the park exceeds the value of the coastal zone of the reservoir 1,9 times. The value in the center of the reservoir exceeds the value of the coastal zone is 1,7 times. Comparing the data obtained with the maximum permissible concentration, found a slight excess of maximum permissible concentration in the park area. In the coastal zone of the reservoir and in the center of the values is normal.

In Vitebsk the lowest content of iron ions found in the park, and the largest – in the coastal zone of the reservoir. The value of the coastal zone of the pond in the park above the value of 5,7 times. The value in the center of the above values in the park area of 3,3 times. Comparing the data obtained with the maximum permissible concentration value, it is found that in all three zones to normal values does not exceed the maximum permissible concentration.

Analyzing the data by the coastal zone of the reservoir, it's possible to judge that the lowest level of iron is contained in a coastal zone pond in the town Ushachi, and the greatest – in Miory. The value in Miory district greater than in the town Ushachi in 3,2 times, in Novopolotsk – in 2,3 times, in Senno – 2,3 times, in Vitebsk 1,8 times, in the town of Orsha differences are insignificant.

In the center of the city the smallest content of iron ions observed in Vitebsk, and the greatest – in Novopolotsk. The value in Novopolotsk exceeds the value in Vitebsk 1,9 times in Miory – in 1,7 times, in Senno – by 1,5 times, in the town of Orsha – 1,8 times, in the town Ushachi no significant differences.

Considering the data concentration of iron ions in the soil of a park zone, it can be said that the minimum content of iron ions is observed in Vitebsk and most – in Syanno. The value in Senno more than in Vitebsk 14,3 times in Miory – in 3,7 times, in Novopolotsk – 6 times in Ushachi – 5,1 times, in Orsha – 7 times.

**Conclusion.** Thus, the study of mobile forms of metals in the soil showed that the total content of iron ions in the soil depends on the selection of the place and type of soil. In each of the selected sites of metal ions, accumulate differently. The study found excess of the maximum permitted

concentration of iron in a coastal zone of pond in Miory, Novopolotsk, Senno and in the park area of the city – in Senno and Orsha.

This level of iron in the soil due to the fact that the industrial enterprises of cities use water bodies for their own purposes, resulting in a discharge of polluting substances into the aquatic environment of cities, which leads to pollution of coastal waters area. The park is located in a busy part of the city. The human impact on the ground of a park zone in the cities is high. In the soil, taken in the center of the city is not observed increased concentrations of iron ions, as all industrial enterprises in the towns located on the periphery. But also not to say that the values in these cities are small, because in the center of the cities noted a large concentration of machines. Consequently, there is a large exhaust emissions that affect the composition of the soil. Iron may be supplied in the water due to corrosion of structures.

#### Reference list:

- 1. Orlov, D.S. Soil and environmental monitoring and protection of soil / D.S. Orlov, V.D.Vasilyevskaya. M.: MSU, 1994. 272 p.
- 2. Zharnasiek, A.K. Physico-chemical methods of analysis / A.K. Zharnasiek, I.S. Borisevich. Vitebsk: VSU named after P.M. Masherov, 2012. 12 p.

## ECOLOGICAL AND FAUNISTIC FEATURES COMPLEXES OF GROUND BEETLES (COLEOPTERA, CARABIDAE) OF GORODOK

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Cities are the new environment habitat. This environment is characterized by specific ecological factors. Urban habitats greatly transformed, which affects the composition and structure of communities of different organisms. Ground beetles play an important role in ecological studies as convenient indicators of the environment and pollution introduced by man. Study Coleoptera - inhabitants of the urban environment in Belarus is carried out mainly on the example of large cities. At the same time, small towns, particularly within the north of Belarus, remain poorly studied. A typical example of a small town is the Gorodok. This town is the administrative center of Gorodok district, Vitebsk region.

The aim of the study - to identify the species composition and ecological characteristics of ground beetles of Gorodok.

**Material and methods.** The material was collected using a soil traps (or traps of Barber) 9% acetic acid solution. The line of 10 traps was placed at each site at a distance of 2-2,5 meters apart. The beakers with a volume of 0,5

liters was used as traps. Collection of material was carried out from 2013 to 2015.

Study was carried out on the example of 10 biotopes. Biotope  $N_{2}1$  presented field. In grassy tier dominated cereals presented *Phleum pretense* and *Festuca pratensis*. Biotope  $N_{2}2$  located in the private sector. Vegetation is represented by *Rúbus idáeus* and *Grossularia reclinata*. Biotope  $N_{2}3$  nestled among high-rise buildings. The predominant vegetation is *Ligustrum vulgare* and *Syringa vulgaris*. Biotope  $N_{2}4$  was in the food factory. Vegetation is represented by grasses. Biotope  $N_{2}5$  presented hill slope near the river. In grassy tier dominated cereals presented *Phleum pretense* and *Calamagrostis epigeios*. Biotope  $N_{2}6$  located on the banks of the river Gorozhanka. Biotope  $N_{2}7$  located on the railway tracks. Biotope  $N_{2}8$  presented in a mixed forest near the town. Biotope  $N_{2}9$  is among tree plantations in the central part of the town. Biotope  $N_{2}10$  presented the new residential microdistrict. The index measures the information diversity of Shannon-Weaver and index dominance concentrations of Simpson were used to measure the degree of biodiversity and to assess the data breach biotopes.

**Results and discussion.** As a result of study were found 462 specimens and 51 species of ground beetles. The greatest number of species was found in the biotope  $N_{21}$  (18 species) and  $N_{22}$  (17 species). The smallest species diversity was observed in biotopes  $N_{26}$  and  $N_{28}$  (7 species).

To assess the extent of biodiversity have been used indexes of Shannon-Weaver (H) and Simpson (C). The highest values of the first index and smallest values of the second index were established for the complexes  $N_{2}$  (H = 2,53 and C = 0,1),  $N_{2}$ 4 (H = 2,44 and C = 0,11) and  $N_{2}$ 5 (H = 2,47 and C = 0.11).

Specific species composition characteristic of each habitat, only a small number of species are found in several habitats. Such species as *Carabus cancellatus*, *Poecilus cupreus*, *Pterostichus melanarius* are the most common. The heterogeneity of the distribution of the species composition is due to different environmental conditions in various habitats.

In the analysis of life forms the largest percentage was typical for stratobionts burrowing the litter-soil, epigeobionts walking and stratobionts litter. Vegetation, soil and location of urban habitats contribute to the spread of smaller species of ground beetles that live mainly in the litter. These species are stratobionts.

The analysis of biotopical location the most numerous are eurytopic, meadow, field and forest species. Eurytopic species were found in all the studied biotopes that be explained the broad ecological plasticity of these species. Meadow - field types have a high number in biotopes with a predominance of herbaceous vegetation. The high percentage of forest species due to the presence of trees and bushes planted in the studied biotopes. In the analysis of areas the highest percentage was found in the westcentral- Palearctic and Trans-Palearctic species of ground beetles. European species predominate in habitats with higher humidity. More thermophilic Euro-Caucasian species are numerous in the more arid habitats. Also, given the geographical location of the study area, there are Euro-Siberian and Holarctic species of ground beetles that live in conditions of lower temperatures.

Humidity and temperature conditions in the towns cause the dominance of mesophilic species of ground beetles. The proportion of hydrophilic species of ground beetles increases in habitats close to the water objects. Xerophilous species are more numerous in the arid habitats of the railway embankment.

**Conclusion.** Study was carried out on the example of 10 habitats. As a result, it was revealed 462 specimens and 51 species of ground beetles. The study found 10 groups of life forms. According biotopical location was detected a high percentage of eurytopic species of ground beetles. In the study areas was found 8 types. West - central Palearctic and trans - Palaearctic species of ground beetles are dominate within the Gorodok. In relation to the humidity of ground beetles the mesophilic species are the most numerous.

# IMPROVED DEVICE FOR OILY SORBENTS COLLECTING AND CONTAINMENT

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When ingress of oil into impoundments it covers water surface with thick slick which blocks air and light. 1 ton of oil (equivalent) covers 12 km<sup>2</sup> areas. Environmental implications of oil spills are highly unpredictable since a lot of natural processes and interrelations are disturbed due to oil pollution. It's accumulated in biomass and impacts organisms' habitat conditions. Urgent oil gathering and removal are important.

Formerly a large number of oily sorbents collecting and containment devices were offered, a part of which is practically used. Oil booming containments became widespread.

Since 1989 a booming containment consisting of two-parted unit with an inflatable cylindrical float at the unit's top and oil-resistant rubberized mud bucket at the bottom of the float is known [1]. But it is admitted to be insufficient due to entrainment loss.

In 2001 a patent for a booming containment with oil retaining apron was taken out. Hydro mechanical valve density is higher than oil gravity which effects a response to oil pollution of watercourse, providing oil ingress into cylinder oil receiver where it is carried to petroleum reservoir and finally is pumped off [2]. Deficiency of such unit lies in hindered valves operation caused by oily sorbents which leads to valve jamming\locking. In addition the appliance of such unit on first order waterways is insufficient for oil and oily adsorbents carryover under the apron.

The best of the previously proposed booming containments, in our opinion, is a device patented in 2005 [3]. The device comprises a float, a mud bucket made of oil-resistant material, the traction rope hanging freely flexible web attached to the bottom of the mud bucket, and a vent for airfilling float. Oil, moving along the surface of a watercourse, delayed and accumulated at the surface of the mud bucket. The collected oil is removed by oil skimmers in the tank for later use. The disadvantage of this booming containment's construction is the inability to prevent the entrainment of oilsaturated sorbent. Besides accumulation of oil-saturated sorbent from the free-hanging flexible canvas leads to its weighting, and entrainment of oil under the booming containment.

Thus, formerly offered booming containments are insufficient for oily sorbents collecting.

The goal of our research is to improve oily sorbents collecting and containment device efficiency by means of structural and functional changes of a booming containment.

**Material and methods.** A peat-based absorbent with a modifier was used for decontaminating oil slicks from the surface of the watercourse. Preliminarily, before its usage, the absorbent was combined with filings in the ratio of 1 to 1.

The magnetic booming containment was delivered to the installation site in sections. Each of the sections of the magnetic booming containment includes a metal slick bar with electromagnets. «+» and «-» wires with sealings near the entry point into the metal slick bar's cavity lead to the bar from a direct current generator. Underneath, a mud bucket is attached to the metal slick bar. While installing the metal slick bar and each of the sections on the watercourse, its electromagnets should be connected in parallel to the direct current generator by using the «+» wire and the «-» wire which enter the cavity of the metal slick bar through their sealings to ensure the interface integrity.

**Results and discussion.** A magnetic booming containment was constructed for the purposes of the task. The device includes sections, each of which contains a float with oil- resisting mud bucket underneath. Unlike previously suggested devices, the float is made of metal, and there are electromagnets within, with the wires connected from the direct current generator.

A magnetic booming containment is best performing with simultaneous usage of an absorbent with magnetic properties. For the said purpose, filings are advised to be used as a modifier for the absorbent. The filings in the absorbent allow for its adhesion to the walls of the metal slick bar. When localized with a barrier and filled with oil, such absorbent gravitates to the metal float with electromagnets within. This drastically reduces the amount of oil-saturated sorbent collected under the mud bucket and simplifies the subsequent decontaminating of oil-saturated adsorbent.

The device works in the following way. When moving across the surface of a watercourse, oil slicks are held and decontaminated underneath the mud bucket. When oil-saturated absorbent comes close due to the flow, a generator should be turned on to create a magnetic field within and along the metal slick bar to provide the adhesion of the oil-saturated absorbent to the metal slick bar.

If the flow velocity is high (more than 0.3 meters/sec), the barrier can be placed at an angle to the watercourse. The angle of the barrier installation should be increased proportionally to the velocity of the watercourse's flow.

**Conclusion.** The conducted tests of the magnetic booming containment for capturing peat-based absorbent with a modifier, combined with filings in the ratio of 1 to 1, proved the efficiency of this absorbent's usage.

Reducing the probability of carrying over the oil-saturated sorbent under the magnetic booming containment increases the efficiency of its usage, which is particularly important for watercourses with high velocity flows.

Reference list:

1. SU 1465488, A1, МПК4 Е 02В 15/04, опубл.1989.03.15.

2. ВҮ 4112, С1, МПК7 Е 02В 15/04, опубл.2001.09.30.

3. ВҮ 7457, С1, МПК7 Е 02В 15/04, опубл.2005.12.30.

# THE CONTENT OF HEAVY METALS IN THE SOILS OF THE CENTRAL ZONE OF THE CITY OF VITEBSK REGION WITH VARIOUS ANTHROPOGENIC LOAD

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Heavy metals occur naturally in the soil environment from the pedogenetic processes of weathering of parent materials at levels that are regarded as trace ( $<1000 \text{ mg/kg}^{-1}$ ) and rarely toxic. Due to the disturbance and acceleration of nature's slowly occurring geochemical cycle of metals by man, most soils of rural and urban environments may accumulate one or more of the heavy metals above defined background values high enough to cause risks to human health, plants, animals, ecosystems, or other media. The heavy metals essentially become contaminants in the soil environments because their rates of generation via manmade cycles are more rapid relative

to natural ones, they become transferred from mines to random environmental locations where higher potentials of direct exposure occur, the concentrations of the metals in discarded products are relatively high compared to those in the receiving environment, and the chemical form (species) in which a metal is found in the receiving environmental system may render it more bioavailable [1].

The aim of the study of heavy metal ions in the central zone of the cities of Vitebsk region with varying anthropogenic load.

**Material and methods.** Soil samples were collected in the central zone of the following locations: Miory, Novopolotsk, Ushachi, city Senno, Orsha, Vitebsk. The concentration of heavy metals in the soil was determined by the photometric method and titration method [2]. The mathematical processing of the results was carried out by methods parametric and non-parametric statistics using statistical software the Microsoft Excel 2003, STATISTICA 6.0.

**Results and discussion.** The study of the concentration of mobile forms of heavy metals revealed the following patterns (table 1).

Analyzing the data in the city center, can be seen that the lowest content of iron ions observed in Vitebsk, and the greatest – in Novopolotsk. The value in Novopolotsk exceeds the value in Vitebsk 1,9 times in Miory – in 1,7 times, in Senno – by 1,5 times, in the town of Orsha – 1,8 times. In Ushachi no significant differences.

After analyzing the data obtained by the content of copper ions in selected soil samples in the city center, set the lowest and the highest concentration of copper ions in Novopolotsk and Vitebsk respectively. Values in Vitebsk, more value in Novopolotsk in than 14,9 times, Miory – in 2,1 times, in the town Ushachi – in 1,4 times, in the town of Orsha – in 1,7 times. In Senno minor differences.

Places soil sampling	The content of of copper ions (II)	The content of gland ions (III)	The content of of zinc ion (II)
Miory	$0,65 \pm 0,121$ <sup>7</sup>	$4,50 \pm 0,115^{-3,4,6,7}$	$48,39 \pm 1,005$ <sup>7</sup>
Novopolotsk	$0,30 \pm 0,046^{-1,5,7}$	$4,97 \pm 0,305$ <sup>3,4,6</sup>	$17,65 \pm 1,790$ <sup>7</sup>
Ushachi	$0,44 \pm 0,082$ <sup>7</sup>	$2,91 \pm 0,154$ <sup>7</sup>	$116,64 \pm 2,664$ <sup>7</sup>
Senno	$0,35 \pm 0,039$ <sup>5,7</sup>	$3,86 \pm 0,138^{-3,6,7}$	$80,29 \pm 1,235$ <sup>7</sup>
Orsha	$0,53 \pm 0,039$ <sup>7</sup>	$4,73 \pm 0,407^{-3,6}$	86,13 ± 0,898
Vitebsk	$4,84 \pm 0,007^{1-7}$	$2,57 \pm 0,157$ <sup>7</sup>	87,20 ± 3,019 <sup>7</sup>

Table 1 – Contents of heavy metal ions in the soil of the central particular	art
of cities (mg / kg soil) (M±m)	

Note:  ${}^{1}P < 0.05$  compared with the soil taken in Miory;  ${}^{2}P < 0.05$  compared with the soil taken in Novopolotsk;  ${}^{3}P < 0.05$  compared with the soil taken in the Ushachi;  ${}^{4}P < 0.05$  compared with the soil taken in Senno;  ${}^{5}P < 0.05$  compared with the soil taken in Orsha;  ${}^{6}P < 0.05$  compared with the soil taken in Vitebsk;  ${}^{7}P < 0.05$  compared with the maximum allowable concentration.

After analyzing the data obtained by the content of zinc ions in selected soil samples in the city center, set the lowest and the highest concentration of zinc ions in Novopolotsk and Ushachi respectively. The value in Ushachi more value in Novopolotsk 6,6 times in Miory – in 2,7 times, in Senno – in 4,5 times, in the town of Orsha – 4,8 times, in Vitebsk – 4,9 times.

**Conclusion.** The study found that the content of heavy metal ions depends on the type of soil collecting space, each of the selected locations metals accumulate differently. In the center of the cities indicated a large cluster of machines, and consequently, there is a large emission of exhaust gases that affect the composition of the soil.

Supply of copper in the soil is due to release during high-temperature processes: ferrous and nonferrous metallurgy, burning of cement raw materials, combustion of fossil fuel. Airflow emissions are transported over long distances (up to 10 km), with most of it falling a distance of 1-3 km from the epicenter.

Zinc enters the soil as a result of abrasion of various parts, galvanized surfaces erosion, wear of tires through the use of additives in oils containing this metal. After the rejection of the use of cadmium compounds in the rubber vulcanization processes and replacing them with zinc compounds abrasion of car tires has also become a source of accumulation of the metal along the roads.

#### Reference list:

- Zvyagintseva, D.G. Soil Biology / D.G. Zvyagintseva, I.P. Babeva, G.M. Zenova. M: MGU, 2005. – 445 p.
- 2. Zharnasiek, A.K. Physico-chemical methods of analysis / A.K. Zharnasiek, I.S. Borisevich. Vitebsk: «VSU named after P.M. Masherov", 2012. 12 p.

## MICROSCOPIC INVESTIGATION OF JUNIPERUS COMMUNIS L.' ANNUALLY LEAF

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Juniper as a typical underwood plant in Belarus has been used widely in the populated areas' green building. The high of the tree is 8–12 m, the crown is narrow conical or ovoid and too many branched. The bark is reddishbrown or dark gray, usually thin, often peeling in long strips.

Leaves borne in whorls of three persist for three years, erect to patent, 5-12(15) mm long. Juvenile foliage with a long pointed top, needle-like to narrowly oblong, very prickly, rigid, flat or slightly concave above, sessile, keeled and with a single broad white stomatal band on the upper side, which bifurcates from the base(sometimes is divided by a green line towards the base), often with an abaxial resin gland [1, 2].

In Belarus the anatomical study of gymnosperms' leaves mainly representatives of *Pinaceae* Lindl. Family is conducted by researchers from Brest State University named after A.S. Pushkin [3]. The *Cupressaceae* Bartl. Family representatives' leaves anatomy is analyzed insufficiently.

Purpose – to study *Juniperus communis* L. leaf structure in the initial phase of the individual development.

**Material and methods.** The material for the research was selected on May 28 2016 at 11.30 a.m. in Vitebsk State Universities' Botanical Gardens. The weather was sunny. Patterns were taken from the central part of the female specimen of juniper's crown. Annually needles immediately were placed in formalin and were remained there during 7 days. On the basis of Education establishment "Vitebsk State Academy of Veterinary Medicine" were made 2 microns thick sections on a freezing microtome. Coloring sections with hematoxylin-eosin was performed by the standard technique (staining in hematoxylin for 2 min, eosin for 1 min). For the temporary preparations' analysis was used a light microscope OLYMPUS BX51 (magnifications 10, 20, 30, 40x). Photomicrographs were obtained by an OLYMPUS XC50 camera. The manual "Colors scale" by Bondartsev A. was used for color analysis of needles [4].

**Results and discussion.** 79 micrographs were performed. The needle's shape in a cross section is a narrow elongate with a keel on the underside and a concave upper side [2].

The following colors have been noticed during the stained section analysis: Virescens, Pomaceus, Flavidus, Cinnamomeus, Avellaneus, Prunicolor [4].

The juniper leaf anatomical structure is a sequence of the following tissues and structures: the cuticle, the single-layer epidermis with stomata, single-row hypodermis (the layer of cells that increases the strength of the needle, the walls of these cells fulfil a mechanical function), folded mesophyll (main parenchyma living cells with a number of chloroplasts [5]), in which the resin ducts are located. In the center is vascular bundle surrounded by transfusion parenchyma with endoderm [6].

On a cross section (Figure 1) there are such structures as: a thin layer of the cuticle( the upper and lower cuticle layers' thickness is approximately equal), a single layer of the epidermis with slightly elongated stomata cells, mesophyll isn't completely formed yet; distinguishable vascular bundle is situated in the center of the needle.

On the longitudinal section (Figure 2) is visible the cuticle layer on the bottom side of the needle, a single layer of epidermis with elongated stomata cells, mesophyll.



communis L.' needles cross section



Figure 1. Light micrograph of Juniperus Figure 2. Light micrograph of Juniperus communis L.' needles longitudinal section

Such tissue as hypodermis was not observed it can be assumed thatduring needle's ontogenesis the hypodermis is formed later when it is necessary to strengthen the mechanical function.

**Conclusion.** Analysis of micrographs shows that at the initial stage of Juniperus communis L. needles' individual development can be noticed the following structural features: the cuticle is clearly visible, single-layer epidermis with stomata; mesophyll is not completely formed; distinguishable vascular bundle in the center of the needle. On the micrographs lack of the tissue performing mechanical function, hypodermis, gives us an opportunity to assumed hypodermis' later formation.

Further studies will be continued.

#### Reference list:

- 1. Nesterovich, N.D. Structural features of conifers leaves N. D. Nesterovich, T.F. Deriugina, A. I. Lutchkoff. – Mn .: Science and Technology, 1986. – 71 p.
- 2. Thomas, P.A. Biological Flora of the British Isles: Juniperus communis L. / P.A. THOMAS, M. EL-BARGHATHI, A. POLWART // Journal of Ecology, 95, 2007. -P. 1404–1440.
- 3. Eremin, V.M. Comparative anatomy of pine leaf / V.M. Eremin; scientific. ed. Eremin V. M.; Brest. state University named after A.S. Pushkin. -Brest: publushing house of BrSU named after A.S. Pushkin, 2002. –182 p.
- 4. Bondartsev, A.S. Colours scale / A.S. Bondartsev. Mn .: Publisher Academy of Sciences of the USSR, 1954. – 27p.
- 5. Bavtuto, G.A. Botany: Morphology and Anatomy of plant / G.A. Bavtuto, V.M. Eremin. – Mn .: The higher school, 1997. – P. 238–239.
- 6. Knyazeva, S.G. Morphologo-anatomical characteristics of Junipers' needles / S. G. Knyazeva // Coniferous of boreal zone, the XXX. –  $\mathbb{N}$  1 – 2, 2012. – Institute of Forest named after V.N. Sukachev SB RAS. - P. 92-96.

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

# THE SVYATSKYS' MANOR AND PARK COMPLEX IN THE AGROTOWN OF PLAMYA

### A. Baranovsky

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In the agrotown of Plamya in Senno district, Vitebsk region a former Svyatskys manor and park complex is located. It includes a manor-house, outbuildings, and park fragments.

The relevance of the study is that through the history knowledge of one's homeland we form love for the native land on the whole.

The aim of the research is to study the Svyatskys' manor and park complex.

**Material and methods.** The study uses scientific methods functions (description, analysis, synthesis) and special historical (historical and systematic) methods. The materials for the research materials from funds of zonal State Archives in Orsha and memoir sources.

**Results and discussion.** Since the mid 19<sup>th</sup> century the Svyatsky family had owned the manor. Joseph Svyatsky bought Plamya (Belitsa) on November 23, 1856 [1, p.11]. He had two children – Carl and Maria. In 1891 Carl Svyatsky was heir to Plamya (Belitsa). He had been master of the manor up to 1918. Carl married Maria Donimirskaya and they had a son named Stanislav [2, p. 5]. The Svyatskys' Plamya (Belitsa) was the center of western culture and the Polish language. Every summer students, writers, artists and the masters relations and friends rested there.

The stone manor-house was built by the Svyatskys in the mid 19<sup>th</sup> century in classical sfyle (in the sfyle of late classicism). Jater it was rebuilt partly and enlarged. The main building was one-storeyed. Only the middle part had an upper storey. In 1907–1911 Carl Svyatsky built a two-storeyed octogonal tower up to the left wing of the manor-house [3, p. 283–285]. On the part of the garden there was an oval hall where the balls took place, and the wooden veranda was attached to it [4].

The Svyatskys had a big library – around 3,000 books in Polish, Russian, German and English.

The manor park was laid out at the end of the 19<sup>th</sup> century by the manor owners Svyatskys. The park surrounds the house on all sides. Fedoruk attributes the park in Plamya to the regular (French) type of the eclectic period [5, p. 87]. There is a short description of the park in the Polish researcher Aftanasi's work, which corresponds more to an English landscape park [3, p. 284]. From our point of riew this landscape park is of transition type.

No park went without a water poud. It was established as a mirror to double the height of trees and buildings. There was a pond beside the manorhouse as well, with bridges and benches.

The Svyatskys' manor comprised a warehouse, a cowshed, a distillery and alcohol cellar besides the manor-house. All the buildings were made of large sledged stone and bricks. More than a half of the outbuildings were provided with electric power.

The landlords' revenues derived from agriculture and manufacturing were big.

Carl Svyatsky initiated visits to Denmark, Sweden, Germany and Poland on his own funds and studied progressive agricultural methods there [6, p. 14]. Dairy cattle breding enabled cheese and butter production. The products were packed into, wooden boxes, labelled "DOBRA BIELICA, K. ŚWIACKIEGO" and sold through the Russian Empire [4]. The turpentine plant, a windmill and a watermill were also hecrative.

Dozens of agricultural students had their practice in Belitsa under the guidance of Carla Svyatskya and his administration. After the October Revolution the Svyatskys left Plamya (Belitsa). For Poland, presumably, because it was there where he died in 1929 [7, p. 13-14].

**Conclusion.** Thus, Plamya (Belitsa) experienced its growth when the Svyatskys owned it. They built a manor and park complex which included a manor-house, outbuildings, a park and water ponds. The manor of the Svyatskys was the place for the cultural and intellectual elite of the district to assemble.

Reference list:

- 1. Zonal State Archives in Orsha. f. 197, op. 1, d. 208.
- W kościele parafialnym w Popowie Toruńskim // Dziennik Poznański. 1894. 19 lipiec – Str. 5.
- Aftanazy, R. Dzieje rezydencji na dawnych kresach Rzeczypospolitej / R. Aftanazy. T. 1. – Warszawa, 1986.
- Albumzdjęć rodziny Świackichz Bielicy / Biblioteka Narodowa [Electronic Resource] – 2015. Access: http://polona.pl /dlibra/doccontent2?id =38609&dirids=23. – Date of access: 19.10.2016.
- 5. Fedoruk A.T. Landscape Gardening Art of Belarus / A.T. Fedoruk. Mn. : Crop yield, 1989. 246 s.
- 6. Trip to Denmark and Sweden / described the K.J. Swiacki. Mn., 1908. 27 s.
- 7. Karl Świacki // SłowoPomorskie. 1929. 9 maja Str. 13 14.

# THE DEVELOPMENT OF THE EXCURSION "HOTTABYCH AND DUBROVSKY. LITERARY VITEBSK"

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The trend of the tourism development is a constant search of new offers. The demand of thematic tours is growing untiringly. Guides are developing new themes, discover the city with new perspectives, offer non-standard forms and new ways of exploring the city. Vitebsk, being one of the leading tourist centers of the country, also offers to its visitors a variety of unusual offers. The development and implementation of unusual urban trips is becoming a new trend, as a result the theme of this study is seen actual.

The aim of this article is to highlight and analyze the new Vitebsk city tour called "Hottabych and Dubrovsky. Literary Vitebsk".

**Material and methods.** During the writing this work, the following references were used: the site of the Vitebsk encyclopedia, literary newspapers and magazines of Vitebsk, personal experience in the preparation of the tour and it's realization; as well as the following methods: statistical, descriptive and analytical, comparative benchmarking, methods of analysis and synthesis.

**Results and discussion.** Vitebsk is the city that captivates at first sight, it is where tourist wants to go back and stays forever. Hundreds of poets and writers devoted their works to this city. It seems that even the air is saturated with creativity and inspiration. Vitebsk keeps the memories, meetings, feelings of the literary geniuses. This attracts great interest among residents and visitors. One of the available forms of discovering is an excursion. The excursion will have a literary emphasis on the objects which were described in the memories of writers, and on the areas associated with the writers who have lived in the city or visited it. According to the descriptions of the city by famous personalities, tourists will be able to find out how the city looked like.

The selection of objects was done in accordance with the following criteria: the connection with the creation of a writer or a poet, the interest to the listener, accessible location for the group accommodation. In the course of the selection, the route of two and a half kilometers long was made. It starts from the railway station, and ends with the monument to Vladimir Karatkevich.

Our tour begins from the railway station. The gate of the city is a place to meet, date, and get new experience and hope. A place where any journey begins and ends, or which might have been only a 5 minute stop on tourist way. This is how the station is described in the referenced tour text. During its existence, it met many well-known personalities such as Bunin, Mayakovsky, Paustovsky and others. One of the special attractions of the city, a favorite "muse" of poets and writers of all times was the Dvina Bridge, currently the Kirov Bridge. In the route text this bridge is described as a place where Bella Rosenfeld and Marc Chagall met. Bella has left her memories about the place, wonderful poetic lines about the most beautiful bridge of the city.

Next on the route is a monument to one of the most influential literary figures of the first third of the 19th century Alexander Pushkin. In the text tour we disclose the theme of the poet's travel through our city and his meeting with the local nobleman. During the conversation Alexander Pushkin learns about the fate of the impoverished nobleman. The poet was impressed and decided to make this gentleman the protagonist of his novel "Dubrovsky" [1]. And we can be proud that thanks to our nobleman, the legendary novel was born.

One of the most striking objects of the tour is the Tolstoy Street. In the route text about it are following lines: "Here the history of the city lives, and here the most picturesque views of Vitebsk are concentrated. After all, on the Tolstoy Street lived Lazar Ginzburg (Lagin), a leading representative of satirical and children's literature. Everyone knows perfectly well the children's story of "The Old Hottabych", whose author is Lagin" [2].

The next tour object unfortunately did not get conserved. But the Church of St. Anthony of Padua has remained in the city's memory. The tour focuses on the memory of Ivan Bunin – the famous Russian writer, poet, and the first Russian laureate of the Nobel Prize in Literature. He claims that the church was more magnificent even than famous temples like Paestum, Acropolis, Sofia [1].

One of the most important object in the literary world of Vitebsk is a plaque to David Simonovic. Without him it would be impossible to imagine the cultural and social life of Vitebsk and its region. The main tour text describes this man as a public figure. He erected monuments and renamed bridges. It was Simonovich who contributed into the bas-relief of Vasil Bykov opening on the art school building, where he studied. By his activities Simonovich has entered his name in the chronicle of the cultural life of our city [4].

The tour ends near the monument of V. Karatkevich, who born not far from Vitebsk. The novels of this author describe the history and culture of our country.

**Conclusion.** Vitebsk is a city of literature. There is no doubt, as the very atmosphere of the city already inspires to create. The literary heritage of the city is impressive, here people created, create and will create forever. The excursion "Hottabych and Dubrovsky. Literary Vitebsk" is the good opportunity to learn the city history, feel its beauty and unique. This tour will be interest for guests and residents of the city and for people of different age. Also this excursion could be a good supplement for school program.

#### Reference list:

- 1. Vitebsk encyclopedia [Electronic resource]. 2014. Access: http://evitebsk.com/wiki. Date of access: 11.09.2016.
- "The Hottabych", who hails from Vitebsk // Vitebsk Courier [Electronic resource]. -2015. - Access: https://vkurier.by. - Date of access: 15.09.2016.
- Abramova I. "Secrets of the Vitebsk governor" / I. Abramova // TUT.by [Electronic resource]. 2015. Access: <u>http://news.tut.by/society/388454.html</u>. Date of access: 11.09.2016.
- 4. David Simonovic // GorodVitebsk.by [Electronic resource]. 2014. Access: http://gorodvitebsk.by/David. Date of access: 19.10.2016.

# POLICY OF IRAN IN THE CENTRAL ASIAN REGION CIS

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Conceptual installation of modern Iranian foreign policy strategy for its transformation into the Middle East leading the state is seen as a problem of special historical mission. It is a priority, but over the last few decades there is a noticeable evolution of the means and methods of its implementation.

With regard to the Central Asian countries, this strategy is now being implemented already taking into account the existing experience controversial post-Soviet time, and taking into account the impact of a number of factors. The purpose of research – to trace the process of formation and development of relations between Iran and the Central Asian countries.

**Material and methods.** During the work on the topic of study, the author appealed to the publicly available documents relating to the history of relations between Iran and the countries of Central Asia to the 1990s. to the present day. The study used historical-comparative, historical and systemic methods.

**Results and discussion.** At the beginning of the 1990s. Iran has stepped up its policy of «exporting the Islamic revolution» in the new states of Central Asia, in the first place – in Tajikistan, Uzbekistan and Turkmenistan.

*Iranian-Turkmen relations.* The main feature of the relationship between the two is that the rapprochement of the two countries is due directly to the fact that they are neighbors. For Iran, considerable interest is a feature of Turkmenistan's international status as a declaration of permanent neutrality of the basis of its foreign policy. For Iran, it is important that the neutrality serves as a deterrent, allowing distance Ashgabat to participate in the international block structures. In addition to the other, this line is the Iranian-Turkmen relations underpinned by objectively beneficial to both sides of the existing economic relations [1]. *Iran-Uzbek relations.* With Uzbekistan Iran the most complex relationships in the region. From the first years of independence Uzbekistan feared that the Iranian presence in Central Asia will be the impetus for the revival of the country's Tajik culture and nationalism, which could potentially lead to the speeding up of separatism in Bukhara and Samarkand, and saw in relations with Iran a serious channel penetration in Uzbekistan Islamic influence.

In addition, Uzbekistan has also tried to enhance its reputation in the eyes of the West, setting themselves in opposition stronghold of Iranian and Russian influence in the region, and embarked on a path of open hostility toward Iran. When in 1995 the US Congress introduced economic sanctions against Iran, Uzbekistan, the only post-Soviet states openly supported the measure. Tehran, for its part, on occasion criticized the actions of the Uzbek authorities in relation to the Islamic opposition. In general, the main motive in the relations between Iran and Uzbekistan in the 1990s. It was mutual suspicion and mutual distrust. But in recent years, Uzbek President Islam Karimov has increasingly expressed interest in developing cooperation with Iran.

The countries developing economic and trade cooperation, they agreed to develop relations in the field of agriculture, transport, mining and processing of oil and gas, construction, pharmaceuticals and banking. In 2008, the volume of Iranian-Uzbek trade turnover exceeded \$ 600 million. Uzbekistan exports to Iran cotton, ferrous and nonferrous metals, mineral fertilizers, Chemical Fiber and other products. Iran has supplied to Uzbekistan building materials, detergents, food, tea, fruits and other goods.

*Iran-Kyrgyz relations*. Bilateral relations between Iran and Kyrgyzstan are developing, in general, quite smooth and not particularly dynamic. The two countries signed a number of agreements in the field of transport, customs, trade and economic sphere, a lack of cooperation in the field of education, culture, tourism, customs, finance, the fight against drugs and organized crime. The Parties shall provide each other industrial goods and agricultural products. Tehran occasionally allocates millions Bishkek grants and investments. Every year a growing number of government scholarships allocated by the Iranian Government for Kyrgyz citizens wishing to study in the universities of Iran. Some Kyrgyz universities are functioning centers of Islamic Studies and Iranian Studies, established direct links between the major universities of the two countries. The Iranian side has made participation in the creation of textbooks for secondary schools of Kyrgyzstan [2].

*Iran-Tajik relations.* Iran was one of the first countries to recognize the sovereignty of Tajikistan, however, is true of the other former Soviet republics in Central Asia. In January 1992, Iran opened an embassy in Dushanbe. Embassy of the Republic of Tajikistan in Tehran has been operating since July 1995 The two countries are connected, first of all,

common language, history, culture and traditions, although the Soviet period, which had a serious impact on the lives of the people of Tajikistan, alienated them from each other.

After the collapse of the Soviet Union in the early 1990s. of the Tajik intelligentsia saw in Iran is a model for future development of their own country. Iran has contributed greatly to the completion of the civil war, marching in Tajikistan in 1992-1997. Assisting in conducting the inter-Tajik talks and trying to take a neutral position of the Islamic Republic of Iran has provided humanitarian assistance to the warring parties. However, we must not forget that the Tajiks, unlike the Shia-Iranian Sunni Muslim, and even if power in Tajikistan came the Islamists, their policy would not have been coordinated with Iran.

Today, Iran is the second – after China – the largest investor in Tajikistan. In Tajikistan, regularly hosts international symposia and seminars on Persian language and literature, created the Foundation of the Persian language, Iranian agents built Rudaki and Amir Kabir library. Representation Committee Imam Khomeini in Tajikistan with the assistance of the local authorities to ensure that members of poor assistance in the mass of family and religious ceremonies. On the quest for closer cooperation of Iran and Tajikistan, it is evidenced by the fact that both countries dream of creating a Farsi-language union of states, in which, apart from them, and to come in Afghanistan [2].

*Iran-Kazakh relations*. Iran is not a strategic partner of Kazakhstan, but the two countries are actively developing mutually beneficial cooperation in various fields. For Iran, Kazakhstan is of interest as a country with industrial, agricultural and scientific potential. Because of this republic Tehran imports grain, petroleum products, metal products. In turn, Kazakhstan is interested in realization of joint oil and gas projects in particular, such as the construction of the pipeline Kazakhstan-Turkmenistan-Iran (Persian Gulf), so that Astana could gain access to the Asian markets. Kazakhstan would also like to see the Iranians as investors in mechanical engineering, infrastructure, transport, telecommunications. For the trade turnover between the two countries in the past six years has increased five-fold – from \$ 400 million to more than \$ 2 billion.

Iran is interested in Kazakhstan as a state, which can take an active part in solving the Afghan situation, because it disturbs the Kazakhs in terms of powerful streams of drug trafficking through their territories [2].

**Conclusion.** Thus, Iran's Central Asian policy in all post-Soviet period can be characterized as a sufficiently high level balanced. However, it should be noted that currently in Central Asia has been a marked decrease in Iran political impact. This is due primarily to an increase in the threat of the Islamic Republic of Iran by the United States.

At the present time in connection with a significant change in the military-political situation in the region of the Middle East to Central Asia, Iran's main foreign policy priorities are: the creation of close, mutually beneficial and trusting enough political and economic relations with the countries of the region; preservation of political influence in Tajikistan; preservation of good relations with Uzbekistan; gathering information on the possible use of the territory of the Central Asian countries of the CIS region in the US military and intelligence actions against Iran.

#### Reference list:

- Iran's regional policy in the post-Soviet space // Center for Strategic Assessments and forecasts [Electronic resource]. – Access: http://csef.ru/ru/politica-igeopolitica/484/regionalnaya-politika-irana-na-postsovetskom-prostranstve-4207. – Access Date: 10.28.2016.
- Iran and Central Asia: an overview of relations // news agency «Fergana» [Electronic resource]. Access: http://www.fergananews.com/articles/6130. Access Date: 10.28.2016.

# RESULTS OF THE FIRST FIVE-YEAR PERIOD INNINGS AKP IN TURKEY (2002–2007)

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After the ban in June 2001 pro-Islamic Virtue Party in the ranks of its former members there was a split in the «traditionalists» and «renewers». The first established the Party of Happiness (Saadet), headed by R. Kutani, and the latter created the Party of Justice and Development (AKP) led by Recep Tayyip Erdogan. It is the latter, positioned themselves as supporters of «moderate Islam», threw a strong challenge to his political rivals in the elections in 2002, the program offered a broad democratization of Turkish society, economic reconstruction and the financial recovery with a priority to accelerate the entry into the EU. The purpose of research – to reveal the results of the moderate Islamists in the first five years of their stay in power in Turkey (2002–2007).

**Material and methods.** During the work on the theme of the study were drawn are publicly available documents relating to the internal and foreign policy of Turkey. Of the methods of scientific research the author has involved the analysis, as well as historical and systematic, historical and genetic methods.

**Results and discussion.** The parliamentary elections held November 3, 2002, completely changed the deputies of the Grand National Assembly of Turkey (TBMM). It was not included none of the parties, before participating in the highest legislative body. In this case Justice and Development Party,

gaining 34% of the vote, won 363 mandates out of 550. The second was the Republican People's Party Deniz Baykal – 19% of the vote and 177 seats. All the other parties have not overcome the 10% barrier. Thus, after the elections the AKP has received the required majority to form a one-party government and was able to smoothly proceed with the implementation of his election program.

The program includes a one-party AKP government submitted to Parliament 23 November 2002 Deputy R. Erdogan's party Abdullah Gul (Abdullah Gixl), emphasized the link between economic and democratic development of the country with the problem of Turkey's accession to the EU. With these goals united fight against crime in the field of economics, including corruption. The program is offered to modernize the laws on political parties, elections, legislative acts in the field of economics, criminal law, and as a result of the legislative process to adopt a new constitution [1].

After winning the by-election to parliament in March 2003, he became Prime Minister Erdogan. Tightening with the issue of his parliamentary mandate was due to the fact that in 1998, when the mayor of Istanbul, he was sentenced to 10 months in prison for pro-Islamic undertones of one of his speeches, which was characterized by the court as incitement to hatred and hostility. According to Turkish law, he could not run for Parliament as a man who had been convicted for political reasons. After the adoption of the new parliament amendments to the Criminal Code Erdogan became a full deputy to the Great National Assembly.

During the first five years in power, the AKP, GDP growth was 7,5% per year. The national income of the country rose to \$ 400 billion. The growth of inflation fell from 45% in 2002 to 8,5% in 2007 was implemented large-scale social programs, including pension reform, to ensure the indexation of pensions depending on prices, wages increased growth in the manufacturing sector, the expansion of health and education services. With 45 to 35% has been reduced top rate of personal income tax and the tax rate on corporate income in 2006 was reduced from 33 to 20%. From 18 to 8% decreased as the value added tax on such goods and services, like medicines, basic food, clothing, medical and tourist services. At the same time, increased taxes on alcohol, cigarettes and luxury goods [2, p. 34].

To overcome the effects of crisis of the early 2000s. managed by a tightening and restructuring of tax policy and strict implementation of the IMF program, has provided significant financial support to the country. A major role in the replenishment of the state budget has played successfully on a number of major privatization program, including energy, enterprises. For comparison, if in the first years of the implementation of the privatization program (1985–2002), State revenues from privatization of state property amounted to \$ 8 billion., Then in the period from 2003 to 2007, they rose to 30.6 billion. The government AKP succeeded also increase the inflow of

foreign investments, which at the beginning of 2000s. less than \$ 1 billion. annually. In 2006, they amounted to 20,2 billion [2, p. 37]. All this has allowed the government to reduce the 2007 budget with a surplus of 6,5%. Gold and foreign currency reserves increased - from \$ 27 billion in 2002 to 65 billion in 2007.

The main foreign policy priority of the Turkish policy during the election campaign in 2002 proclaimed the accession of Turkey to the EU. Formal negotiations on Turkey's accession to the EU began in October 2005. However, it was immediately clear that in this way Turkey face severe, and possibly insurmountable obstacles. In December 2006, 8 of the 35 areas under the pretext that she refuses to normalize its relations with the Republic of Cyprus, which is a member of the EU Council of the EU for Foreign Affairs decided to freeze talks on rapprochement with Turkey [2, p. 118]. At the same time it was noted that Turkey goes in the right direction to get closer to European standards, introducing democratic changes to the constitution, judiciary, civil and penal codes, improving the position of minorities and limit the military's role in government.

In contrast to the Turkish-EU relations, as well as a cooling of Turkish-American relations, caused by the failure of the Turkish parliament to give the United States an opportunity to open a second front against Saddam Hussein's troops from the territory of Turkey in 2003, Turkey and Russia relations gained a new momentum in the development of after coming to power of the AKP. In December 2002, Erdogan made his first foreign visits. After Washington, he visited Moscow, where he said Turkey's willingness to develop a multi-faceted partnership with Russia. In 2004, Turkey visited Russian President Vladimir Putin. It was the first official visit of the Russian President for the whole period of the Russian-Turkish relations. In 2005, Putin again visited Turkey to participate in the opening of the 1200-kilometer gas pipeline «Blue Stream», which allowed to increase Russian gas deliveries to Turkey of 16 billion cubic meters. per year. In general, the Russian-Turkish trade turnover in 2007 grew to \$ 25 billion, which turned Russia into second after Germany trade partner of Turkey (this place preserved and Russia in the coming years).

Despite all the successes and achievements in domestic and foreign policy, the AKP could not have complete freedom of action as long as the country's president was Ahmed Sezer. Once in 2007 tenure as president A. Sezer expired, the AKP tried to hold on to the post of one of its leaders -Abdullah Gul, who was at that time Minister of Foreign Affairs. However, during the voting in the Great National Assembly he did not have the votes, and after several unsuccessful rounds of voting the government adopted a decision to hold early elections. These elections took place July 24, 2007 the AKP won a landslide victory (46% of the vote and 341 of 550 seats in parliament). Question about the changes the procedure for electing the President was put to a national referendum, which took place on October 21, 2007 Changes for which 75% were in favor took part in the vote, provided for direct election of the president of the country, reducing the term of office of the head of state from 7 to 5 years, and injected position the possibility of re-election of the persons previously occupied the highest office in the country. Also Turkish citizens were in favor of reducing the powers of Parliament (TBMM) from 5 to 4 years. As a result of the vote held in the Great National Assembly after the election of new deputies new president became Gul, who was last elected under the old rules.

**Conclusion.** Thus, during the first five years in power, the AKP has managed to reverse the negative trends in the development of the Turkish economy and finance. In contrast to the successes on the economic and social direction of its policy, the AKP failed to make substantial progress in the priority foreign policy issue of Turkey's accession to the EU. However, a new impetus in the development received Turkish-Russian relations. Russia has become the second after Germany trade partner of Turkey.

#### Reference list:

- 1. Party programme [Electronic resource]. Access: http://www.akparti.org.tr. Access Date: 04.07.2016.
- 2. Modern Turkey: a chronicle of political life (2002-2006) / Ed. AA Kolesnikov, OV Rogoza, AI Pylev. Bishkek: Publishing house KRSU, 2006. 213 p.

# THE ARTISTIC HERITAGE OF Y.M. PAN

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Yudel Moiseevich Pan was an outstanding pedagogue, and he was raised on the traditions in the period of mobile art exhibitions. In 1896 Yudel Pan opens his private studio which is considers to be the first art school in Belarus. In fact, many years of efforts, Y. Pan was established that fertile soil on which to grow the tree art school. Essentially, only with help of long standing efforts of Y. M. Pan the fertile ground was created and the Art Institution tree was to be grown. Unfortunately, Y. M. Pan's art is famous for a small group of people only. For example: artists, art historians, culturologists. But for a lot of tourist, Y.M. Pan is known as just the first teacher of Marc Chagall. However, in these latter days people start to appeal to the art heritage of the artist.

The aim of given article is the scrutiny of Y. Pan's art. Also, we can note that the art of Y.M. Pan could be a new brand of Vitebsk and the theme of his art and heritage is urgent and should be further developed.

The purpose of given article is the scrutiny of Y. Pan's art. Also, we can note that the art of Y.M. Pan could be a new brand of Vitebsk and the theme of his art and heritage is actual and is to be further developed.

**Material and methods.** In writing this work were used the articles of Belarusian and Russian artists, electronic resources, personal experience of the researcher from conducting tours, as well as the following methods: analysis and synthesis, comparison, historical and logical, historical, comparative, descriptive method.

**Result and discussion.** On the 5 of June there was a 152 years since Y.M. Pan's birthday. He was the real legend, who glorified our town. Early orphaned, since 1867 he was working as an art prentice in Dvinsk (later – Daugavpils, Latvia). In 1879 he moved to St. Petersburg. His teachers were P.P. Chistyakov and H.A. Laverezkey. After Academy he was living in Dvinsk and Riga, then acquainted with a baron N.A. Korf, who invited the painter to his Vitebsk estate, where the friends of the baron – I. Repin, U. Klever and others happened to visit [1, p. 129].

In 1891, Yudel Pan settled in Vitebsk and a year later opened his private school of painting and pictorial art, which existed till 1919 – it first Jewish art school in Russia, which was converted by Marc Chagall into Vitebsk Art Academy, existed until 1941. Raymond Brainin, Lazar Lissitzky, Eva Levina-Rozengolts, Ilya Mazel, Oskar Meshchaninov, Yefim Minin, Ossip Zadkine, Marc Chagall, Helen Kaiser, Zaire Azgur, Solomon Yudovin, David Yakerson were Y. M. Pan's students. In 1907 and in 1914 exhibitions of Y. M. Pan and his students were holding [1, p. 132].

Y. M. Pan created thousands of paintings, portraits, sketches of live of township Jews. The forte of the painter is composite portraits. He painted as a straight recurred of portrait art of I. Hruzkey and Y. Silivanovich.

A lot of attention was given to the description townspeople mode of life. The showers of folk culture, decorative work and careful out writing minor details are shown in his work named "Swat". One of the most striking paintings is "the matchmaker," in which traits of folk culture. Almost all of the central part of the composition is taken by the figure of the matchmaker, the creator of folk rituals and holidays. The hero stands on the street of township, thinking about the plan of his combination one more time and a hard wore of thought reflect on his face. Tricky glance looking into the distance and a sly smile. The author always played attention to the second plan of a painting. And there, over the hero's back – the 2 wooden houses – the 2 modes of life – the Belarusian and the Jews. And mandatory attributes of a poor life: a skinny goat near Jew's house, a piggy – hope for a weel-fed tomorrow of Belarusian [2, p. 201].

The composition "Divorce" is one of many multi-figure works of compositions of Y. M. Pan. A painting is psychological to the core. A woman is in captivity of her thoughts, strained, clasped hands on the rocks, a face

eyes is frozen painted with matt-white colors. A yellow scarf around her face gives the image a kind of softness. This is the example on Y.M. Pan's art, in which calisthenics and coloring are presented. Figure of woman and her resentful husband turned to rabbis seated at the table with an opened book. Their faces, clothes, boots are painted in details masterfully. They are opened to the viewer: we see wrinkled foreheads, attentive eyes, gray beards. At the background there are a few interested figures, pending a final decision.

All of the Pan's portraits and paintings revive us bygone types and characters of craftsmen: watchmakers, clothiers, cobblers. A good knowledge of life of craftsmen to show them in a concrete working atmosphere, profoundly and pathetically reveal their spiritual world, their secret dreams, their sadness and joy. The philosophy of time is embodied by Pan in the painting called "The Watchmaker" (1929). At the table in the workroom there is a sitting master, putting in motion clock hands. All of the details of the picture are carefully written. And yet in the first place Y. Pan sit not the form of the model, but his ambiance. We should note that in years of 1920 there is a completely different type of portraits objective world and heroes are pouring into a single image. Y. Pan finally receded from academic canons of space building, features of folk cultures dominate in his works with an interent form detalisation, and a domination of texture effects [3, p. 33].

An idol of Pan's life was Rembrandt. Portraits wrote in a Rembrandt's style are allocated with its expressiveness and dramatic checkered light and shade. Pan's "oldmen" and "old woman" might be a real citizens of Vitebsk and a collective image. In his paintings a depth of psychological characteristics mixed with an exceptional skill of painting.

In 1927, Y. Pan was awarded as a "Honored Jew painter of Vitebsk". In 1939 a picture gallery named after Y.M. Pan was opened. A painter left a legacy to the town with a total number 800 works. In years of the Great Patriotic War a large part of the collection was lost and Pan's preserved works were at the State Art Museum of BSSR. In 1992 it has was returned to Vitebsk [3, p. 19].

**Conclusion.** Nowadays the external Pan's exhibitions at works in Vitebsk Art Museum is a tribute to the artist, an admiration to his work and his talent. Here, in Vitebsk is the largest collection of paintings by Y. Pan, so Vitebsk may become a Mecca for art lovers. Moreover, for several years, the city is working on the creation of the museum of Y. M. Pan, in which the creative heritage of the outstanding masters will be presented. In this context, it sounds prophetic lines from the letter M. Chagall addressed to the first teacher "You are the first in Vitebsk. The town will not be able to forget you. I convinced that Vitebsk, that look 25 years of your life deservedly sooner or later will perpetuate your hard work. The best works of yours ... will be gathered ... in a future Vitebsk museum" [3, p. 244 - 245].

#### Reference list:

- 1. Vitebsk school-workshop Y. Peng / Belarusian encyclapedia: 18 t / G. P. Pashkov. Mn., 1997. T. 4. P. 225.
- 2. The fine arts of Vitebsk of 1918-1923 years in local periodicals: bibliography. decree. and texts publ. / comp. V. A. Shishanov. Minsk: Madison, 2010. 264 p.
- 3. Shatskikh, A. S., Yuri Moiseevich Pen. Life and work / A. S. Shatskih Vitebsk: Life of art. 1917–1922. Moscow: Languages of Russian culture, 2001. 256 p.

# SPIRITUAL AND MORAL EDUCATION OF THE MILITARY FORCES' PERSONNEL OF THE REPUBLIC OF BELARUS

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Spiritual and moral education involves the formation of moral and valuable concept of mastering the best examples and experience of human culture at the level of universal, national-ethnic, military and personal-humanistic values. Achieving this goal is possible due to active collaboration of three types of officer-improvement technology: education, self-education and IT.

The relevance of this research lies in the fact that we, as future officers, have an opportunity to comprehend the spiritual, moral and psychological suppositions for successful operations, and, consequently, the entire system of educational work in the Armed Forces.

The aim of the research – to gain a clear idea of the structure of educational work, forms and states of our further activity in improving the spiritual and moral education of the subordinates.

**Material and methods.** During the research we used such materials as Manuals of military laws and such methods as observation and generalization.

**Results and discussion.** To carry out the tasks in military conditions soldiers should receive such education, which has a special military focus. Military education is a purposeful activity of commanders and headquarters in the formation of soldiers' spiritual qualities that reflect the specific features of the army, its tasks and purpose. In unity with all the other fields of education, military education develops and forms qualities necessary for a warrior to protect the Motherland.

During the military training such qualities, which are always necessary for a soldier, are formed, but especially during the execution of the tasks in combat conditions. They are - perseverance, courage and honor.

The content of military education is determined by the military oath, which in concentrated form contains requirements for a homeland defender, and manuals of military laws governing the everyday life, the functioning of the army at war time. This is a serious document as it is examined and affirmed at the highest state level.

The main components of military education are:

-instilling in soldiers deep understanding of the historical mission of the Armed Forces, the features of their construction, functioning and completing facing them tasks, particularly to maintain high combat readiness;

-forming in the personnel unswerving loyalty towards military oath and manuals of military laws, steady subordination to its requirements both in peace time and in war time.

- The development of a permanent aspiration to mastering military occupations, his military profession, to the excellent mastering of military equipment, weapons and methods of their usage;

- development of high military discipline and unquestioning obedience, strengthening of military comradeship;

- formation of moral and combat qualities, which are especially necessary in combat, perseverance, courage, honor, ability to endure the most severe trials in order to achieve victory over the enemy;

- education of personnel in the spirit of pride to belong to the Armed Forces of Belarus, its military base, desire to develop and enrich combat customs.

During the process of moral education notion of discipline as a military duty forms in the hearts and minds of servicemen. Lawful education develops their respect towards the laws that underpin the rule of law in general and in the army particularly.

Special importance is given to officers' personal example.

Military education minds promotion of combat customs. Mastering these high spiritual values firstly secures the succession in building up personnel's high morale and combat qualities, which promotes awareness of one's duties. Secondly, this powerful means of influencing the minds and hearts of soldiers actively contributes to the perception of the heroic deeds, accomplished during battles for the Motherland, as examples to everyday emulation. That is why combat customs are of great importance in the whole process of military education.

Thus military upbringing is purposeful process of formation of moral and combat qualities of the state armed defenders. In unity with the moral, lawful, labor, aesthetic and physical education, military training is necessary condition for development of soldier's personality, consolidation of moral spirit, improvement of the combat power of the Armed Forces, the successful fulfillment of the objectives, both during peacetime and war, if unleashed.

**Conclusion**. In combination with the powerful state and ideological support, system of spiritual and moral education contributes to the transformation of modern armies into reliable policy instrument of their nations.

Such moral qualities as unbending confidence in defeating the aggressive enemies, courage, heroism, readiness to self-sacrifice, military fellowship and mutual assistance in battle are of great importance in combat situations.

Education and formation of all the qualities listed above is not only the most important task of the commanders and educators, but also a complete set of preconditions for the effective training and combat operations, which are consolidated in the soldier's preparedness and ability to get the victory in the battle.

#### Reference list:

- Manual of military laws of Internal Service of the Armed Forces of the Republic of Belarus. Minsk: The National Center of Lawful Information of the Republic of Belarus, 2015. – 234 c.
- Disciplinary Manual of Military Laws of the Armed Forces of the Republic of Belarus. Minsk: The National Center of Lawful Information of the Republic of Belarus, 2015. – 194 c.
- 3. Kulokova V.F. Military Psychology and pedagogics / V.F. Kulokova Minsk: Voenizdat, 1998. 176 c.

# ASEAN-CHINA: CONFRONTATION AND COOPERATION IN SOUTH-EAST ASIA

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In modern international relations, South-East Asia (SEA) is playing an increasing role in the geopolitical and economic importance. This region, with a total area of 4 million sq. km and a population of 593 million. pers., is the fifth after the US, EU, Japan and China's global financial center.

Located at the intersection of traffic flow, South-East Asia plays a role of a bridge between the countries of South Asia, Middle East, Africa, Europe and Asia-Pacific countries, China and South Korea. In a globalized world, to strengthen the integration processes in South-East Asia there is a change the balance of power. The main contenders for leadership in Southeast Asia should be regarded as China and the Association of South-East Asian Nations (ASEAN).

The purpose of research – to identify the benefits for regional leadership in South-East Asia from China and the ASEAN bloc.

**Material and methods.** The study was used scientific functions (description, analysis, synthesis) and special historical (historical and systematic, historical and typological) methods, as well as materials research of modern Russian scientists.

**Results and discussion.** The relationship between these power centers are sufficiently specific and ambiguous. During the bipolarity one of the objectives of the ASEAN member states was to maintain neutrality in the

region, carrying out the policy of containment of Soviet influence, the United States and China. While China, playing the role of «third force», the United States and the Soviet Union an alternative, trying to expand the sphere of influence in Southeast Asia through the ideological, economic and military support to the Maoist Communist movements in Indonesia, Malaysia, Thailand [1, p. 146].

However, in the new geopolitical conditions, the situation is changing. On the one hand, China and ASEAN are changing their approaches in South-East Asia, are moving away from ideological confrontation, begin to pursue a policy of cooperation, based on the economic benefits and rationalism in the format of ASEAN + 1, cooperate with Japan, South Korea, ASEAN + 3, and develop a relationship with United States, APEC countries. On the other hand, between the ASEAN and China retained the territorial disputes, the parties are not only economic partners, but also competitors, there are geopolitical differences, differences in the approaches to the development of integration processes in the region. This, in turn, is a manifestation of the duality between the ASEAN and China, which is characterized by both cooperation and confrontation.

Today, the position of ASEAN and China in the same vision of the geopolitical situation in South-East Asia. In particular, both players do not wish to maximize the United States, Japan, in the region. All 10 ASEAN members support the «one China policy», not recognizing Taiwan, while China was in favor of further strengthening the ASEAN, seeing it as a guarantor of stability and security in the region. China impressed and the reluctance of the majority of members of ASEAN military presence of foreign states in its territory, with the exception of the Philippines, who are actively cooperating with the US against Islamic terrorism [2].

On the other hand, players have very different vision of the essence of the modern world order. For example, ASEAN stands for multilateralism as the foundation of the world order, which is the absolute equality of all states, regardless of their geopolitical potential in solving problems through collective efforts. China, in contrast to the ASEAN, supports the idea of multipolarity in international relations, there are several «centers of power» with the responsibility of sharing in some regions.

It is also an object of the confrontation between China and some ASEAN countries (Vietnam, Philippines) are the Paracel Islands and Spratly Islands [2]. On the one hand, ASEAN is concerned about the current strengthening of China's military capabilities in the development of the Navy, as part of the ASEAN does not exist yet formalized the organization of collective security. On the other hand, there is a military-technical cooperation of China and Thailand, consultations between China and ASEAN on security and strategic planning in the framework of the ASEAN Regional Forum [1, p. 212].

**Conclusion.** Based on the analyzed aspects of the relations between China and ASEAN, we can see that at the moment China has certain advantages in capacity, compared with ASEAN. First, China is a centralized mono-ethnic state, in contrast to the ASEAN, which includes a variety of state in economic development, political system, not to mention the ethnic, religious, socio-cultural differences. Second, China's economy is more powerful than ASEAN, where they still are in the process of formation of a single economic space. Third, China has significant demographic, economic leverage on ASEAN. Fourth, military capabilities are disparate both players – the largest in the world People's Liberation Army is 2.25 million people, while the military forces of individual ASEAN countries do not even integrated into a system of collective security.

Despite a number of benefits for regional leadership in China, it is impossible to speak of the absence of such prospects for ASEAN. In the case of strengthening economic and defense integration of the Member States and the resolution of internal conflicts between them, the ASEAN will be able to claim the role of one of the «centers of power» in a multipolar world.

### Reference list:

- ASEAN at the beginning of the XXI century: Actual Problems and Perspectives / Ed.: E. Kobelev, G.M. Lokshin, N.P. Maletin; The Institute for Far Eastern Studies. – M.: Forum, 2010. – 368 p.
- Shlyapina, S.A. China ASEAN countries: territorial disputes in the South China Sea / S.A. Shlyapina // Ecumene. Regional studies research. – 2013. – № 2. – S. 10–18.

# ORSHA MUSEUM OF V. KARATKEVICH, AS AN EXAMPLE OF THE FUNCTIONING OF LITERARY MUSEUM

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In today's world, people are increasingly drawn to the museums not only to gain knowledge but also to have a recreation and pleasure. Museums, in turn, try to use current trends to increase the flow of visitors, participating in various festivals, creating an unusual exhibitions, which allow in an unobtrusive form or in the form of game or quest, to learn the material. Museums try to develop a more systematic cooperation with travel agencies. Museums divided into many thematic profiles, one of which is a literary museum. Consideration of the museums dedicated to literature, writers and their works is actual field for research, as these museums attract visitors and could be considered as brand of the region. So these museums don't lose their popularity nowadays. The purpose of this article is to examine the activities of Orsha Museum of V. Karatkevich as an example of the functioning of literary museum.

**Material and methods.** In writing this work were used websites Museum Complex of History and Culture Orshanschiny and Orsha Museum of V. Korotkevich, the articles describing the main directions of work of the museum and the history of its creation. In the study were used following methods: descriptive and analytical, statistical, comparative benchmarking, methods of analysis and synthesis.

**Results and discussion.** First of all, it should be noted that there are two forms of the activities of literary museums: historical literary and literarymemorial. Historical and literary materials are collected and analyzed, revealing the development of literature in the historical aspect, and are engaged in the theory of literature. The literary-memorial museums include memorial complexes (buildings, apartments, manor house, things that belongings of the writer, as well as manuscripts, autographs and documents, lifetime editions) and literary exposition telling about the life and work of the writer. In addition to exhibits of memorial objects using visual materials – photographs, paintings, prints.

The Belarusian land is famous for its well-known writers and poets. In many cities of the country are open museums dedicated to outstanding fellow countrymen. One of these museums is the Orsha museum of V. Korotkevich (branch of Museum Complex of History and Culture Orshanschiny). The history of the museum dates back to 1994, when the museum "Our famous countrymen" was created. One section of the exhibition of the new institution was planned to devote Vladimir Korotkevich. But in 1995, was received a proposal from the Union of Writers of Belarus to create in Orsha museum dedicated to the famous native of the town. In 2000 was the 70th anniversary of the writer's birth and in this year was opened museum building [1].

The museum is housed in a historic building of the late XIX – early XX century, where after the Revolution housed a maternity hospital in which was born the future writer. The exposition occupies two halls on the ground floor. The first hall tells the story of life and the beginning of the career of the great writer. The exhibition under the title "Portrait of the writer and the man" presented a creative writer's workshop – a fragment of the Minsk office of his apartment, furnishing of post-war homes on the Cosmonauts street, where the writer's parents lived and where V. Korotkevich resided from 1956 – 1958 years, correspondence with friends and family, the first printed poetry. In the year 2005 was opened the second hall dedicated to the literary heritage of V. Korotkevich. Today, the exhibition presents about 640 objects. The most valuable of them are the writer's personal things, documents, manuscripts of works and the illustrations of the author [3].

One of the elements of the museum is a research center. It includes a research library, educational materials and a workplace for researcher. Thus,

any visitor can act as a researcher: to hear the unique recordings of V. Korotkevich voice, musical works of Belarusian artists on his poems, watch films written by the V. Korotkevich poems, work in the library. So the excursion transformed from passive observation to active acquaintance with exposition. On the second floor is an art gallery [2].

A feature of this museum is the symbolism of many exhibits. Only the visitor familiar with the work of the writer could decrypt the symbolism of the museum. Also in this museum tourist can find the exclusive items, for example, a book with pictures of the writer "The would through the V. Korotkevich's eyes".

**Conclusion.** Orsha Museum of V. Karatkevich is one of the most famous literary museums in the Republic of Belarus. Cleverly constructed exposition allows the visitor not only learn something new and see exclusive content, but also feel itself the researcher, plunging into the world of the life and works of the author. This institution encourages the visitor not just look through presented exhibits but explore the museum itself, its imagery and its idea. The museum also looks attractive for visitors from abroad, holding international conferences, and cooperates with countries such as Japan, Poland, Lithuania, Ukraine, Russia, Germany, Sweden.

#### Reference list:

- 1. Literary museum // Encyclopedia Krugosvet [electronic resource]. 2015. Access: http://www.krugosvet.ru/enc/literatura/muzei-literaturnye. Date of access: 10.10.2016.
- Orsha museum of V. Karatkevich // Museums.by [electronic resource]. 2016. -Access: http://museums.by/fotoreportazhi/muzey-korotkevicha.html. - Date of access: 23.10.2016.
- 3. Orsha museum of V. Karatkevich // Orsha.museum.by [electronic resource]. 2016. Access: <u>http://orsha.museum.by/node/32910</u>. Date of access: 21.10.2016.

### FREE CRM FOR SMALL BUSINESS

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The modern concepts of business treated customers as business' life blood. According to Gartner Research notes in 2016 89% of companies will compete mostly on the basis of customer experience [1]. This largely explains Customer Relationship Management (CRM) software market growth that we observed lately. In recent Gartner study «Market Share Analysis: Customer Relationship Management Software, Worldwide, 2014» they have noted the worldwide CRM market grew 13,3% from \$20,4 billion in 2013 to \$23,2 billion in 2014 [2].

There are many different CRM products on the market. They differ by many attributes: proprietary or free license, open source or out-of-the-box, SaaS or on-premise, located in public or private cloud, free of charge or paid, costing from a few hundred to thousand dollars. When choosing appropriate CRM companies also need to take into account multiplicity of technical characteristics: features and functions for contact management, communications, activity scheduling, sales and opportunity management, reports and data analysis; data import/export; integrations with popular social networks and office applications; degree of customization; supported languages etc.

Inherently, free software is a matter of liberty, not price: users, individually or collectively, are free to do what they want with it. Free software is also different than freeware, which is a category of freedom-restricting proprietary software that does not require payment for use.

With a view to finding solutions for small businesses it is advisable to refer to a freeware CRM segment. It's mainly represented by the free versions of SaaS CRM, which include a limited set of functions. As a rule, these are limited number of free users, free contacts, free online storage, support service functions etc. In order to partially or completely remove limits, one should buy one of the proposed upgraded tariff plans. There are quite many SaaS CRM offering the simplest one tariff plan for free.

**Material and methods.** For study and comparative analysis, we chose three widely used SaaS for CRM: Bitrix24, zoho and safe. To explore each of the chosen SaaS CRM for subsequent comparative analysis I've developed the following algorithm of actions:

1) to study the information on SaaS CRM provider official website;

- 2) to analyze articles and user reviews about a considering system;
- 3) to subscribe for a free tariff plan and use SaaS CRM in a test mode.

**Results and discussion.** To make results of studying and testing suitable for comparison, it is necessary to develop the system of criteria. In various CRM comparison surveys authors use different criteria. I've analyzed the approaches of different authors and developed the following set of criteria for this research.

1. Short information about SaaS CRM provider.

2. Date of the first release (to access for how long the product is on the market).

3. How considered SaaS CRM is positioned by the service provider. For what user segment of CRM market the service is designed.

4. Reviews of SaaS CRM in competent media.

5. Number of customers according data on the CRM official website.

- 6. Ease of use (based on my personal practical experience).
- 7. Key features (based on the information on the CRM official website):
  - free users;
  - free contacts;
  - free online storage;
  - free CRM options;
  - free integrations;

- free mobile version;
- availability of SaaS CRM version in Russian.
- 8. Price for upgrade (tariff plans with a subscription fee).
- 9. Free support (including the availability of support in Russian).

10. Customers reviews (generalization of most marked advantages and disadvantages).

11. The author conclusion on the conditions under which the choice of the considered SaaS CRM is the most suitable one.

Based on the many different reviews of the considering CRM I've composed pivot comparison table 1.

Criteria	Bitrix24 CRM	Insightly CRM	Zoho CRM	
First release	2012	2012	2005	
Number of	Over 1 million	Over 800 000	Over 15 millions	
customers				
Multilingual /	Yes / Yes	Yes / No	Yes / Yes	
Supports Russian				
Free users (max)	12	2	10	
Free contacts	Unlimited	Unlimited	Unlimited	
Free online	5Gb	200Mb	1Gb	
storage				
Free CRM	Basic options,	Basic options,	Basic options,	
options	Comprehensive	Workflow automation,	Strong workflow automation,	
	reporting,	Web-forms to capturing	Web-forms to capturing leads	
	Document	leads and contacts	and contacts,	
	management,		Web-sites visitors tracking,	
	Cloud PBX		Comprehensive reporting	
Ease of use	Moderate	Easiest	Moderate	
Free support	Multilingual online	Online help center in	Online help center, email	
	help center and email	English	support in English	
	support			
Free integration	Rest API, Facebook,	Insightly API, Facebook,	Zoho API, Twitter,	
	Twitter, Google Docs,	Twitter, Google Apps	Facebook, Google+, Gmail,	
	MS Office and MS	for Work, Dropbox,	Google Calendar, Google	
	Office Online, MS	Google Drive, Gmail,	Tasks, 8 Zoho applications	
-	Outlook, Google	MS Outlook and more	and more	
	Calendar, Google			
	Contacts and more			
Free mobile	iOS and Android	iOS and Android	iOS and Android	
version	Fully featured mobile	View and edit records,	Includes most CRM features	
	CRM	but limited admin tools	and works offline	
Price for upgrade	From 12\$/user/month	From 12\$/user/month to	From 12\$/user/month to	
	to 109\$/user/month	99\$/user/month	60\$/user/month	
Best free solution	Companies with up to	Very small businesses	Companies with up to 10	
for	12 employees work	where just 1 or 2 people	employees work with	
	with customers,	work with customers and	customers and need scalable	
	especially ones in	need mainly managing	add on features	
	Russian-speaking	follow up and tracking		
	countries and	sales		
	communities			
Note: or	vn design			

Table 1 – Bitrix24, Insightly and Zoho CRM comparison

Note: - own design

All 3 compared CRM systems are well known SaaS in the free CRM market. But as can be seen from the table Zoho is the oldest and most popular one.

Bitrix24, Insightly and Zoho CRM are multilingual, but only Bitrix24 and Zoho support Russian. This significantly reduces the prospects of usage Insightly in Belarus. Bitrix24 CRM is developed, supported and promoted with the active participation of «1C» from Russia. So, they suggest all the information and support services in Russian and this is a great Bitrix24 advantage for Belarusian users.

If we compare free CRM capabilities, Bitrix24 is the most attractive one according the number of free users and free online storage volume. This CRM is also has some very useful options in addition to basic ones. Zoho CRM has less free users and less free online storage, but more additional options. But potential Bitrix24 and Zoho CRM users should have in mind that it takes time to get acquainted with these CRM – I've estimated ease to use for them as «modest».

Knowledge and practical experience gained in the preparation of this work, was applied for the development of practical recommendations to improve customer service for Belarusian small business company — a fitness club «Alisa Star».

Small business in the field of fitness is accompanied by a high level of competition. Customers have to choose from, so «Alisa Star» is making a lot of efforts to keep every customer and constantly attract new ones. Director Olga Dubikovskaya regularly organizes promotion activities, spending significant financial and human resources. It is very important to have the tools to objectively evaluate the effectiveness of such campaigns, as well as for the conversion of «interested» in the real customers of the company.

About 10 people in the company are involved in selling services to clients. They are dispatchers and administrators working in 8 geographically distributed branch offices in Minsk. These employees are responsible for telephone calls, selling tickets for fitness classes, keeping records of attendance. Today the company has about 1,700 customers. As for business process automation, «Alisa Star» uses «1C» software for accounting.

**Conclusion.** In my opinion, it might be worth using free CRM Bitrix24 for improving customer service in «Alisa Star». Because all the tasks will be fixed in Bitrix24 and appointed to the employees, they will be run as scheduled and the director will be able to easily keep track of it. Olga Dubikovskaya will have objective information about the work of employees with customers, including the recording of telephone conversations. Missed calls will be possible to automatically convert into new leads are distribute between employees that working with clients.

Currently, the issue of implementation in the work of the company "Alice Star" free version of Bitrix24 is under detailed study and test validation. References list:

- 1. Destination CRM [Electronic Resource] Mode of access: <u>http://www.destinationcrm.com/BestPractices/</u> Date of access: 20.03.2016.
- 2. Forbes [Electronic Resource] Mode of access: <u>http://www.forbes.com/sites/louiscolumbus/2015/05/22/gartner-crm-market-share-update-</u> <u>47-of-all-crm-systems-are-saas-based-salesforce-accelerates-lead/#14c00f2d4e6e</u> – Date of access: 04.04.2016.

# ON THE ISSUE OF MODERN PROBLEMS OF SOCIOECONOMIC DYNAMICS

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In a modern society, much attention is paid to the economic problems. This situation is on such a large scale that questions about the cultural development of a society, social policy, environmental issues, and etc. not only remain on the periphery of the economic issues, but in general are not considered to be independent or bearing a necessity to solve the specific problem, but secondary to goals of economic growth and development. This situation involves significant risks, as radically reorients the conception of the essence of economic relations. They are not seen as a specific part of social interactions due to challenges facing society, creating safe conditions for the full social development, but as autonomous, which exist under the laws of, due to the internal logic of the economic system.

The aim of the research is to analyze significant tendencies in current social dynamics with regards to the perception of economic growth and its subsequent influences on life.

**Material and methods.** The research is based on both early and modern philosophical thought (Plato, Hammurabi, Attali) and the concepts of current sociology. The determination of problem in terms of the socio-cultural development specificity of modern society as well as in terms of emancipatory impact on the economy in all aspects of social activities is based on specific methods (description, analysis, systematic approach).

**Results and discussion.** The approach to the problems of socioeconomic dynamics, oriented towards the emancipation of the economy on a foundation of social and cultural development, had developed in the European countries during the period of the new European society. A traditional society did not know the "clear logic" of economic relations. These relations were considered to be derived from interpersonal interactions, relations of power and hierarchical domination.

This statement is based on an analysis of the written sources, on the basis of which it is possible to explore issues related to the economic thinking

of the ancient people. The beginning of economic thought development coincides with the emergence of first civilizations: the Ancient East, the Ancient Greece, the Ancient Rome. In particular, the economic issues in the Ancient East were most commonly discussed in the treatises of government. It may be called the ancient Indian treatise on the administration of the state "Arthasastra" or "Policy of Science", the ancient Chinese treatise "Shang Yang" or "Book of Lord Shang", the Babylonian Code of Hammurabi (1792–1750), the main purpose of which was to create a system of legal standards for the effective governance. All these works contain references to the principles of economic relations, but not as an independent field of human activity, but as an integral part of social relations in general. At the other end of the continent – in ancient Greece – the beginnings of the economic thought can be found in the poem "The Odyssey" by Homer and "Iliad" in Hesiod's "Works and Days," in the works of Xenophon ("Oykonomos"), in the works of Aristotle, Plato.

In all these works the same trend can be traced – economic relations do not stand out as an independent field of study, and are considered as part of public relations as a whole, the leading of which are recognized as power relations (politics) and dignity (ethics). In other words, the principles of management are given socio-cultural principles of the historical origin, in which the economic activity.

In the modern era, we are witnessing a reverse trend, which is on the rise nowadays: the desire to take an independent niche economy, to rely solely on the internal logic of their own development and to question the objective economic laws and regularities. As a result, the scale of crises affecting the society is becoming larger, the complex indication of these crises (the economic crisis, the environmental crisis, anthropological crisis, political crisis, and so on. P.), points out that these are not only structural crises, but they can be identified as social crises of the system as a whole. Accordingly, the question about the grounds on which the modern socioeconomic system builds up its rules of functioning can be raised.

It seems that these rules are determined by the imperatives that govern the global financial capital. The process of development and expansion of financial capital of a non-independent intrinsic value can gain weight and significance only in a market where money can act as essential intermediaries, as well as a number of other functions (a measure of value, means of accumulation and so on. D.) that works in isolation from the natural needs of a man and society, not focusing on their satisfaction. Through the efforts of financial capital created today in an absolutely unsustainable economic system, suppresses the development of a real economy.

The functioning of capital has terms and conditions: strengthening of capitalist relations in a society (the division of labor, the role of private property, a significant impact of hired labor), the establishment of a world

(global) economy, the spread of an economy-centered normativity (with the focus on profits, income, psychology of the exchange, etc...) [2].

The development of social conditions conducive to the widening and strengthening of financial capital, will lead to the stagnation of a wide range of public relations, blocking social and cultural development. Since the purpose of the financial capital, according to the disclosed Marx maxim of its self-expansion, a society can't serve in other ways than a comprehensive market. A market in which any cultural sign can turn into a money sign, any inalienable object may become a tangible asset. In practice, this means converting the whole variety of social phenomena and relationships into a marketable commodity, on the one hand, and their instant exchange for banknotes, on the other. As a result, a society is quite likely to witness a situation that the French politician and philosopher Jacques Attali called "the era of money", "money way of life" [1].

In the light of these circumstances, it becomes apparent that the financial capital today is less linked to the actual production there is less necessity to learn the nature of the real and true to the problem of technology. In other words, it has no need in any related natural attitude of the society. It consists of a set of artificial constructs: the money pyramid, the symbols which have the network structure and the transnational corporations, where the bottom majority nourishes and augments the growth of a narrow elite. Therefore, the society is now, more than ever, no longer in need of large-scale developments that have emerged over the history of its existence. The number of social, cultural, political, and spiritual achievements, which the society was able to implement in the last two to two and a half thousand years, are unnecessary, redundant for the purpose of limitless enrichment, perceived as obstacles and additional "costs" in the affairs of hoarding, and are so cruelly undermined .

**Conclusion**. The quality of a modern life more clearly sets the world of quantity, turning human activities into a number or numbers, specific cash equivalents for a significant number of current social and cultural practices. These "digitization", "the economy of things" and "the money imperative" settings of a modern society are due to the economic relations and are shared in all the layers of a human life, with no exceptions. The centrism of this economic logic is the source of many crises in various fields of human activity, as it is aimed to reduce the expenses where required unprofitable commercially unjustified subsidies (for example, in the field of high technology, which is indispensable for the solution of many current problems, such as the lack of water, sources of energy etc.). Therefore, overcoming this economic logic's centrism is an urgent need for modern socioeconomic dynamics.

References list:

- 1. Attali, J. The Brief History of Future / Jacques Attali (Trans. from french). SPb .: Piter, 2014. 288 p.
- Semernik, S.Z. The economy-centered society: the nature and direction of development / S.Z. Semernik. – Grodno: YKSUG, 2015. – 297 p.

### MODEL "MUSEUM AS A CLUB" ON BASE OF MUSEUMS OF VITEBSK REGION

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Modern museums are often faced with the problems of attracting visitors. Due to the fact that constant exposure quickly become outdated for the residents of the city or region, museums have to seek other forms of activity, in order to attract the audience. For such cultural institutions as museum is also important to find and keep a constant audience that visits the institution for several years. One manifestation of the model "the museum as a club" for European museums are clubs "friends of the museum". In our country, the development of these forms is not received, however, the Belarusian museums also creates at its base clubs and societies, which in many ways are formed taking into account the specifics of the institution, so the topic under consideration seems actual.

The aim of this work is to identify the functioning such model of relationship between society and museum as "Museum as a club" on base of 2 museums in the Vitebsk region: Regional Museum named after the Hero of the Soviet Union M. Ph. Shmyrev and the Children's Museum (the branch of Polotsk National Historical and Cultural Museum-Reserve).

**Material and methods.** The official web site of the Regional Museum named after the Hero of the Soviet Union M. Ph. Shmyrev, the official web site of the Children's Museum (the branch of Polotsk National Historical and Cultural Museum-Reserve), personal experience and observation of the researcher, as well as the following methods: descriptive and analytical, statistical, comparative benchmarking, methods of analysis and synthesis were used in this research.

**Results and discussion.** In this article Museum named after M. Ph. Shmyrev and the Children's Museum of Polotsk are considered as the most unusual museums of the region and moreover the Children's Museum is the unique institution in the republic and Museum named after M. Ph. Shmyrev is the typical museum of the Grate Patriotic War, but at the same time this museum finds unusual forms of work with the audience.

Children's Museum of Polotsk created the weekend club for children and parents. The museum invites parents with children from 1.5 years. The children held gaming sessions on various topics that allow in an unobtrusive way to teach the child basic skills. These activities involve the participation in the work of the expert who directs, corrects, advises the participants during the class, contributes to the inclusion in the joint work of children and parents. Thus, the museum contributes to the preservation of the family, helping parents to spend more time with their children.

Another form of the museum on the formation of a captive audience advocate museum pedagogical sessions, which are held in the National Polotsk Historical and Cultural Museum-Reserve since the 1990s. By 2015, 6 programs prepared on the following topics: "Learning to look and see, listen and hear" (program for children 4 years old), "Museum Kaleidoscope" (program for children 5 years old), "History of the usual things" (for children 6 years old), "We came to the museum" (for children 7 years old), "My ancient city" in two parts for children 8 and 9 years [1].

Subject of museum studies selected according to the age characteristics of children. For example, 4-and 5-year-old museum visitors are provided a class "Learn to look and see, hear and listen" and "Museum Kaleidoscope". These programs help children master the world and surrounded by familiar things to do first steps. Naturally, at this age children are still not ready to accept a complex material and focused training data aimed at improving basic skills, as well as familiarity with the museum institution as a whole. For children 6 years old NPHCMR offers lesson "The History of the usual things", which helps young visitors to understand complex concepts such as time, weight, sound, understand how a person creates all that surrounds us every day, forming thus at baby beginnings of creative activity. The theme "We come to the Museum" is aimed at further acquaintance with the museum (from the wardrobe to the subject and the exposure), development in children related to the museum as a friend and not as a stranger, boring, official event of compulsory school curriculum. Rounding cycle museum-pedagogical training topic "My old city", which is supplied in two parts [2]. This program is designed for older children (8-9 years) and is aimed at the development of a child of the urban space, in fact, the event is developing in the child the skills of local history work and generates a sense of patriotism and love of country. Thus, the conduct of the museum and educational activities contribute to the development of a fully developed personality, in an unobtrusive way forms the basic social skills, in a simply way explains complex phenomena and processes surrounding the child's world.

Thus, the analysis showed that the museum is constantly improving their work with visitors looking for new approaches and new methods of work, the cooperators try to make the museum and the activities carried out as much as possible accessible and understandable to children, to achieve one of the key objectives of the institution – the younger generation of socialization Belarusians.

We analyzed the program of museum and educational activities carried out by museum cooperators since 2009. Each program consists of 9 sections, classes are held during the year 1 time per month [2]. Due to cyclical employees have an opportunity to introduce children to the large volume of information. Such frequency contributes to the formation of the child discipline and sense of responsibility. At the same time episodic of classes does not tire and does not cause unpleasant associations with the museum institution.

If we turn to the work of the Regional Museum named after the Hero of the Soviet Union M. Ph. Shmyrev, then we can also note the organization of club forms of work on the basis of the museum. The museum named after M. Ph. Shmyrev valid the club of enthusiasts of military history and the club of military-historical reconstruction. Club of military-historical reconstruction is directly involved in many activities taking place on the basis of the museum. As members of the club "Comrades in Arms" participated in the conduct of regional evening-requiem "The day before the start of the war" (2011); organization of military and historical reconstruction "partisan camp" (as part of the "Museum Night", 2012); interactive programs designed for corporate guests and participants of the festival "Torch" (2013); military and historical reconstruction "Liberation of Vitebsk" (with the participation of clubs of military and historical reconstruction of Belarus and Russia), in celebration of the 70th anniversary of the liberation of Belarus and Vitebsk from Nazi invaders (2014) [3].

**Conclusion**. So we can note that organization clubs on the museum base allows to create a permanent interested audience, to carry out targeted work, helping the museum in the implementation of projects and activities. From the point of view of society, the existence of such clubs is necessary for the formation of the youth culture of life and leisure, expanding horizons and the formation of social skills. Different forms of work of these two museums could be used in the other museum institutions of our republic.

#### References list:

- 1. Museum and educational programs for children and 5 9 years old and // Children's<br/>Museum, Polotsk [electronic resource]. Access:<br/>http://children.polotsk.museum.by/node/34948. Access Date: 01.10.2016.
- National Polotsk Historical and Cultural Museum-Reserve // Polotsk Museum [electronic resource]. - Access: http://polotsk.museum.by/ru/node/14996. - Access Date: 11.10.2016.
- Establishment of Culture "Vitebsk Regional Museum named after the Hero of the Soviet Union M. Ph. Shmyrev" // Establishment of Culture "Vitebsk Regional Museum named after Hero of the Soviet Union M. Ph. Shmyrev" [Electronic resource]. - 2015. - Access: http://shmyrev.museum.by/. - Date of access: 10.12.2015.

### THE FEAT OF VERA KHORUZHAYA

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The victory in the great Patriotic war was received with unimaginable price, exactly the death of millions of people and real heroes who sacrificed themselves for future generations. One of these heroes was Vera Zakharovna Khoruzhaya. The studying of the life and feats of prominent personalities of the worst period in the country's history is always actual, because it is very important to imprint on the pages of history the names of these great people and the feats made by them that the subsequent generations don't forget about the true courage and true will power of the previous generations.

The purpose of this article is the studying of the biography and the contribution to the victory in the Great Patriotic War of Hero of the Soviet Union – Vera Zakharovna Khoruzhaya.

**Material and methods.** The book of Andrei Gerashchenko "Unbending Vera: the life and fight of Vera Khoruzhaya", articles of domestic authors and also following methods: a descriptive-analytical method, method of analysis, method of synthesis were used in writing this work.

Results and discussion. Vera Zakharovna Khoruzhaya was born on 27 September 1903 in the town of Bobruisk in the family of the employee. During the civil war she took part in the fight against gangs of Bulak-Balakhovich. In 1924 she has left on underground work in Western Belarus, occupied by Poland. After arrest she spent several years in prison and then she was exchanged for the Polish priest and returned home. For outstanding merits in revolutionary movement in Western Belarus Vera Khoruzhaya was awarded the order of Red Banner. After she went to Balkhashto building of a five-years period– the construction of mining and metallurgical combine. In 1937 she was arrested on charges of espionage and spent two years in prison, and in 1939 she was acquitted and released by the decision of the court [3, p. 624].

From the beginning of the Great Patriotic war and until the death Vera Khoruzhaya battled in partisan group which was ordered by Vasily Zakharovich Korzh. The partisan group which was in the deep back of enemy troops needed to establish connection with command of the front. Khoruzhaya has excellently carried out this task. In 1942 she, at the head of group of underground workers, has been transferred through the front line to Vitebsk. It was the attempt to create the leading center in the city [3, p. 625].

On September 27, 1942 partisan coherent Claudia Boldacheva has led Dusya Suranova and Tonja Ermakovich to Vitebsk. On October 1, 1942 Ermakovich has led Vera Khoruzhaya to the city. But on the way to Vitebsk they were stopped by the point-policeman who has checked their passports. All documents of Vera Khoruzhaya was issued in the name of Anna Sergeyevna Kornilova. And this is no accident. The name and middle name reminded her names of her daughter and son - Anna and Serezha, remained in the soviet back, and surname - husband-partisan, who has heroically been killed in battles with fascist aggressors. In the first days of stay in Vitebsk Vera Zakharovna convinced that their documents, especially passports, are worthless, and the developed plan of activity didn't consider all complexity of a situation, and it needed to be changed [2, p. 291].

The group of Vera Khoruzhaya consisted of 18 people and carried out many diversions on the railroad, factories, engaged in gathering intelligence for the command of the soviet troops. The group always in due time informed partisans and the Central Committee of the Communist Party of Belarus about the situation in the city. About five weeks Vera Khoruzhaya has worked in an underground [2, p. 291].

Vera Zakharovna Khoruzhaya's letters from the Vitebsk underground are exist. She wrote 12 letters. All of them have been published. The last letter is dated the 6th of November, 1942. Sofya Pankova and Claudia Boldacheva have been sent to communication with Vera on13 of November. There has passed agreed term, but they didn't come back. For clarification of a cause of infringement of communication with Vera Khoruzhaya on November 26, 1942 A. Ivankova goes to the city. Here she learned the terrible news: Vera Khoruzhaya and her fellow soldiers have been arrested by hitlerites on 13 November, 1942. They have stayed in prison On Surazhskoye highway for five days, and on November 18, 1942 all of them have been transferred to the Vitebsk prison of SD. Multi-day interrogations and tortures have begun [3, p. 629].

Vera Khoruzhaya and her fighting friends have sustained twenty two days of inhuman tortures. But nobody has told fascists words, except A. Vasilyeva who has told a real name of Vera Khoruzhaya. All of them behaved bravely, stoically, with dignity, which infuriated hitlerites. On December 4, 1942 at sunrise from one camera twenty five people were taken directly. Back none of them returned to the camera. Details of loss of Vera Khoruzhaya didn't manage to be set. The rank of the Hero of the Soviet Union to Vera Zakharovna Khoruzhaya has been given posthumously on May 17, 1960 [1, p. 21].

The movie "Letters to Immortality" is devoted to life and feats of Vera Khoruzhaya and the second symphony by composer Kim Tesakov; her name is immortalized in street names in Minsk, Balkhash, Brest, Karaganda, Bobruisk, Grodno, Bykhovsk, Pinsk, Mogilev, Gomel, Vitebsk and other cities. Monuments, busts and memorial boards are also established. In Vitebsk cellars of the former prison of SD have remained. Today here is the exposition of the Vitebsk Regional History Museum "Memories of patriots of Vitebsk region of 1941–1945" [3, p. 669].

**Conclusion.** War has demanded from people of improbable courage and will power, true heroism and patriotism. For heroic feats in the Great Patriotic War over 11 thousand people were entitled the Hero of the Soviet Union, and part of them have received this rank posthumously as Vera Zakharovna Khoruzhaya. About 35% of Heroes of the Soviet Union at the time of assignment of a rank were in age up to 30 years, 28% – from 30 to 40 years, 9% - are more senior than 40 years [2, p. 10].

The Feat of Vera Zakharovna Khoruzhaya, which died in terrible torments, but who has remained the true patriot of the homeland to the last gasp, forever will remain in memory recent, as well as feats of thousands of other heroes who have offered themselves during cruel battles of the Great Patriotic War.

#### Reference list:

- 1. Gerashchenko, A. E. Unbending Vera: the life and fight of Vera Khoruzhaya / A. E. Gerashchenko. Minsk: Belarusian Encyclopedia, 2015. 47 p.
- 2. Dolgotovich, B. D. Your sons, Belarus! Heroes of the Soviet Union: biographical reference book / B. D. Dolgotovich. Minsk: Belarusian Encyclopedia, 2015. 371 p.
- Shkadov, I. N. Heroes of the Soviet Union: Short biographical dictionary / I. N. Shkadov. – Moscow: Military Publishing, 1988. – 863 p.

### CAUSES ETHNOCONFESSIONAL TENSIONS IN INNER MONGOLIA

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In recent years, the international community is concerned about the events in the north-western provinces of the People's Republic of China (PRC). Many analysts do not hide the fear that ethnic and religious conflicts, and the chain can reach is that the relatively «calm» Inner Mongolia Autonomous Region (IMAR). The purpose of work – by analyzing the relationship between the Mongols and the Chinese central authorities to identify the causes of ethnic and religious tensions in Inner Mongolia.

**Material and methods.** When writing this study were drawn open materials Chinese Consulate General in St. Petersburg. Of the methods of scientific research the author has involved the analysis, as well as historical and systematic, historical and genetic methods.

**Results and discussion.** Inner Mongolia Autonomous Region (IMAR) is one of the largest domestic Chinese entities. Its area is 12 % of the country and exceeds the territory of Germany and France combined. The economy of the district is agriculture, which employs 85 % of the population. The economic situation of IMAR at times inferior to the other provinces of

China. In recent years, it rapidly goes the development of the coal industry, which is associated with the construction of a large number of coal mines, which are destroying the environment, and coal mining is contrary to the traditional occupation of the Mongols – cattle. However, the government, despite the protests of the local population, announced Inner Mongolia «China's energy base» [1].

All Mongolian history took place in the struggle for statehood and against the Chinese conquest. This fight took a fierce character in the XVII century, when the land of Inner Mongolia as an exterior, and were part of the Qing Empire. Chinese Empire in 1636, the power of the earth separating Inner Mongolia from the rest of Mongolia, made it the object of harsh exploitation. Widely implemented plan of forced assimilation of the local population. By the end of the XIX century in Inner Mongolia, a widespread popular movement against the Manchu domination, rigidly suppressed by government troops. The national liberation movement in the region has received a new impetus at the beginning of the XX century with the creation of an independent Outer Mongolia Mongolian theocratic state. All 49 khoshuns Inner Mongolia expressed their desire to join. The government sent troops to Outer Mongolia to Inner Mongolia with the aim to expel the Chinese troops. Taking advantage of the Xinhai Revolution in China, in December 1911, Inner Mongolia declared its independence, which in 1915, according to the Kyakhta agreement between Russia, China and Outer Mongolia was reduced to autonomy within China. In 1924, the Soviet-Chinese agreement was signed in Beijing, Inner Mongolia which officially became part of the Republic of China.

During the Second World War, the Japanese invaders in the wake of ideas Panmongolism provoked separatist actions in Inner Mongolia. The ruling circles of Japan planned to create a unified Mongol «state» under its auspices. Almost two years after the defeat of Japan, May 1, 1947 it was established the first national government in China IMAR, but in the same year IMAR suffered actual occupation by Chinese forces. It was disbanded People's Party of Inner Mongolia, is aimed at reuniting with the Mongolian People's Republic.

According to the constitution in 1954 the right to national statehood was granted only Han people. As a result of the introduction of a new administrative division of the territory significantly reduced area, and because of the relocation of Han Chinese in IMAR Mongols were «national minority» in their own land. During the «cultural revolution» (1960). A new term «border region» in the political lexicon. In essence, the local autonomy as a form of administration has been eliminated [2].

In recent years, more and more often flashed messages of IMAR of clashes with the local population of Mongolian with Han people. There were numerous demonstrations in the capital Hook Hohhot. Among the Mongolian population is growing irritation of the massive influx of Han Chinese, the growth of mixed marriages, the fall, especially in urban areas, youth interest in the native language, traditional culture. Meanwhile, the Mongols celebrated the highest consciousness China among ethnic minorities [3].

**Conclusion.** Thus, the catalysts of the opposition mood IMAR following factors are: 1) the traditional mentality of Mongolians against Han Chinese: the memory of the 200-year rule in China, the Mongol Yuan dynasty, that is, the Mongols did not see themselves as «younger brothers» Han; 2) the history of the Mongolian population, associated with the struggle for an independent autonomous existence; 3) the difficult economic situation of IMAR, when GDP per capita in the region is one of the lowest among the other provinces of China; 4) the traditional religion of the Mongols - Buddhism, which to some extent opposed to Han Confucianism.

#### Reference list:

- Inner Mongolia Autonomous Region of China Encyclopedia // [Electronic resource]. Access: http://infokitai.com/avtonomnyj-rajon-vnutrennyaya-mongoliya.html. – Access Date: 04.07.2016.
- Bazargard, D. great-power chauvinism and the fate of the Inner Mongolia / D. Bazargard // Problems of the Far East. - 1973. - № 4. - S. 94-105.
- 3. In Inner Mongolia, the Mongols began conflicts with the Chinese // ARD: the business information portal [Electronic resource]. Access: http://asiarussia.ru/news/2612/. Access Date: 04.07.2016.

# KURDISH FACTOR IN REGIONAL GEOPOLITICS SYRIA AND IRAQ

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The tragic events of the «Arab spring» of 2011–2015 significantly destabilized the situation in the Middle East, leading to the activation of radical Islamic forces. The region is increasingly immersed in the atmosphere of civil war, terror and violence. In place of the overthrown moderate Muslim or secular regimes come to different groups of Islamists who hold largely radical Wahhabi-Salafi beliefs. In the context of the growing threat of the seizure of power objectively Kurds have become like a shield or barrage barrier to their future expansion. The purpose of this study – to examine the role and importance of the Kurdish factor in regional geopolitics, Syria and Iraq.

**Material and methods.** During the work on the theme of the study were drawn are publicly available documents related to modern geopolitics of Syria and Iraq. When writing works such scientific methods were used, as a description, analysis and synthesis, as well as historical and systematic method.

**Results and discussion.** The core of the Islamists become militarypolitical grouping «Islamic state» (IG), which occupied large areas of Iraq and Syria, declaring summer 2014 the establishment of the Islamic caliphate. The leaders of the IG forge ties with terrorist groups Syria, Pakistan, Afghanistan, Libya and other countries. IG tries to include in the new caliphate, Lebanon, Palestine, Jordan, the Gulf countries and Turkey, as well as progress in the South Caucasus and Central Asia [1].

Washington has tried to control the situation in the Middle East, but in the escalating civil war in the region, the situation became more and more to get out of his control. In Syria and Iraq, the civil war led to the emergence of the Islamic Caliphate, which threatens the ruling regimes in the countries of the region, spreading their ideology and influence on initiating jihad around the world. In the fight against «jihadists» was attended by Kurdish armed forces «Peshmerga». That Kurdish militia in Iraq and Syria with the help of tribesmen from Turkey and Iran, as well as supported by the BBC the coalition was able to stop the advance IG militants in the north of Iraq and Syria. The Kurds were not only able to stop the advance of the Islamists, but also released a series of previously occupied areas of the IG, throwing «jihadists» to tens of kilometers. The Kurds took control of Kirkuk, declared as early as 2002 to the future main city of the region of Iraqi Kurdistan; Now in fact it is the capital of Erbil.

In the conditions of a protracted civil war in Syria for 2011–2015 Government troops have left areas of compact residence of Syrian Kurds, which allowed the latter to establish self-government bodies and self-defense units. Today, Syrian Kurds adhere to neutrality in the national armed conflict, clashed only to protect their territories from the militants IG or «Jhabgu en-Nusra» [1].

The greatest successes in self-determination and the construction of a new society made by Iraqi Kurds. Iraqi Kurdistan is a unique model of a just solution to the Kurdish issue within a country. Thus it was possible to combine two basic universally recognized principle of international law: the right of nations to self-determination and territorial integrity of States. In the Kurdish region of Iraq has developed a fairly democratic system of power, establishing the basic institutions of civil society, independent media, political parties registered tens and hundreds of non-governmental organizations. Iraqi Kurdistan is neutral in relation to the events in Syria and the Sunni-Shia confrontation in Iraq. Iraqi Kurds have been forced to engage in clashes with Islamist guerrillas only after the last attack on the areas densely populated by Kurds and neighboring enclaves with them. In relations between Erbil and Baghdad are still unresolved problems and contradictions, forcing Iraqi Kurdish leaders from time to time to raise the question of a possible withdrawal from Iraq [2].

Further development of the Iraqi Kurdistan will largely depend on the overall situation in Iraq and the region as a whole. The escalation of the armed conflict in the country increases the political risks, creating a real threat to the existence of Iraq as a unified state. In any scenario (the collapse of the country in the enclaves, protracted civil war, and so on), Iraqi Kurdistan will retain control over its territory, strengthening the sovereignty and independence. The Kurdish region of Iraq is today becoming a force capable of resisting the attack groups of radical Islam and international terrorism [3]. Forty million of the Kurdish people, who turned compartmentalized borders of four states, retains its own language, the rich spiritual and cultural heritage, customs and traditions. The Kurds did not reject the creation of their own independent state. Factors constraining the union are also different levels of political and socio-economic development of the Kurdish areas in Iraq, Syria, Turkey and Iran, lingering tribalism, clan and sectarian sentiments of a number of leaders, geographical and linguistic fragmentation. Negatively affects pursued for many years the policy of assimilation and the forcible resettlement of Kurdish areas. To date, among the Kurdish towns and villages there are Arab, Turkmen, Armenian, Assyrian, Christian, and other settlements. population is increasingly mixed in the cities themselves. Select a purely Kurdish enclaves in the new state, without prejudice to the interests of other ethnic or religious groups – not an easy task.

**Conclusion.** The events of the «Arab Spring» and the ensuing civil war, created the preconditions to the collapse of Syria and Iraq – countries once artificially created on the ruins of the Ottoman Empire. Today, the Syrian and the Iraqi central government weakened, they have lost the trust of the population and have no control over most of the territories of their states. This gives the Iraqi Kurds base to continue to strengthen their government institutions, and Syria – to create autonomous regions with all the attributes of the local authorities. In the context of the ongoing expansion of radical Islamists gain IG foment large-scale armed conflict between the Sunni and Shiite communities, and trends in the transformation of the Syrian territories and Iraq in open opposition to the landfill of regional power centers Kurds objectively become the «third force» and, if necessary, may declare an independent state on northern Iraq. Iraqi Kurdistan is quite able to turn into a political, trade-economic, national and cultural center of the Kurdish people.

#### Reference list:

 Zhigalina, O.I. The current state of the National Movement of the Iranian Kurds / O.I. Zhigalina // Political processes in the Kurdish habitats West Asian countries (Iraq, Turkey, Syria, Iran). – Moscow: Institute of Oriental Studies of RAS, 2013. – P. 110– 132.

- Ivanov, S.M. National development of the Iraqi Kurds at the present stage / S.M. Ivanov // Political processes in the Kurdish habitats West Asian countries (Iraq, Turkey, Syria, Iran). – Moscow: Institute of Oriental Studies of RAS, 2013. – P. 9–50.
- Ivanov, S.M. Iraqi Kurdistan and the Kurdish national movement / S.M. Ivanov // Kurdish factor in regional geopolitics. Collection of round table materials. – Moscow: IMEMO RAS, 2015. – P. 6–19.

# CHINESE MARK ON THE TERRITORY OF VITEBSK REGION

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Vitebsk is known by its many legends and interesting facts. The first tram was launched in Vitebsk, here was founded the first art school, and was opened the first museum of private collections and much more. Many famous foreign visitors came and lived in our city, such as Napoleon, who was in Vitebsk in 1812, and also Pushkin, Mayakovsky and many other well-known persons. The history of this unique place includes not only the achievements of artists and writers, but the common people are also remembered at our lands. People that lived here, their lives created and left a rich legacy for future generations. Belarus has always been a multi-ethnic country. At different times people of different nationalities were in our lands. They brought with them their religion, their languages and culture. Tolerant Belarusian land became a motherland for foreigners, the fates decreed caught in Belarus. The fates of these people are closely intertwined with fates of Belarusians, their legacy had an influence to our culture and traditions. In this regard the theme of consideration seems relevant.

At the beginning of 20th century in a small Markovshchina village in Mazolovo's district appeared a collective farm which was called "Canton Commune". The collective farm was established by Chinese families which moved to Vitebsk. "Canton Commune" became one of the strongest collective farms not only in the Vitebsk region, but also throughout the country. Several prominent people were at the origins of this collective farm.

The purpose of this article is coverage of life and work of one of the organizers of the collective farm "Canton Commune" - Michael Sin-Su-ji.

**Material and methods.** In process of writing this work were used documents and personal files from the State Archives of Vitebsk region, an article from the newspaper "Vitebsk Proletarian" (1935) and the article from newspaper Vitbichi, memories of Sin-Su-ji's daughter, and also following methods: descriptive-analytical, comparative-benchmarking, methods of analysis and synthesis.

**Results and discussion.** Michael Sin-Su-ji turned outside of his homeland during times of tsarist Russia. In China he had the father Bin-Ji-

Tzu and three sisters, his mother died long ago. Big family farmed a small plot of land, lived in a tent and had not enough food. When policeman came for the ordinary requisitions and raised his hand onto elderly Bin-Tzu-Ji, a 19-year old son interceded for his father. The young man had to leave their land in order to avoid severe punishment. So in 1914, Sin-Su-Ji was in Borisov, where he began work at a timber factory. While working there he became interested in revolutionary ideas and started a friendship with the workers. By the 1919 year Sin-Su-ji voluntarily joined the Red Army. Together with the Belarusian, Russian, Ukrainian villagers and workers, he reached Warsaw, but was wounded and sent to Vitebsk [5].

During the war Sin-Su-ji showed features of a good analyst and benevolent man so his companions gave him name Michael. He named himself the same in the documents. By 1928, Michael became one of the organizers of the collective farm in the Vitebsk region. Together with other Chinese families, he asked for the land from the village council of Nikolaev for farming [3]. The collective farm was created together with Zhang Wanfu, which was a Chinese communist and Civil War hero, and later was declared the chairman of the collective farm. It was the first on the territory of Soviet Belarus Chinese collective farm, where worked both the Chinese and Belarusians. It was named the "Canton Commune" for immortalizing the event in Guangzhou in 1927 - the uprising of workers and peasants under the leadership of the Chinese Communists. The uprising lasted only 3 days, and was brutally suppressed, but the memory of this event immortalized both in China and beyond [2].

Because of its proximity to Vitebsk, at the collective farm mainly engaged horticultural farming - growing pears, apples, vegetables. First Chinese collective farm in Belarus gave great results and this led to the fact that by 1930 the collective farm "Canton Commune" and the neighboring farm "Victory" were combined. That way was founded the new collective farm, which had a different name. It was the collective farm named after Gikalo [4]. By the national composition of the collective farm was international. Deputy head of the farm was Michael Sin-Su-ji, who worked until he was drafted into the army. By 1944 Michael was missing. There was his family: his wife Anna Semyonovna Sin-Su-ji, two sons and a daughter. The elder son Peter served in the Workers and Peasants' Red Army and lived in Vitebsk to the end of his life. Middle son Leonid died at a young age. The youngest daughter Lubov left an orphan by the end of the war and got to the orphanage, at the moment lives in Vitebsk with her family.

**Conclusion.** Local villagers until this day remember the Chinese friends and colleagues. The fates of many of them for today are unknown. The memory about these people, who for various reasons have left their country and turned up in Belarus, people who have worked for the benefit of a new motherland, fought in the Red Army against Nazi invaders, the people who have left their mark in the Pridvinye's history should live. Considered theme just small part, the story of one man, there are lot of such people, and their stories must merge with the history of Vitebsk [1].

### Reference list:

- State Archives of Vitebsk Region. Fund 45 p. Op. 2. D.151; Vitebsk regional committee of the Communist Party of Belarus (Vitebsk regional committee of the PBC) 1935. 112 liters.
- State Archives of Vitebsk region. Foundation 1001 op. 1. D.373; Department of Public Utilities of the executive committee of the Vitebsk City Council 1935. – 242 liters.
- 3. State Archives of Vitebsk region. Fund 319 Op. 1. D.373; Vitebsk district agricultural union groups (Vitebsk okrkolhozsoyuz) 1937. 178 liters.
- Encyclopedia of History of Belarus in 6 volumes / Pashkov G.P. (chief ed.) [and others]. – M:. BelEn, 1997. – Volume 4: The Cadets-Leschenya / Pashkov G.P. [and others] – 1997. – 432 p.
- 5. Regional studies. Newspaper Vitbichi [electronic resource]. 2016. Access: http://www.vitbichi.by/?p=47231. Access Date: 10.30.2016.

# ASSESSMENT OF THE COMPETITIVE ATTRACTIVENESS OF THE TOURIST ORGANIZATION

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Any economic system necessarily implies that the relations of the economic agents are formed in the environment of competition. In today's economy the main line of economic, financial and marketing strategy of each travel agency becomes enhanced competitiveness.

The purpose of the article – to evaluate the competitive attractiveness of tourist organizations and identify the ways of its increasing.

**Material and methods.** In writing the article were used scientific work of researchers in the field of competitiveness of the tourism organizations. The investigation was conducted using of the descriptive-analytic, comparative methods, grouping of materials, questionnaire, synthesis and analysis, expert and point evaluation too.

**Results and discussion.** Competitive positions analysis is one of the leading positions in strategic management, since on its base the strategic decisions are accepted. The problem of assessing the competitiveness of economic entities is a difficult and complex so as competitiveness is composed of different factors. [1, p.57] At present, the services assessment methodology is not sufficiently developed. Among the main methodological approaches to the analysis are: horizontal, vertical, factor, comparative. Difficulties functioning of the organizations of the tourism industry is that the

assessment of the quality of tourist services by consumer is quite subjective and depends on various factors: general economic, cultural and sociopsychological, socio-demographic and personality behavior. In the economic literature there are the following methods for assessing competitiveness: assessment from the standpoint of comparative advantage, evaluation from the standpoint of equilibrium theory, assessment on the basis of product quality, matrix method, SWOT-analysis, the construction of a hypothetical polygon competitiveness and others.

We were carried out the competitiveness assessment of the four travel agencies in Vitebsk on the method of the hypothetical polygon and defined the most important indicators of a competitive advantage of tourist organizations by interviewing one hundred respondents and processing questionnaires. In a result of the study was revealed nine positions of competitive advantage. The results of competitiveness investigation of the tourist organizations are reflected in the Table 1.

Competitive advantages	Travel Agency «X»	Travel Agency «A»	Travel Agency «B»	Travel Agency «C»
1. Price	4,65	4,55	4,6	4,65
2. Quality of services	4,85	4,8	4,75	4,85
3. The range of services	4,85	4,85	4,8	4,75
4. Fame	4,65	4,6	4,65	4,7
5. Distribution	4,85	4,75	7,75	4,8
6. Innovative research	4,8	4,9	4,85	4,9
7. Quality control at the highest level	4,75	4,8	4,75	4,8
8. Personnel qualification of medium and low levels	4,65	4,75	4,8	4,9
9. Effective marketing	4,75	4,6	4,65	4,75

Table 1 – Evaluation competitiveness of travel agencies in Vitebsk

Source: own elaboration based on studying.

On each axis is deferred the value of investigated factor, therefore the larger area of the constructed polygon complies the higher competitiveness of the organization (figure 1). Moreover, the competitiveness of personnel was made by the expert evaluation. In general, all competitive indicators Travel Agency «X» in the result of investigation is estimated above average. The greatest competitive advantage is achieved through: the high quality of services, a wide range of services. Research has shown that it is necessary to pay attention to the pricing issues of company, recruitment and supervisors, marketing effectiveness.

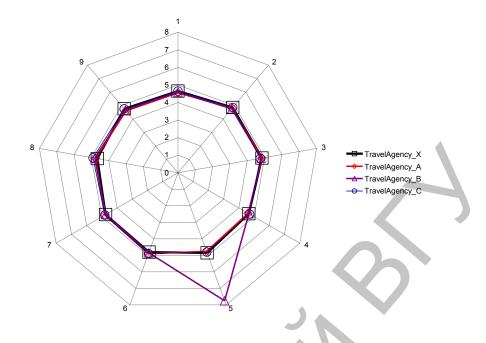


Figure 1. Profile of the competitiveness of Travel Agencies in Vitebsk

While conducting marketing research was offered the following questionnaire, which has helped to answer the following questions: how our compatriots prefer to relax? what travel agencies they know? The study showed a fairly high degree of awareness of citizens about the tourist companies that operate in the domestic market, which indicates at least about the interest in travel and leisure, which can be ordered through a certain organization. The next question in our questionnaire was the question of where the respondents prefer to spend your vacation? After processing the questionnaire was revealed that the majority -45% still prefer to vacation abroad (including Russia). Some respondents explained their choice by the fact that they would like to spend a vacation at sea, on the Russian and Bulgarian resorts and visit exotic countries marked as: "because all go there". Not a small "minority" is still prefer to spend their holidays "at home and in the country house" such respondents are 25%, their answers based on the fact that there is no desire to travel far because of the lack of money for expensive resorts, the presence of young children. Also a large enough quantity is 30% of the local population which seeks rest in Belarusian health resorts, besides rapidly gaining popularity in the agro-towns and estates. Travel agencies required more discounts to attract people to rest both abroad and in local health centers and agro-towns.

As a result of research competitiveness of travel agencies a map of strategic groups was made based upon indicators such as "the class of service" and "the dominant type of tourism." It is revealed that the most numerous are the following strategic groups: the organization of beach stages of an economy class; organization of beach stages tourist class; organization of tours of economy class; organization of tours of tourist class. At the lowest level in Vitebsk presented business and sports tourism. Travel Agency «X» is the only representative in the business tourism Vitebsk region. Only Travel Agency "B" specializes in sports tourism. The only representative of pilgrimage tourism is the Travel Agency "C". In this area they have no competitors. Shopping tours offer only two Travel Agencies – "A" and "C", but their tours are distinguished by class of service. Scope of beach tourism has the highest competition, so as it represented by almost all tour operators.

**Conclusion.** Summarizing the study, we can draw several conclusions. In Belarus, the services of travel companies are just starting to "gain momentum". Every day more and more people are seeking to relax outside the territory of their country, get acquainted with new countries. Therefore, based on the study, travel agencies need to develop a program of action of the company in the provision of services to the public: to predict what the service will have the maximum demand so that the best meet the needs of consumer, to determine the qualitative characteristics that have a competitive advantage.

#### Reference list:

1. Волонцевич, Е.Ф. Конкурентоспособность предприятия туристской индустрии / Е.Ф., Волонцевич. – Учебно-методическое пособие, РИПО. – Минск, 2014. – 137 с.

# DETERMINATION OF THE SOCIAL ROLE OF LANGUAGE, LANGUAGES, LITERATURE, BELARUSIAN FOLKLORE FUNCTIONING IN THE DEVELOPMENT CONTEXT OF EUROPEAN AND WORLD CULTURES

# ANGLICISMS IN RUSSIAN LANGUAGE

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Borrowings of foreign words are the most wide-spread and effective ways of developing any language. Borrowing is a linguistic process when words of one language pass into another and are fixed there for a long time. As a rule, languages change in response to the needs of any society. Borrowings are the result of ties, relations between people and countries. The main reason of borrowings is the necessity to find an appropriate word to describe any phenomenon in a particular language. Depending on the language from which words were borrowed all the words can be divided into several groups including Anglicisms (from the English language), Arabisms (from Arabic), Germanisms (from German), Italianisms (from the Italian language), etc. The influx of English borrowings in the Russian language can be referred to the 90s. This is due to the changes in politics and economics (summit, briefing, speaker), food and trade (hot dog, SPA – salon, second–hand), culture and social service (thriller, hit – parade, fitness). Anglicisms have already become the most dominate in the Russian language [1].

The aim of the work is to determine the reasons of appearing anglicisms in Russian language.

**Material and methods.** The material of the research: English borrowings in modern Russian language. While working at the article we used the following methods: descriptive method with the elements of observation of linguistic phenomena; method of systematization, classification and comparison; analysis of various sources of information: books, publications in magazines.

**Results and discussion.** Various theoretical materials related to borrowings, and a dictionary of foreign words, articles of modern linguists were analyzed in our work.

Stages in the evolution of Anglicisms

1) «penetration" – the initial stage, the ratio of words only with the English reality: can be short (in the words with absolute synonyms, for example: the reconstruction – reconstruction); can be long (in the words of their content nesootnosimyh with Russian reality, for example: a policeman).

2) «borrowing" – a period when expanding the scope of use of the word in relation to the Russian reality, for example: bedlam.

3) «establishment" – a period of wide spread of the word when borrowing gradually acquires features inherent in the words of Russian language, for example: an athlete, club.

The classification of anglicism

Most linguists suggest the following classification of borrowings including such terms as:

1. Direct borrowing: "уик-енд" - the weekend; "блек" - Negro.

2. *Hybrids:* "аскать" (toask - спрашивать).

3. *Tracing:* "menu", "the drive", "the virus", "the club", and "the sarcophagus".

4. Semi paper: "drive" in the meaning of "energy, power."

5. Exoticism: For example, "чипсы" (chips), "хот-дог" (hot-dog).

6. Foreign-language blotches: For example, "окей" (OK); "вау" (Wow!).

7. Composites: "хит парад".

8. Jargonisms: "крезанутый" (от crazy - сумасшедший).

All Anglicism can be divided into <u>reasonable and unreasonable</u>. In simple terms, unjustified (or unreasonable) borrowing of English words is such borrowing, which replaced the previously used Russian word. For example, we use Anglicism "killer", instead of the native Russian word "убийца", a "reception", instead of "приемная".

The greatest number of words presented different thematic groups:

1110 8100	The greatest number of words presented different mematic groups.		
Politics / Economics / an appointment	summit, briefing, speaker, rating, holding, voucher, impeachment, image maker, speechwriter, investment, sponsor, barrel, media, marketing, leasing, tender, retail, offshore, price list, promoter, distributor, dealer, businesswoman, mentality		
Food / clothing / trade	hot dog, cheeseburger, hamburger, fishburger, chocopie, popcorn, fresh juice, yogurt, pudding, Coke-Cola, Nuts, Twix, Sprite, fast food, lunch, chocolate, shorts, boots, bandana, cotton, top, multi-brand, unisex, Catering, Shopping, sale, Kodak Express, gel, SPA - salon, supermarket, VIP-hall, second-hand, discount		
Sport	shaping, fitness, diving, surfing, bodybuilding, snowboarding, football, paintball, basketball, freestyle, wrestling, Power lifting, bowling, training, skating-rink, striker, goalkeeper, biker, sniper, scooter		
Arts / Radio / TV	thriller, western, video clips, music, director, newsmaker, blockbuster, bestseller, underground, pop -Art, rock, rock and roll, casting, shake, break dancing, Brain ring, show, hit – parade, superstar,		
House / Life / Chancellery	conditioner, cooler, mixer, toaster, blender, siding, roll - blinds, shutters, antifreeze, bullet, Magic, Vanish, Fairy, Comet, Head &Shoulders, Dove, Tide, cleaning company, scrub, spray, color, diaper, stapler, scotch		
Information and communication technologies	computer, monitor, display, calculator, notebook, printer, scanner, CD, DVD, processor device, hacker, click, web, website, blog, smiley, SMS		

Justified (or reasonable) borrowings are the words that replace the lack of corresponding concepts in the Russian language or when we need for a name of a new object or an item. For example: touchpad, laptop, printer, journalist, business interface and many others. Scary to imagine, how we could call the phone, if we didn't borrow it from the British. A plotter, a scanner, a chocolate? That's why we call them justified borrowings.

There can be several reasons which could help to explain such phenomena. As a rule, English words are short and simple. Furthermore, teenagers are often influenced by their favorite films and sitcoms, popular music and TV programs. What is more, young people find it easier to express their thoughts and feelings by means of any foreign languages.

**Conclusion.** In the conclusion we may say that it's impossible to stop the process of borrowings and to prevent the appearance of new words in any native language. Without them people can't imagine the modern person or language. However, the significance of these words should be clear both to the speaker and the listener, and the use of such words should be appropriate and justified. The ability to use these words properly shows the respect to the speaker's language and to himself.

After analyzing the theoretical materials related to the topic, it can be concluded that at present the English words have become an integral part of everyday speech.

The main reasons for such integration are expanding interstate and international relations, increased information flows, expanding the horizons of knowledge of modern people.

According to the appearance of a large number of loan words, there is a need to classify them:

1. Words that typically do not have synonyms in the Russian language.

2. Words that have synonyms in Russian.

3. Words used in English newspapers in, English letters.

There are many ways of forming of education Anglicisms. Among them are: direct borrowing, hybrids, tracing polukalka, ekzotizmy, foreign-language inclusions, composites, jargon.

### Reference list:

- 1. Borrowings in the Russian language [Electronic resource]. Mode of access: http://azenglish.ru/. Date of access: 20.10.2016.
- 2. Grammar and composition [Electronic resource]. Mode of access: http://grammar.about.com /. Date of access: 21.10.2016.

# CORPUS LINGUISTICS. THE USE OF ENGLISH TEXT CORPORA IN STUDYING SYNONYMY

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The topicality of our research lies in the fact that corpus linguistics is one of the main sources of studying languages. The text corpora are of great interest for various types of research. Synonymy as a linguistic phenomenon is studied mostly by means of dictionaries, only a few researchers see the enormous potential offered by corpus linguistics. Modern English corpora can give more information about the lexical structure of the language than dictionaries.

The aim of the research is to identify how an electronic corpus can be used in linguistic research.

**Material and methods.** Such methods of corpus linguistics as automated information extraction and text search in large-scale corpora can be very useful in the process of teaching and studying foreign languages while working with texts and studying various linguistic phenomena [3].

**Results and discussion.** Corpus linguistics is a branch of applied linguistics dealing with the development of general principles of construction and use of linguistic corpora. It is a young and rapidly developing field of science, which is closely associated with computer linguistics and applies quantitative methods widely [6, c. 9].

Corpus linguistics involves two aspects: firstly, the creation and marking up corpora and developing searching tools for them and, secondly, purely linguistic and experimental research based on corpora [10, p. 182].

A text corpus is a large and structured set of texts (now usually electronically stored and processed). They are used to do statistical analysis and hypothesis testing, checking occurrences or validating linguistic rules on a specific universe [2]. Corpora constitute a valuable language resource, that are much more functional, efficient than dictionaries.

A number of challenges, such as the choice of synonyms or alternatives allocation, can be solved more efficiently by using a text corpus [8, p. 75]. The corpus analysis is an effective method while studying synonyms from the point of view of their quantitative and qualitative component [7, p. 59]. The latter includes, for example, getting a list of synonyms for a necessary word.

A text corpus provides information about the communicative status of a concept, as the presence of synonyms for a word is the indicator of this concept significance in the communication of native speakers [7, p. 65].

The second indicator of the communicative relevance of the concept is the frequency of synonyms' usage. A text corpus shows the number of occurrences of a tested word and the years when it was the most and the least common.

Moreover, a text corpus studies provide an opportunity to learn typical combinability of synonyms and the most frequently used synonyms. There is also an opportunity to compare the number of maximum frequent combinations with every tested word [9, p. 10].

There are many text corpora of the English language. However, many of them are paid and access to them is difficult. There are corpora available on free basis and they have a user-friendly search interface [5]. The most common English corpus is the Corpus of Contemporary American English (COCA). It is the largest free corpus. It contains spoken language, fiction, magazine and newspaper articles, scientific texts [4].

Used research methods are analysis of various sources of information (books, Internet sites, dictionaries), comparative analysis and systematization of the material.

**Conclusion.** In conclusion we would like to say that electronic text corpora provide a rich linguistic material for educational and research purposes. Now there are many classic electronic text corpora in foreign languages in the Internet. The most famous of them are British and American national corpora of English, the COCA. The analysis of corpora, methods and practices of corpus linguistics are the prospective direction in the area of foreign language teaching. International practice in this field proves the effectiveness of this kind of research.

### Reference list:

- Corpus linguistics, Institute of linguistic research of the Russian Academy of Sciences, 2008 Corpus linguistic and lexicological sciences. [Electronic resource]. – Saint-Petersburg, 2008. – Access mode: http://corpora.iling.spb.ru/theory.htm. – Access date: 20.10.2016.
- Applied linguistics: Corpus linguistics and corpus approach in foreign language teaching [Electronic resource]. – Ulyanovsk. – Access mode: http://ling.ulstu.ru/linguistics/resourses/literature/articles/corpus\_linguistics\_language \_teaching/ – Access date: 16.10.2016.
- 3. Fund of knowledge Lomonosov: Corpus linguistics [Electronic resource]. Moscow. Access mode: http://www.lomonosov-fund.ru/enc/ru/encyclopedia:01210:article. Access date: 16.10.2016.
- Corpus of Contemporary American English [Electronic resource] / Mark Davies, 1990 – 2012. – Mode of access: http://corpus.byu.edu/coca. – Date of access: 20.10.2016.
- 5. The 21st Century Text: Corpus Use for Beginners [Electronic resource]. Jerusalem, 2013. Mode of access: http://21centurytext.wordpress.com/home-2/special-section-window-to-corpus/corpus-use-for-beginners/ Date of access: 21.10.2016.
- 6. Zakharov V. P. Corpus linguistics: a textbook. Saint Petersburg. 2005. 48 p.
- Pupynina E.V. The Use of corpus analysis in the study of synonyms: proceedings of the international scientific conference "Corpus linguistics – 2011", Saint Petersburg, 27-29 June 2011 / Saint Petersburg State University, Institute of linguistic research of the Russian Academy of Sciences, Russian State university named after A.I. Herzen. – 332 p.

- 8. Stepanov Y.S. Methods and principles of modern linguistics. Moscow: Science, 1975. 313 p.
- Arppe, A. Every method counts: combining corpus-based and experimental evidence in the study of synonymy / A. Arrpe // Corpus Linguistics and Linguistic Theory, 2007. – № 3. – P. 5–17.
- 10. Taylor, C. What is corpus linguistics? What the data says. / C. Taylor // ICAME Journal, 2008. № 32. P. 179–200.

# SOCIOLINGUISTIC STATUS OF ENGLISH IN THE FRANCOPHONE PROVINCE OF QUEBEC

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Considerable research on the relationship between language and society has been done in recent years. The area that is perfect for this kind of research is the francophone province of Quebec, where questions of language are intrinsically linked to nearly each social, political and cultural issue the province faces. This paper is mainly focused on investigating the status of the English language in the context of one of the sociolinguistic phenomena called "bilingualism" in the province that is considered to be the only North American region that has French as its sole official language.

The relevance of this research is based on need to study the tendency of the development of English in the context of bilingualism, and find out whether it is still taking the leading position in relation to another official language in Quebec.

Thus, our research aims to give a comprehensive account of the impact of the bilingual situation on the status of the English language as well as on the residents and immigrants of this province.

**Material and methods.** Our research was based on numerous search queries on the Internet related to French and English and the way they coexist in Quebec.

To achieve the main aim of our research we turned to the following scientific methods:

•data collection (to analyze the area of our concern we turned to different methods of data collection, including data gathered from social media, sociolinguistic interviews, censuses, statistics, figures);

• statistical analyses;

•descriptive method.

**Results and discussion.** The overall political course alongside with language policy for more than 50 years have resulted not only in the increasing number of population speaking two languages, but also in the aspiration of the most part of it to learn the second one. Thus, the rate of

bilingualism rose continuously in Quebec. According to the statistics, about 87% of Canadian's bilingual population lives in Quebec [2, p. 129]. And in our research we made attempts to find out the reasons why. It is primarily because of Francophones, most of whom live in Quebec, have a higher rate of bilingualism than Anglophones, but also because Quebec Anglophones have a higher rate of bilingualism, as official minorities (Francophones outside Quebec and Anglophones in Quebec) are more bilingual than the majority.

While only about 7.5% of English-speaking Canadians are also fluent in French, some 40% of Quйbec's French-speaking population is also fluent in English, that is to say, in Montreal in 2006, some 425,000 persons reported their mother tongue as English while approximately 592,000 reported it as their language spoken at home [1, p.30]. Therefore, it can be seen that in Quйbec, where the official language is French, many citizens, especially those in the metropolitan region of Montrŭal, become bilingual. To get a more comprehensive understanding of the citizens' attitudes towards English we analyzed the data of numerous censuses, questionnaires, and statistics. The findings suggest that according to the 2007 census, 67% of Quebecers claims English as its mother-tongue while only 21% claims French as their mother tongue. Within Quebec Francophone population still has a majority, 82%. The Anglophone community is at about 10,6% in the province with remaining 7.4% being immigrants.

Taking into account the data we made attempts to find out how the government upholds bilingualism policies in this region, and started by investigating numerous realities of public life of the citizens. Analyzing the names of road signs indicates that in most parts of Quebec they are not duplicated and shown primarily in French. As for analyzing numerous websites of popular restaurants and coffee shops as well as reviews from customers, it was found out that food terms in most menus in Quebec are also given mainly in French. Moreover, according to the study of negative reviews of English-speaking visitors in Quebec towards the way they were served in some coffee shops and restaurants, it was shown that most wait stuff didn't reply in English or simply refused to do so. The studies of reviews of most anglo-Quebecers, concerning booking accommodation, use of transport services etc, show that responders reported difficulty in obtaining service in English, which indicates that most of services are provided solely in the French language.

Analyzing the Quebec Public Administration, it was found out that for the year 2002, Anglophones represented 0,7% of total employees in the Quebec public service, and according to the responses to the issue of equitable inclusion in the Quebec public administration the results showed that the vast majority of respondents (75% to 78%) felt that Anglophones did not have access to jobs within the government of Quebec [1, p. 25].

Taken together, these studies of public life show that the drawing power of English relative to French is declining in the regions of Quebec. However, if to analyze the data obtained by means of the closed survey questions in order to determine attitudes of the citizens on a status dimension it was found out that the respondents' attitudes towards English were in fact much more positive than their attitudes towards French. All three groups (Anglophones, Francophones and Allophones) considered English to be significantly better suited to modern society than French. Moreover, the Francophones and the Allophones deemed knowledge of English significantly more likely to increase their opportunities to find employment than knowledge of French, and the allophones also judged English to be significantly more important in order to get far in life [1, p.33]. However, it was noticed that when a minority of responders claimed that knowing French was significant to get far in life and increase ones opportunities to find employment, they specified it by saying: "it's relative: if it's in Quebec, yes" [1, p.46]. Nonetheless, 100% of the younger generation, regardless of location, report speaking English daily.

It can be said that in our case the bilingual situation in Quebec is developing in circumstances where one language dominates and another one is suppressed, which can be explained by the fact that people generally only become fluent in languages it makes sense for them to learn in the circumstances they live. Thus, the reasons for spreading English in francophone province are evident: a province of eight million French speakers surrounded on all sides by a massive continent of over 300 million Anglos [1, p. 19]. That is why it is a mast for Quebecers to learn English to simply have effective communication and commerce not only with their province's sizeable English speaking minority but with a wider world in which English has emerged the lingua franca of business, diplomacy and technology, which shows that Quebecers are likely to consider as a material incentive to acquire command of the language. And it is also the case that residents of this region can have difficulties finding a job if they are not officially bilingual.

**Conclusion.** Summing up the results of our research, we may conclude that current linguistic situation in Quebec represents a very controversial bilingual situation. Despite the number of adopted language laws and policies that were supposed to make the English and French languages equal in the francophone province, the present-day Quebec shows that the two languages are clearly not equal, as the results demonstrate the overwhelming convergence to English.

From the data obtained, we can conclude that:

1) the analyses of the social communication function of the English and French languages demonstrate that English is a standard language that has a social function in Quebec. As for the most part of Canada, French can be characterized as a standard language as well. However, in Quebec, it replaces English, as it can be seen from our investigation of public life of the citizens of this province;

2) the research of the language choice among Anglophone and Francophone communities show that they both cannot deny that the knowledge of the English language would help them to have better communication and commerce. Having studied the statistics, it was found out that nearly all the participants recognized the value of learning English by virtue of its universality and economic value. And despite the desire of Francophones to safeguard their language and thereby their respective social identity, our results show that they also cannot but use the English language to their advantage;

3) the studies of data obtained from questionnaires concerning the attitudes of Francophones, Anglophones and Allophones on status and solidarity dimensions show that these communities evaluated English significantly more favourably than French, which can be explained by the role of English as the global lingua franca the language of socio economic advancement.

Thus, the findings suggest that the English language still exerts a strong power attraction upon most people living in North America, including the French majority within Quebec. And the Anglophone community had always been in the majority and tended to dominate over the francophone community.

## Reference list:

- 1. Bourhis, R. The Vitality of the English-Speaking Communities of Quebec / R. Bourhis. Montreal: CEETUM, 2008. 213 p.
- 2. Kircher, R. Language Attitudes in Quebec / R. Kircher. London: University of London, 2009. 263 p.
- 3. Baker, C. Attitudes and Language / C. Baker. Michigan: Multilingual Matters, 1992 173 p.

# THE MANIFESTATION OF THE ENGLISH MENTALITY IN THE LANGUAGE PAREMIOLOGICAL FUND

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Linguists have been studying "language and culture" problems for a long time. Linguistic analysis is one of the easiest ways to enter into the sphere of mentality and culture. Collocations are utterly important in this respect. They help us to make out the original image of an object or phenomenon, because the combination of words is some kind of a coherent story. Such outstanding linguists as R. Rideout, K. Whiting, A. Taylor, D. Palmer emphasized the importance of proverbs and sayings investigation.

The aim of the research is to identify the influence of the British mentality on the language paremiological fund. It's particularly necessary to point out the British main national features, to trace their influence on theme features of the proverbs, to identify the link between the paremiological fund of the language and the national characteristics.

**Material and methods.** The material of the study is 700 British proverbs and sayings that we have selected from the sources: "Explanatory Dictionary of English proverbs" by R. Rideout, C. Whitting and "The Oxford Dictionary of Proverbs" by J. Speake and J. Simpson. In the article the comparative method, the descriptive method, the continuous sampling method and the method of the analysis and synthesis of information have been carried out.

**Results and discussion.** Language as a whole (especially its proverbs and sayings) always expresses people's experience and their cultural values, customs and attitudes, in other words - their mentality. Moreover, each national language also forms the nation's character. According to B.A. Larin, a phraseological unit in the strict sense of the term always indirectly reflects the people's view, the social system and the ideology of the age, like the light is reflected in a drop of dew [6, p. 156]. The main purpose of proverbs is to give people's appraisal of objective phenomena in reality. Proverbs illustrate the lifestyle, the geographical location, the history and the traditions of a community united by the same culture.

The English character is quite contradictory, but at the same time it's very integral and definite, it has retained the same for many centuries. A lot of English character traits appeared in ancient times under the influence of natural factors (e. g. insularity), as well as historical events (the introduction of the principles of "gentlemanly conduct" during Queen Victoria's reign), cultural and linguistic factors, forming the mental image of the people [1].

As a result of our research we have examined the major features of English nation and their impact on the language paremiological fund. As for the peculiarities of British character, our analysis has shown the following temperamental attributes:

1) Self-control. Politeness. The British are considered to be reserved, they are unwilling to show emotions and feelings. British people regard self-control as the principal advantage of a person's character. The expression "Be master of yourself" can be called the motto of this nation. The following proverbs can prove the fact: *Tattler is worse than a thief. First think then speak. A close mouth catches no flies. A man of words and not of deeds is like a garden full of weeds.* 

2) Individuality. The British stand out for their "island mentality". Consequently, an Englishman is deeply individual, as if on an island. Thus, the

sense of personal independence is quite important. Tolerance is regarded as a policy of non-interference into other people's privacy [2]. The British are sometimes characterized by snobbery. It is colonial influences. It's also necessary to mention, that the British may be a little hostile towards foreigners. For example: *Every cock sings in his own manner. Each bird loves to hear himself sing. A pike lives in the lake to keep all fish awake.* However, such concepts as love, friendship, mutual assistance also carry weight with this nation: *No man is an island. A friend in need is a friend indeed.* 

**3)** Conservatism. Traditions are extremely important there. That's why the British treat them tenderly and respectfully. The examples are the following: *Custom rules the law. Custom is a second nature. Live with wolves, and you learn to howl. When in Rome, do as the Romans.* 

4) Patriotism. Love for home and family. The British perceive their homes like a fortress, where they are able to take refuge and hide themselves not only from unwelcomed visitors, but also from annoying worries, daily routine. Britons love their Motherland and are proud of it. *East or West – home is best. Blood is thicker than water. There's no place like home.* 

**5**) **Orderliness.** The British are law-abiding people. Respect for the law, has become a natural part of their life and character [2]. This temperamental attribute is revealed in the following proverbs: *Confession is the first step to repentance. A fault confessed is half redressed. Confess is good for the soul.* 

6) Diligence. No one can allocate their time and money as Englishmen. Usually they work hard, but always find time to unwind and to derive pleasure from their spare time [2]. For example: *No pain, no gain. Always at it wins the day. A rolling stone gathers no moss* 

7) Entertainment. The British know how to have fun. They work a lot, but coming home they prefer to look aside from day-to-day routine. British favorite kinds of entertainment are betting, clubs, gambling, gardening, hiking, sport, cricket and fishing: *All work and no play makes Jack a dull boy* 

**8) Humor. Optimism.** The English are known for their optimism and a peculiar sense of humor. The British enjoy laughing at themselves, their beloved royal dynasty or even religion. Apart from the British, few people can estimate the local humor at its true worth: *Every cloud has a silver lining. Everything comes to him who waits. A foul morn may turn to a fair day.* 

**9) Pets.** The study has also found, that the vivid side of British Pet Passion is reflected in English proverbs and sayings and the animal code predominates in them: A cat has nine lives. All cats love fish but fear to wet their paws. Barking dogs seldom bite.

**10)** Materialist conception. The British spend a lot of time on earning money. Still it's essential to state, that the British are not stingy [2, 134-135]. These characteristics seem to be reflected in such proverbs as: A light purse makes a heavy heart. A thief passes for a gentleman when stealing has made

# him rich. A bird in the hand is worth two in the bush. A penny saved is a penny gained.

**Conclusion.** It has been revealed, that the semantic field of proverbs and sayings frequently coincides with the main national features of Britons: independence, arrogance, law-abiding, politeness, reticence, tolerance, diligence, love of freedom, money, specific humor, etc. It can be explained by the number of reasons: historical events, geographical, cultural and linguistic factors. Of course, the analysis of above mentioned proverbs and sayings is not thorough, as well as the set of proverbs itself. However, our analysis has shown that English proverbs can give a clue to the national mentality and certainly require further investigation.

## Reference list:

- 1. Urbanowich, V.V. The manifestation of the English mentality in the language paremiological fund [Electronic resource] / V.V. Urbanowich. –Mode of access: <u>http://conf.grsu.by/alternant/2013/04/09/872/</u>. Date of access: 01.11.2016.
- 2. Sukharev, V.A. Europeans and Americans examined by a psychologist / V.A. Sukharev– Minsk: Belarus, 2000. 368 p.
- 3. Rideout, R. Explanatory Dictionary of English proverbs / R. Rideout, C.Whitting, A.P. Nehal. -- SPb: Lan, 1997. 256 p.
- Pedagogy. Modern Encyclopedia / E.S. Rapatsevich, A.P. Astahova. Minsk: Modern School, 2010. – 720 p.
- Speake, J. The Oxford Dictionary of Proverbs / J. Speake, J.Simpson. –Oxford: Oxford University Press Inc., 2008. – 625 p.

# THE CONCEPTS OF "MOTHERLAND", "BATSKAWSHCHYNA" AND "BAT'KIVSHINA" IN RUSSIAN, UKRAINIAN AND BELARUSIAN LINGVOCULTURES

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One of the important aspects of modern linguistic science is a comparative study of the concepts, which works in various linguistic cultures. It predetermined the goal of our work - to conduct a comparative analysis of the functioning of synonymous concepts "Motherland", "BATSKAWSHCHYNA" and "BAT'KIVSHINA" in the East Slavic (Russian, Belarusian and Ukrainian) lingvokultures.

The aim of our research is to find out important peculiarities and differences between related lingvoculteres and concepts.

**Material and methods.** The material of the research is based on texts in Russian Russian newspaper "Komsomolets Briansk" (Bryansk region), publications in Belarusian Vitebsk bilingual newspaper "Vitebsk news" and news stories in Ukrainian Poltava regional publication "Evening Poltava" for 2013-2014. The methodological basis of the research methods have become a continuous sampling method of the material and discourse analysis.

**Results and discussion.** Concept – is a semantic formation [1, p. 36], the description of which linguists are engaged in recently. The concept of "Motherland" is one of the key for the Russian linguistic culture, quite well described. For the Russian Motherland - 1) country, country, 2) native land, 3) place of birth, country of [3, p. 549], and 4) the mother [2, p. 414]. This confirms the practical material: "... if the Motherland would call"; "... The voice of the native land, the voice of the Motherland calling"; "... Bryansk region -is the birthplace and it comes first ..."; "Motherland – is our homeland, which we will defend", etc.

A detailed discourse analysis of the concept of the Belarusian "BATSKAWSHCHYNA" is operating in the materials of the newspaper mass media, it shows the replacement for the Belarusians the concept of "Motherland" and "Fatherland", and a number of other concepts.

First of all, "BATSKAWSHCHYNA" is a 1) land (not a country, as in Russian), where he was born and raised («Batskawshchyna – dear land!»; «on Batskawshchyne where we grew up ...»; «In my Batskawshchyna the whole childhood ...»); 2) native place («My native place is my Batskawshchyna!»; «My father's place means my Batskawshchyna»); 3) something that is dear to the heart, valuable («Inly with my Batskawshchyna...»; « Most light that we carry through life is a love for the Batskawshchyna. »; «With a sore heart for the Batskawshchyna»); 4) something that should be protected, cherished («...to hide and protect the most important thing – Batskawshchyna»; «An order to save the Batskawshchyna we will do ...»; « Batskawshchyna needs protection not only in the "fashion season" on the retro, but...»).

Ukrainian concept of "Bat'kivshina" has significant <u>distinctions between</u> the concept of "Batskawshchyna". According to its semantic meaning it is close to the Russian variant and means: 1) country («Our Bat'kivshina – Ukraine is a great country...»); 2) place of birth, native shore (*«Son, you may choose whatever you want around the world but not a* Bat'kivshina»); 3) fatherland (*«Ukraine is the holy* Bat'kivshina, *our motherland »*); 4) The mother (*«Hundreds of thousands of Ukrainian children glorified heroic exploits their beautiful* Bat'kivshinu.»). A distinctive feature of the described concept is its usage for designation 5) of the native property (*Now his* Bat'kivshina is mine, it's the largest part of my estate .).

**Conclusion.** Thus, the journalistic discourse contributes to the identification of a wide range of meanings of concepts "Motherland", "Batskawshchyna" and "Bat'kivshina" in the related Eastern Slavic linguistic cultures. Journalistic material also provides great opportunities for a comparative analysis of similar lexical meaning in mental units (concepts). The analysis of concepts we have chosen showed that in the concept of

"Motherland" the key features are – the physical and geographical space, country. While in the concept of "Batskaushchyna" are the most important cultural and national connotations, emotive-evaluative halo emphasizing common cultural heritage of the people. For the concept of "Bat'kivshina" are important administrative and territorial characteristics, personal and national characteristics. Besides the Ukrainian variant of the concept is using to denote wealth and property.

#### Reference list:

- 1. Maslova, V.A. Kognitivnaya lingvistika : ucheb. posobie / V.A. Maslova. 2-e izd. Minsk : Tetra Sistems, 2005. 256 s.
- Teliya, V.N. Kontseptoobrazuyuschaya fluktuatsiya konstantyi kulturyi «rodnaya zemlya» v naimenovanii rodina // Yazyik i kultura. Faktyi i tsennosti : k 70-letiyu Yu.S. Stepanova [sbornik statey] / Ros. akad. nauk, otd-nie lit. i yaz. ; otv. red. E.S. Kubryakova, T.E. Yanko. Moskva : Yazyiki slavyanskoy kulturyi, 2001. s 409–418.
- Ozhegov, S.I. Tolkovyiy slovar russkogo yazyika : ok. 100 000 slov, terminov i frazeologicheskih vyirazheniy / S.I. Ozhegov ; pod red. L.I. Skvortsova. – 27-e izd., ispr. – M. : OOO «Izdatelstvo «Mir i obrazovanie», 2012. – 736 s

## STRUCTURE AND ROLE OF SOCIOCULTURAL COMPETENCE AT TEACHING FOREIGN LANGUAGES

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The term "sociocultural competence" is one of the most popular in the methodical literature.

If sociocultural competence is not formed, misunderstanding between conversationists takes place. Forming of sociocultural competence is one of the most important aims of teaching foreign languages.

Aim of the research: to prove necessity of forming sociocultural competence during the process of teaching foreign languages.

**Material and methods.** The research material consists of the works on the problem of formation of sociocultural competence among students (V.V. Safonova, G.V. Elizarova, I.E. Riske, D.S. Melnikova, O.V. Eremeeva etc.). Was used the following methods: analysis and systematization of theoretical literature; observation.

**Results and discussion.** Different methodologists define the term "sociocultural competence" in different ways. According to the dictionary of methodical terms, "sociocultural competence is a knowledge about a country of studied language, national and cultural characteristics of social and verbal behavior of native speakers and ability of using of this knowledge during communication by following the rules of behavior, traditions, social terms, stereotypes of behavior of native speakers" [1]. V. V. Safonova gives the following definition: "Sociocultural competence is students' knowledge of

national and cultural characteristics of a country of studied language, abilities of behavior according to this knowledge and also readiness and ability to live and interact in modern polycultural world" [9]. G. V. Elizarova affirms that sociocultural competence is knowledge about values, beliefs, examples of behavior, traditions, language, cultural achievements, that characterize some society" [4]. I. E. Riske defines sociocultural competence as an aspect of the communicative ability, including such characteristics of society and its culture, that are detected in communicative behavior of members of this society [8]. D. S. Melnikova understands sociocultural competence as "ability of adequate communication according to the rules of communication typical for definite sociocultural context of a foreign society" [7]. So, we can make the following conclusion: there are various definitions of the term "sociocultural competence".

The structure of sociocultural competence has some specific characteristics. Sociocultural competence includes the knowledge about sociocultural characteristics of countries of studied languages, knowledge of rules and traditions of the concrete foreign culture. Many methodologists characterize the structure of sociocultural competence in various ways. For example, A.V. Guseva supposes linguistic means which allow to interact successfully [3].

O. V. Eremeeva designates the following components of sociocultural competence: 1. Subcompetence of the regional geography includes geographical names, political structure of a country of studied language, holidays, characteristics of national cuisine. Including of this subcompetence in sociocultural competence is a disputable issue. For example, I. A. Zimnjaja considers that it is a component of the communicative competence [6], when V. V. Safonova supposes that it is a component of sociocultural competence. 2. Subcompetence of behavior includes rules of behavior in different situations, rules of etiquette, non-verbal communication. This subcompetence reflects the level of abilities of cross-cultural interaction and overcoming of cross-cultural difficulties. 3. Psychological subcompetence means development of respect to native speakers and their culture, development of empathy, tolerance, overcoming of egocentrism. Developed empathy means tolerance to the conversationist's opinion. That helps to avoid problems with communication. 4. Lingvocultiral subcompetence combines knowledge of vocabulary without equivalents and connotative vocabulary, phraseological units, ability to choose appropriate lexical units. 5. Lingvosociocultural subcompetence includes features of dialects, different styles of communication [5].

**Conclusion.** Thus, during the process of development of sociocultural competence all the units of language, which reflect the specific cultural characteristics of a country of studied language, should be known. Students should know geographical and historical characteristics, political and economic factors. Also students should be able to recognize similarity and difference between the culture of their native country and the culture of

country of studied language. In such a way empathy is developed. Empathy means the ability to correlate the native culture with unnative one, helps to get rid of uncertainty during communication. Absence of uncertainty helps to interact with foreign speakers successfully, use sociocultural stereotypes. According to N. G. Bragina's definition, stereotype means "a category of culture, which is regularly used in verbal and non-verbal texts and is considered to be the necessary part of society (a term of understanding each other) and is estimated as standard" [2].

Sociocultural competence helps to get rid of communicative problems. If sociocultural competence is not formed, difficulties take place. The conversationists seem to speak the same language without any problems, but can't understand each other. Developed sociocultural competence is important term of successful communication. It is necessary to combine different ways and means, pay attention to all the kinds of speech activity in order to organize educational process. Introduction in the culture of a country of studied language can be realized by using of the material in regional geography, authentic texts. As for authentic texts, they should be actual, motivate to speak actively. In such a way students' knowledge about mentality and culture of countries of studied language is formed effectively.

## Reference list

- 1. Azimov, E. G. Dictionary of methodical terms (theoretical and practical teaching languages) / E. G. Azimov, A. N. Shchukin. Spb.: Zlatoust, 1999. 334 p.
- 2. Bragina, N. G. Linguistical nomination and cultural stereotypes / N. G. Bragina // Linguistical nomination: thesis of report, international scientific conference. – Minsk, 1996.
- Guseva, A. V. Development of sociocultural competence during the process of teaching oral speech (School with the profound studying of foreign languages, the French language) / A. V. Guseva // abstract of dissertation... Candidate of Pedagogic Science. 13.00.02. – M., 2002. – 38 p.
- Elizarova, G. V. About the nature of sociocultural competence / G. V. Elizarova // Word, sentence and text as interpretative systems. – Studia Linguitica 8. – Spb.: Trigon, 1998. – 25-31 p.
- 5. Eremeeva, O. V. The question of structural and substantive content of social and cultural competence [Internet resource] <u>http://cyberleninka.ru/article/n/k-voprosu-o-strukturnom-i-soderzhatelnom-napolnenii-sotsiokulturnoy-kompetentsii</u>.
- 6. Zimnjaja, I. A. Key competences a new paradigm of the result of modern education [Internet resource] <u>http://www.eidos.ru/journal/2006/0505.htm</u>.
- Melnikova, D. S. Development of sociocultural competence of the students of the Faculty of Art and Graphics, the pedagogical university (based on material of the English language) / D. S. Melnikova // abstract of dissertation... Candidate of Pedagogic Science. – 13.00.02. – Spb., 2005. – 243 p.
- Riske, I. E. Development of sociocultural competence of the students of the high level of studies based on material of the English Poetry / I. E. Riske // abstract of dissertation... Candidate of Pedagogic Science. – 13.00.02. – Spb.: RSPU, 2000. – 259 p.
- 9. Safonova, V. V. Studying of languages of international communication in the context of the dialogue of cultures and civilizations / V. V. Safonova Voronezh, 1996.

# THE PROBLEM OF ACQUISITION OF ENGLISH PHRASAL VERBS

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Phrasal verbs are a specific feature of English. These tricky units are widely used in all styles of speech, spheres of life and literary sources. They are an indispensable part of the language. But their learning and acquisition represents considerable difficulties for learners of English and sometimes seems to be an insoluble problem in spite of variety of methods and ways of learning.

The aim of the study of the present article is to find out the reasons for use of phrasal verbs by the students of our college, to make up a list of the most popular methods of their memorizing and rank conventional activities and drills in order of their effectiveness as viewed by future teachers of English.

**Material and methods.** Critical analyzing the scientific and the Internet sources, collecting information, questioning, sorting out and describing are helpful in our investigation of the problem.

**Results and discussion.** English phrasal verbs are rather complicated linguistic structures consisting of verbs and prepositions or adverbs. They represent some inseparable semantic units and cause certain difficulties in understanding and acquisition. Firstly, all constituents have a single meaning. Secondly, they have different meaning in different contexts (take off - depart, take off - remove). Thirdly, the number of meanings of the same verbs is unavoidably increasing.

According to generally accepted classifications these tricky combinations are divided into:

1) transitive (put off) and intransitive (break down);

2) separable (turn off) and inseparable (run into);

3) phrasal (give up), prepositional (go on) and phrasal-prepositional(put up with) [1].

The existence of phrasal verbs alongside with their verbs-synonyms reflects a long history of origin and development of these structures. William the Conqueror in 1066 made French prevail on the territory of England while English was widely used mostly by common people. Afterwards English phrasal verbs acquired formal and informal spheres of use and, as a result of other language interference, now can be easily substituted with synonyms of French, Latin and Greek origin. The use of modern phrasal verbs isn't limited by the style of speech. Consequently, the problem of their acquisition becomes of primary importance. The survey carried out at our college helps to single out the main reasons for studying phrasal verbs as viewed by the respondents: learners master verbs to enrich their speech (68%), to make it more varied (20%) and show a good command of the language (12%).

Though it seems to impossible to master about 12 thousand phrasal verbs, dedicated learners of English are constantly striving to learn as many as possible. The analysis of the net sources enables to make up the following list of tips for learning phrasal verbs:

- learn by topic alongside other verbs with related meaning (take off, depart, land, touch down);

- learn one verb with different prepositions or adverbs (look up, look down, look after, look for, etc.);

- consult dictionaries to make sure you understand the meaning precisely;

- study verbs in their contextual use ("I don't think I'm cut out for teaching" [2; p.37]);

- personalise phrasal verbs making up sentences about your life;

- memorise no more than 15 verbs a day and do it regularly;

- revise and reuse them frequently;

- use in your own speaking and writing;

- have useful phrasal verb tests focusing on one verb (take up, take to, take off, etc.);

- use pictures to understand the meanings;

- think positively about phrasal verbs.

Some text-books intended for training phrasal verbs contain simple and understandable system of exercises to ease their mastering, which implies the introduction of the verbs in Russian and their contextual use followed by a varied set of lexical drills [2]. For advanced learners meanings of phrasal verbs in some text-books are given through definitions [3].

In our research work we can't but consider traditional approach to teaching and learning words from point of view of its effectiveness. "Exercises to acquire vocabulary include meaning interpretation, word reinforcement and communicative use" [4; p.97]. The respondents were asked to rank different activities belonging to each of the three consistent methodical steps in order of their effectiveness in memorising English phrasal verbs.

They consider synonyms (68%), translation (52%) and context (40%) to be the best ways of exploring vocabulary while gestures (12%) and antonyms (8%) the least efficient of all.

In their opinion, one should practice completion (56%), association (44%) and translation (36%) to achieve sound verb reinforcement. At the same time transformation (36%) possesses the least effectiveness.

The most preferable activities in communication use are story-telling (64%), context (60%) and pictures (8%).

The reliability of these results is relative, not absolute. One is doubtedly to master hundreds of phrasal verbs practicing the most efficient of the above-mentioned activities. Considering individual peculiarities of all cognitive processes is relevant here.

Nevertheless, critical analysis of the scientific, Internet sources and the respondents' opinion enables us to put forward some helpful ideas concerning mastering phrasal verbs:

- make sure that you really need them and are eager to learn;

- follow three-phase framework in teaching and learning;

- choose the system of drills and a source of learning according to your level of language acquisition (a beginner, an intermediate or advanced learner);

- atomic globules such as constellations and cobwebs are very efficient regardless your level of English;

- do not avoid making up sentences and situations of your own;

- revise and reuse phrasal verbs as often as possible.

**Conclusion.** If a person is full of eagerness to get profound knowledge of English, acquisition of phrasal verbs is unavoidable as they are widely used in colloquial and literary forms of the language. It is advisable for a learner to study all possible methods and choose the most suitable for his (her) acquisition of these lexical units. But whatever you choose, do not forget about effectiveness and soundness of their communicative use.

Reference list:

- 1. Phrasal Verbs in English: useful information [Internet source]. Access: www.native-english.ru/articles/phrasal-verbs.
- 2. Totchilina, A. English phrasal verbs (usage and exercises) / A. Totchilina, O.Shinkareva. Minsk: TetraSystems, 2011. 208 p.
- 3. Malcolm Mann, Steve Taylore-Knowles. Destination B2. Grammar and Vocabulary. – Macmillan Education, 2007.
- Milrud, R. English Teaching Methodology / R. Milrud. Moscow: Drofa, 2005. 253 p.

## VERBALISATION OF CLAIMS FOR DESIRABLE PERSONAL TRAITS AND APPEARANCE OF A FUTURE PARTNER IN MATRIMONIAL ADVERTISMENTS

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Claims are part of many spheres of everyday and professional life, such as politics, psychology, sociology, etc. There are three groups of methods for verbalisation of claims: lexical, syntactical and rhetorical [1, p. 34].

In this article we have analysed what means of language are used to verbalise claims for personal traits and appearance of a future partner in matrimonial advertisements. Such kind of analysis is important in the modern world as effective communication with one another is the basic criteria for building professional, domestic and friendly relationships. However, claims in the matrimonial sphere have not been well studied yet, although there is great demand for the research of such kind. That is why this issue determines the relevance of the paper.

The aim of our research is to analyse how men and women express their claims in describing desirable partner's appearance and personal traits in matrimonial advertisements.

**Material and methods.** The research is carried out with the material of matrimonial advertisements in English on the web site British Matrimony, Cambridge Dictionary, Oxford Learner's Dictionary and Longman Dictionary. We have used comparison, description and quantitative research methods.

**Results and discussion**. Having analysed 40 advertisements we have concluded that the most typical method of verbalization in matrimonial advertisements is the lexical one. The majority of desirable partner's traits are expressed via short words and phrases of positive and neutral connotation. Negations are used only two times. Women and men often search for a partner's character traits that would correspond to their own personality.

The prevailing qualities that men search in a future partner are the following.

1. Beauty of a woman (13 out of 20). It is expressed with such adjectives as *pretty* (4 men), *good-looking* (4 men), *beautiful* (3 men), *cute*, *attractive*. The adjectives *pretty*, *good-looking* and *attractive* refer to appearance of a person. Whereas, the word *beautiful* can denote the beauty of personality as well as. The word *cute* is more emotionally coloured than other words as it is often used to speak about someone or something small or young [2].

2. Mental abilities (8 out of 20). Men would prefer women's mental abilities corresponding to the adjective *smart* (7) and *intelligent* (1) to express a desirable woman's cleverness. We can see that the adjective *smart* is used more often and can mean 'neat' as well as be a synonym to the word *intelligent* [5].

3. Figure (8 out of 20). Six men show their interest in a woman's body shape by using the adjective *tall* (6), which is a neutral one. Other words that are used to refer to a body shape -a great body (1) and curvy (1) -a more emotionally coloured ones and less frequent in general usage.

4. Education. Four men would prefer a woman to be educated. Two of them claim at least high school education: *educated at least to high school*; *at least A-level educated*; the other two simply pointed out that a woman should be *educated*.

5. Family values (3 out of 20). Men convey a woman's role in creating and caring for the family in the following phrases: 1) (is) looking for a

*serious relationship*; 2) *capable of handling a family*; 3) (*should be*) *able to take care of a family well*. These phrases indicate the leading role of a woman in caring for the family.

6. Sense of humour. Three men give their preferences to women who have *a sense of humour* (1) – 'ability to understand funny things' [1] – and are *humorous* (2) – 'funny, or making you laugh' [1].

Men also value such personal features as *kind* (2), *caring* (2), *adjustable* or *adaptive* (2), *be presentable* and *have a neat appearance. Adaptive* is more appropriate to use than *adjustable* when speaking about a person. These two words are used by men who are workers and might mean variable financial situations. Words *be presentable* and *have a neat appearance* tell us that certain men wish a woman to help him build public connections or represent their family well.

Other traits of character that are considered important are *nice*, *loyal*, *honest*, *respectful*, *reliable*, *laid-back*, *humble*, *understanding*, *not nagging* and *lively*. The adjectives are neutral and are often used in describing a person. Moreover, these words can show people's backgrounds, for example, a man searching for *humble* wife is of Muslim origin. A man of Indian origin expresses his desire to settle in Britain by saying that he wants to marry *a proper UK citizen*. A British man shows his desire to be married to another British citizen by claiming that she should be his *ethnic origin*. A man's claim to have a *well-settled* woman shows his intention to support their future family together.

As far as women are concerned, the prevailing qualities they want to see in a partner are the following.

1. Concern for women (8 out of 20). Women convey this using the words *caring* (6), *should have a caring nature* and *value me*. These words are neutral and have positive connotation.

2. Love (6 out of 20). Women point out that their partners should be loving ones using words *loving* (2), *loves me* (2), *loves kids and wife* and even *loves dogs like me*.

3. Mental abilities. Five women associate desirable men's mental abilities with the adjectives *knowledgeable* (1) and *smart* (4). As we already mentioned *smart* means 'intelligent' or 'neat', whereas *knowledgeable* means 'knowing a lot' especially about a specific area [5]. Only one woman pointed out that a man should have a degree by using the adjective *educated*.

4. Honesty (5 out of 20). The same number of women showed that they want to have an *honest* (3), *truthful*, *trustworthy* man. The word *honest* is used to denote a man who does not lie and hide anything [5]. *Truthful* denotes a person who does not lie, and *trustworthy* person is the one who can be trusted on [5].

5. A sense of humour (4 out of 20). Twenty per cent of women give preference to men who have *a sense of humour* (2), who are *fun* and *funloving*. The last two words are more expressive.

Other important traits of character that women want to see in their partners are: *friendly* (3), *nice* (2) and *sweet*. The adjective are near synonyms with positive emotions, but *friendly* is a neutral adjective, whereas *nice* and *sweet* are more emotionally coloured. Some women prefer responsible (2), *romantic* (2) and *supportive* men. The trait of understanding is mentioned two times (*should*) *understand*; (*should*) *understand my music and my work*.

Three women express their wish for a man to be financially independent: *good financial life*, *good job* (2). The only physical characteristics mentioned are: *speak and spell properly (unless dyslexic), tall* and be *beautiful* or *good looking*.

A woman verbalise her desire to be with a partner but still have frontiers between them by saying that they should *do things together and alone*. Women express claims to such habits as doing sport or travelling in order to have common interests: a) *likes to exercise, likes sports*; b) *travels, likes to travel* 

Apart from these women name such personal traits as *easy to mingle* with, be himself, serious, loyal, decisive, positive, happy, lovely, down to earth, simple, not dominating, decent, kind, good mannerisms, respect elders and my culture, good cook, (who) listen, hard worker and (that wants) to settle down.

**Conclusion**. In conclusion, we may say that for expressing ones claims men and women use mostly neutral words and words with positive connotation. Negations are scarcely used. In many cases men and women search the same traits and hobbies in a partner that they possess themselves. We can see that 75% of men show their interest in appearance, and the rest show their interest in personal traits in the first place. Some men have preferences only in woman's personality, not her appearance. Women, on the contrary, express importance of men's character traits and only a few mention their appearance as well.

#### Reference list:

- 1. Sous, S.V. Yazykovye priemy realizatsii prityazaniya na rol druga i pomoschika vo vlastnom diskurse Welicobritanii i SSHA / S.V. Sous. Minsk: BSU, 2008. 33–37 p.
- 2. Cambridge Dictionary [Electronic Resource]. 2016. Access: <u>http://dictionary.cambridge.org/dictionary/english/</u>. Date of access. 30.10.2016.
- 3. Oxford Learner's Dictionary [Electronic Resource]. 2016. Access: <u>http://www.oxfordlearnersdictionaries.com</u>. Date of access. 30.10.2016.
- 4. British Matrimony [Electronic Resource]. 2016. Access: <u>http://britishmatrimony.co.uk/home/home.php</u>. Date of access. 29.10.2016.
- 5. Longman Dictionary [Electronic Resource]. 2016. Access: <u>http://www.ldoceonline.com</u>. Date of access. 31.10.2016.

## MEANS OF EXPRESSION IN THE GERMAN SENTENCE

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Language becomes more and more democratic, the role of the spoken word and interfluence of written and oral speech increases. Emphasis, expression and actualization come to the forefront. The subject of study is relevant as language is constantly changing and being enriched with new means of expression.

The aim of the study to specify means of expression in the German sentence.

**Material and methods.** The materials are sentences selected from the German-language press: *Die Welt, Die Zeit, Der Spiegel, Der Focus, Der Stern, Der Weg, Die Jungewelt*, and fiction. Descriptive-analytical, comparative and transformational methods are used in the study.

**Results and its discussion.** <u>Expression in linguistics</u> interprets human emotions through linguistic means. The expression makes use of the whole complex of linguistic means and combinations: at the lexical level (emotional and expressive vocabulary), at the syntactic level (emotional and expressive syntax), at the phonologic level (intonation) [5, p. 14].

So, means of expression can be <u>divided into three groups:</u> lexical, lexico-stylistic and syntactic.

<u>Vocabulary with a ting of emotional colouring</u> refers to lexical means of expression. For example, such words as: *sogar, so, noch, auch noch, auch, nomlich, ziemlich*; such interjections as: *ha, ei, ah, ach*; such particles and modal words as: *ja, denn, wohl*; such emotional and modal words, expletives and inserted clauses as: *sehr schade, weiЯt du, na, siehst du*; emotional-evaluative intensifiers: *was fbr ein, welch ein, solch ein, so ein – was fbr ein Glbck fbr dich* [1, p. 205].

I. Lexico-stylistic means of expression are:

- repetition: Das muss ganz sicher und ganz fest bei Ihnen sitzen;
- emotional-evaluative words: <u>GroЯen</u> und <u>dauerhaften</u> Erfolg [3, p. 36];
- metaphor: Es ist so etwas wie der Franz Beckerbauer Pakistans;
- antithesis: *Fast hatten die altдgyptischen Gottheiten in Мьпсhen irdische Konkurrenz erhalten*;
- irony: Der Nachteil: Google weiß, wer wann wohin reist und bombardiert ihn dort womuglich mit Werbung;
- tautology: <u>Wasser</u> wie oft mag dieses <u>Wasser</u> seit der Existenz der Menschheit ausgesprochen worden sein.

Syntactic means of expression include changes in the structure of the sentence and emphatic word order.

II. Changes in the structure of the sentence:

- aposiopesis: Ach, die Krawatte ...! Die habe ich wahrhaftig ganz vergessen ... [2, p. 304];
- ellipsis: Ein solches Leben, einen solchen Hintergrund konnte man sie mit dem Wort Resignation bezeichnen?;
- parceling: Ein Schock konnte mich noch retten. Eine Frage. Zwei Worte;
- expletives and inserted clauses: *Aber*, <u>Gott sei Dank</u>, der Franz war dabei;
- rhetorical question: Soll ich wirklich die Wahrheit sagen? <u>Lieber</u> <u>schweigen</u>;
- expressive negation: <u>In keinem anderen Beruf</u> habe ich die Chance, mit so vielen unterschiedlichen Menschen in Berьhrung zu kommen und neugierig zu sein;
- purposive violation of the word and sentence order (prolepses, anacoluthon, parenthesis, appositions, annexation);
- hyperbole: todmьde, eine Ewig warten [2, р. 366-368].
   III. Emphatic word order:

Emphasis – a visual allocation of a part of the text with the purpose to make it more noticeable, emotionally charged [4, p. 239]. For example: <u>Wei</u> $\underline{M}$ <u>Gott</u>, was kommt ja auf Deutschland zu. In a written form the special format of the text is used <u>italics</u>, underlining, capital letters.

**Conclusion.** Means of expression of in the German language are diverse and are constantly renewed thus being of paramount importance for the German sentence and language.

## Reference list:

- Admoni, V. G. Syntax of Modern German Language / V. G. Admoni. L.: Science, 1973. – 366 p.
- Brandes, M. P. The Text Stylistics. Theoretical course [Text]: textbook / M. P. Brandes. – M.: Progress-Tradition; INFRA-M, 2004. – 416 p.
- Volokitina, A.I. Actual Division of the Statement in the German Colloquial Speech / A.I. Volokitina. – Kuibyshev: The Word, – 1986. – 178 p.
- Kostrova, O. A. Expressional Syntax of Modern German: workbook for students of higher education / O. A. Kostrova; Russian Academy of Education. MPSI. – M.: Flint: MPSI, 2004. – 240 p.
- Malinovich, Yu. M. Expression and Sense of the Sentence: Problems of Emotional and Expressional Syntax / Yu. M. Malinovich. – Irkutsk: Irkutsk University Publishing House, 1989. – 216 p.

# TERRITORIAL PECULIARITIES OF THE ENGLISH LANGUAGE

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The relevance of the problem of language variation caused by social, functional and territorial factors, suggests a number of papers in domestic and foreign linguistics (V.G. Gak, A.I. Home, V.M. Zhirmunsky, L.L. Nelyubin, G. Orlov, V.V. Oshchepkova, L.G. Popov, O.E. Semenets, N. Semeniuk, A.I. Smirnitsky, G.V. Stepanov, G.D. Tomahin, A.I. Cherednichenko, A.D. Schweitzer, V.N. Yartsev, R. Bailey, D. Crystal, W. Labov, G. Turner). Interest in the issues of variability explained by the heterogeneity of the English language and the complexity of its composition, the peculiarities of its functioning in various language situations and territorial habitats.

The aim of the research - is to reveal the specificity of the variants of English.

**Material and methods.** We study the basic variants of English such as the American, Canadian and Australian. The methods of the research. We use comparative method.

**Results and discussion.** English is the most popular language in the world, so this is the official language in many countries of the world, there are many variants for its pronunciation and spelling.

American English. American English appeared in the 17th – 18th centuries, when there were colonization of the North American continent. By the beginning of this process England has already had a national literary language - Standard English. In the future, America has created almost a new language. Not only the British and Irish explored America. The French, the Spaniards, Scandinavians, Germans, Slavs, Italians went there. New nation needed a language that would help to overcome national differences. This language is transformed English. It might be easier in writing, pronunciation, grammar. And it also should contain the elements of different languages [1].

The Canadian version of the English language was developed under the influence of American English on one side and the British version of the other. Therefore, Canadian English has American and the UK rules of pronunciation.

Australian English there appears at the beginning of the colonization of the Australian continent by the British in the XVIII century. English occupied a dominant position on the continent. Australian English closer to the classic British due to the geographical isolation of these countries, so they have not the strong influence of other languages and cultures.

Lexical differences between American options are bigger due to the numerous borrowings from Spanish and Indian languages, which was not in British English. Americans are used the sidewalk instead of pavement, elevator instead of lift, icing instead of frosting. Some words and phrases are Americanisms: highway, mail, movie, truck, gas, and many others. In unstressed syllables in American English suffix -our often replaced -or: color, labor, flavor, humor, parlor. End -re replaced -er: center, meter, liter, theater. In American English, there is a simplification of the writing, the loss of double consonants, such as a traveler. In American English letter combinations ect replaced, for example, connexion (connection), the word 'kerb' write as 'curb', 'grey' like 'gray'. There are also many differences in grammatical forms and rules and idioms, for example, in American English used the old form of past participle of 'get', so the form of the verb to get the British English get – got – got, but in American English get – got – gotten. For example: *I 've gotten 16 Christmas cards so far*. In some cases, American English uses past simple tenses instead of the perfect: in British English with yet, already should be used perfect: *Has he arrived yet?* And in American English may be used the perfect and simple past tense: *Did he arrive yet?* – Both versions are correct.

In American English sound [r] is retroflex, the sound [t] vocalises, when it situated between two vowels, one of which is unstressed, as in "pity", "better", "city" [2].

The formation of the Canadian version of the English language at its an early stage of development was influenced by French, American Indian languages. In this way, the Canadian English got words 'esquimaux', 'canoe', 'caribou'. Many of the words entered in the Canadian version of the lexicon of fur traders and pioneers of the country [3].

In the Australian version differences were registered in the system of forms related to the number of categories. For example, the word "data" in the British variant has both plural and single ("datum"). In Australia, the "data" is used only in the plural, but with the verb in the singular. There were also differences in the use of verbs shall will, should would. Obsolete in England form whilst amongst still exist in Australia along with them the same, but more modern while among [4].

**Conclusion.** So we made sure that each version of the English language has its own distinctive features, due to the historical development, the influence of the languages of neighboring countries, as well as the language of the indigenous population.

#### Reference list

- Evdokimov, M.S, Quick Reference US-British correspondences. / M.S. Evdokimov. M., 2000. – 238 p.
- Schweitzer, A.D. American version of Standard English: Ways of formation and the current status /A.D. Schweitzer //Questions of Linguistics. 1995. – № 6. – P.34.
- Zhluktenko, Yu. The Canadian version of the English language and the definition of kanadizma/ Yu. Zhluktenko// Studies in the Roman and German philosophy. – Kiev: Publishing house at K. un-te, 1975. – pp. 94–98.
- 4. Eagles, G.A. Modern English in Australia/ G.A. Eagles. M. : "High School", 1978. P.4.

# CONCEPTUALISATION OF NOTIONS "FAMILY" AND "NATION" (BASED ON THE STUDY OF "FAMILY" CONCEPT IN GERMAN)

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*Family* and *nation* are the interconnected notions of social reality, which are constantly developing and are being exposed to conceptualization. So, George Lakoff, the American linguist famous for his ideas of the central role of a metaphor in social and political life, has claimed that the political sphere can be represented through a metaphorical prism of family and nation. He has specified two different conceptual models. The first model: «The father as the head of a family who is rather strict». The father's task here is to give a strict upbringing to his children. The second model: «Family is care», and the priority is given to empathy – both parents are responsible for the unity of a family [3, c. 9]. In both family models the structure of dominance and understanding of morals can metaphorically refer to the notion *nation*.

The study is relevant as it considers the functioning of the concept family among authentic speakers.

The purpose of the study is to link the concept family in German and its fixation in political sphere in Germany.

**Material and methods.** The material of the study are the words within the concept *«Familie / family»* in German political discourse.

The descriptive-analytical method and the method of total selection of language material on the subject are used to achieve the purpose.

**Results and discussion**. Vocabulary defining family relations is rather often reflected in the political sphere. For example, *leibliche-fürsorgliche Mutter* – a birth mother who cares for her family. In modern German political discourse there is a metaphorical phrase characterizing the German chancellor – *gewählte-fürsorgliche Mutter* (the mother elected by vote) or *Mutter der Nation* (the mother of the nation). It means that the German chancellor is related to her nation (Landeskinder) as is mother to her own children.

According to F. Rigotti: *«Man setzt Bestandteile eines politischen, nationalen oder internationalen Systems mit einzelnen Familienmitgliedern gleich und begreift bestehenden Beziehungen als Verwandtschaftsverhältnisse».* – *«The components of political, national or international system are equaled to certain family members and are related like family members [3, c. 74]. In that way, an analogy is drawn between concepts nation and family.* 

Heutige Politik ist die ganze Organismus, Familie, Schiff. Das Staatsschiff hat einen Steuermann an Bord und die Konstitution eines Staatskörper bezeichnet. – Today's politics is equaled to an organism, a family, a ship. The state vessel has its navigator onboard and the state constitution. It's evident that the words *a ship* and *an organism* are interpreted as *the state*, and the notion *family* is interpreted as *the nation*.

Nation - (from lat. natio - a tribe (of the same origin with similar language and customs)), nation, relatives, clan, family, political community of citizens of a certain state.*Family*is a group of people who are related to each other, a clan. So, we come to understanding that the family is an institutionalized community which generally represents a closed and functioning according to certain rules community [1].

In modern German political discourse *the nation* is\_identifieded with the notion *family*: *«Einigkeit und Recht und Freiheit für das deutsche Vaterland, danach lasst uns alle sterben, brüderlich mit Herz und Hand. Einigkeit und Recht und Freiheit sind des Glückes Unterpfand – blüh im Glanze dieses Glückes blüh deutsches Vaterland». – «Unity, justice and freedom for the German fatherland! Let us all strive for this purpose brotherly with heart and hand. Unity and justice and freedom are basis of happiness. Flourish in the glow of this happiness, flourish, German fatherland!» [2].* 

*«Wir streben für unser Vaterland, alle brüderlich mit Herz und Hand, weil wir durch das Blutprinzip die deutsche Staatsangehörigkeit erhalten und zur deutschen Familie gehören.»* – *«We strive for our fatherland, brotherly with heart and hand, because we keep our nationality on the principle of blood relationship and refer to the German family»* [3, c. 76].

**Conclusion.** Thus, we conclude arguable that there is an interrelation of such notions as *family* and *nation*, which is reflected metaphorically through similarity of certain political relations with the principles and lifestyle of a typical German family.

#### Reference list:

- 1. The Big Encyclopedia dictionary [electronic resource]. 2016. Access mode: http://www.vedu.ru/bigencdic. Date of access. 08.03.2016.
- 2. The Free encyclopedia Wikipedia [electronic resource]. 2016. Access mode: https://en.wikipedia.org/wiki/Deutschlandlied. Date of access. 25.10.2016.
- 3. Tjarks, A. Familypicture ecual woldpicture / A. Tjarks. Berlin: VS publishing house, 2010. P. 9–77.

## FROM THE HISTORY OF THE STUDY OF THE ZOONYMS

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Zoonimika represents as insufficiently explored field of onomastics, which examines the specifics of the origin, development and functioning of the animals' proper names (nicknames). Mostly of the zoonimic publications in the USSR was made on the facts of the Turkic, Finno-Ugric and Caucasian languages. Almost all articles of this type were compared with the Russian nicknames or simple enumerated the Russian nicknames, which were popular in this region. The existing articles are not the same as the volume of the described material and the level of linguistic understanding.

*V.A. Nikonov* in 1969 said that zoonomika in our country has not yet begun. There are many researches about nicknames of the horses, cows, dogs, cats, even some birds, fish and insects in another countries. But the scientific value of this works is negligible, although zoonomika could be useful in ethnographical and linguistical plans [1, p. 265].

In 1971 A.A. Smirnov noted that zoonomika was and still is an unexplored field of onomastics in the theoretical plan [2, p. 229].

According to *P.T. Porotnikov*, zoonomika belongs to the category of an unexplored field of lexica. It can be connected not only with the difficulties of the collecting of different nicknames, but with the lack of the practical need for the study of this linguistic material [3, p.28].

The purpose of this research is to study the linguistic researches, which analyse and examine the nicknames in different aspects.

**Material and methods.** The material for the study was the scientific articles of famous scientists, which are connected with the linguistic examination of the nicknames.

To achieve this purpose have been used descriptive method, which was realized in such methods as studying, generalization and interpretation of this material. The application of this methods allows to determine the degree of the study of the zoonimical system and to identify the future perspective directions in this sphere.

**Results and discussion.** The linguistic study of the zoonyms began in the late XIX – early XX centuries.

The special interest to the study of nicknames appeared in the 60-70-ies of the last century, when it was published the whole circle of the articles in the Slavonic, Turkic and Finno-Ugric zoonimia.

It should be noted that a certain amount of the zoonyms were included in the etymological dictionaries by A.G. Preobrazhensky, M. Fasmer, A. Bruckner and other linguists.

In different times were published a lot of the articles about structural, semantic, lingua-cultural and other features of the nicknames.

Zoonyms with the point of the structure were researched by K.N. Burakov, N.K. Dmitriev, Z.G. Uraksin, G.A. Arkhipov, V.I. Ivanov, V.V. Kochnev, O.M. Zharinova, E.S. Otin, P.T. Porotnikov and others.

One of the first works about the *structural features* of the zoonyms was the article of the founder of the Bashkir linguistics *N.K. Dmitriev*, who

analyzed 12 nicknames of the dogs, which were collected in the result of the linguistic folklore expedition [4].

Some *semantic features* of the zoonyms attracted the attention of such researchers as K.N. Burakov, N.A. Baskakov, S.G. Lobach, V.M. Mokienko, O.I. Fonyakova, P.T. Porotnikov and others.

For example, during the dialectological expeditions (1970-1975) on the territory of Belarus was collected material, some of which, in particular, the cows' nicknames (only 28), became the subject of the study *S.G. Lobach*, who remarked that the zoonyms are one of the important sources of lexica and word-building structure of the Belarusian language [5, p. 176]. This author researched this nicknames in the semantic aspect, because wanted to identify general principles of the nomination.

*F.A. Litvin* made the comparative analysis of the zoonyms in the Russian and English languages [6]. This author noted, that in our time was destroyed the traditions of the nicknames' nomination, that's why, for example, the **cow** can get the nickname  $\mathcal{K}osedpuha$ , the **dog** –  $\mathcal{Д}\mathcal{K}oxap$ , the **cat** *Eopuc Huколaeвuч* and others. Also this researcher said that in a professional sphere of the nomination we can see some changes, for example, if give a nickname to the horse, no need say or write about breed in this nickname.

Some researchers (*Z.R. Sadykova*, *R.N. Bosakova* and others) researched the nicknames of the different regions in a comprehensive plan.

The *phonetic features* of the nicknames attract the attention of many linguistics such as *E.V. Guseva*, *P.A. Petkevich* and others.

The separate works about the zoonyms are connected with the *ethno-semantical aspect* of nicknames (*N.V. Solntseva*), the *ethno-cultural specificity* (*O.V. Galimov*, *D.B. Lugovoi*).

*D.B. Lugovoi* considered that the Russian zoominika is a culturalhistorical phenomenon of the Russian national language [7].

The certain number of the linguists noted that need to study the zoonyms for understanding of the linguistic picture of the people's world (E.V. Guseva), for studying of the ethnogenesis of the Slavonic people (S. Warhol).

As rightly pointed out by *A.V. Superanskaya*, in the nicknames can be represented the history of the communication people with pets and this linguist noted that need to study this class of the proper names, because it is the specific type of the onomastic lexica, which must be study in the future [3].

Evidently, that the researching of the zoonyms is important for the studying the history of the language's development in general and for individual lexical models and classes.

In addition, modern zoonimika is an open onomastic system. Many words come to this sphere; the motivation of it is different. That's why need to study of the nicknames with different points and aspects and need to use accessible sources of the extralinguistic information about certain kind of pets.

In our time we have many articles and monographs, which are connected with the comparative analysis of the Russian zoonyms with the nicknames in the German, French, Chinese, Polish and other languages.

**Conclusion.** So and so, a certain number of scientific articles are about nicknames of different pets in so many aspects and this works must be study, because it has a certain value for study and understanding zoominika in all and for its future and development.

Работа выполнялась при финансовой поддержке Белорусского республиканского фонда фундаментальных исследований.

## Reference list

- 1. Никонов, В.А. Нерешённые вопросы ономастики Поволжья / В.А. Никонов // Ономастика Поволжья 1: Труды I конференции по ономастике Поволжья. – Ульяновск, 1969. – С. 269–274.
- 2. Смирнов, А.А. Из зоонимии Горьковской области / А.А. Смирнов // Ономастика Поволжья 2: Труды II конференции по ономастике Поволжья. Горький, 1971. С. 299–302.
- Суперанская, А.В. Теория и методика ономастических исследований / А.В. Суперанская, В.Э. Сталтмане, Н.В. Подольская, А.Х. Султанов. – М.: Наука, 1986. – 254 с.
- 4. Дмитриев, Н.К. Собачьи клички у башкир / Н.К. Дмитриев // Доклады АН СССР. Серия 8. № 15. Ленинград, 1928.
- 5. Лобач, С.Г. Заонімы (уласныя назвы-мянушкі народаў) / С.Г. Лобач // Беларуская анамастыка. Мн.: Навука і тэхніка, 1977. С. 176–178.
- 6. Литвин, Ф.А. Сопоставительное изучение зоонимов в русском и английском языках / Ф.А. Литвин // Англо-русские языковые соответствия. М., 1981.
- Луговой, Д.Б. Русская зоонимия как культурно-исторический феномен русского национального языка / Д.Б. Луговой // Сельская Россия: прошлое и настоящее: доклады и сообщения IX российской научно-практической конференции, в 3 ч. Ч. 3. – М.: Энциклопедия российских деревень, 2004. – С. 487–488.

# THE REALISATION OF THE LEXEME OF HAPPINESS IN RUSSIAN AND ENGLISH PROVERBS

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Human values define the sense and the purport of human being. The nature of value cannot be considered in isolation from the lingual aspect that characterizes both the whole linguistic world-image and a linguistic personality.

The relevance of the research depends on an important connection between culture and language; the research of the lexeme of happiness can let us discuss national and cultural aspects of a certain national picture of the world which can be found in a national language.

The aim of the study is the analysis of lingua-cultural characteristics in the lexeme of happiness based on proverbs.

Material and methods. The research object is Russian and English proverbs where the lexeme of happiness is presented. The following methods were used in the research: a contextual analysis, a descriptive method (observation, interpretation, synthesis).

**Results and discussion.** Valuable preferences of the peoples can be found in their proverbs and sayings. Proverbs are an integral attribute of a national folklore and culture. They show a certain nation's life, views, character and a specific perception of reality.

A specific feature of any nation proverbs is their national origin and a unique motivational basis.

According to the analysis of Russian and English proverbs we can make a conclusion that such terms as fortune, a spoilt child, fate, hope, luck are also in a conceptual domain of the lexeme of happiness: баловень судьбы; a child of fortune; счастье скоро покинет, а добрая надежда никогда; while there is life, there is hope; better be born lucky than rich, nothing succeeds like success.

The lexeme of happiness is connected with such terms as:

- mind (Счастье ума прибавляет, несчастье последний отымает);
- study (Учение в счастье украшает, а в несчастье утешает, Failure teache ssuccess);
- family and children (Happy is he who is happy in his children);
- envy, jealousy (Завистливый по чужому счастью сохнет);
- misfortune (Fortune is fickle, misfortunes tell us what fortune is);
- a book (Книга в счастье украшает, а в несчастье утешает).

It should be said that there's fugacity of happiness both in Russian and in English proverbs: счастье вечно не бывает, горе вместе с ним живет; счастье не палка: в руки не возьмешь; fortune is like glass; fortune is easily found but hard to be kept.

The material analysis with a presented vocabulary shows us a close connection between the lexeme of happiness and such antonyms as grief, misfortune; their interconnection can be found in the proverbs: счастье отойдет, много бед наведет; счастье отпало, ничего в доме не стало; по joy without alloy, who has never tasted bitter, knows not what is sweet. So a proverb makes it clear that an event has its sense only in comparison with another one because they're connected.

A person has only one possible point of view comparing his fortune and misfortune: fortune is a desire that has a great value; you should escape misfortune though it's difficult to do, because: где беде быть, там ее не миновать. A certain kind fatalism, resignation to one's fate, passivity can be found in some proverbs: it never rains, it always pours,  $\kappa$  одному счастье валом валит, от другого валом отваливает, счастье, что волк: обманет да в лес уйдет. The assessment and the emotionality of judgments are highlighted here.

There's also ambiguity of grief, joy and happiness in some proverbs: и май бывает ненастен, и в счастье человек бывает несчастен; call no man happy till he is dead.

It should be said that both English and Russian proverbs tell us that only a person himself is responsible for his happy living and feelings: человек – кузнец своего счастья; кто за счастье борется, к тому оно и клонится; счастье в воздухе не вьется – оно в борьбе достается; every man is an architect of his own fortune; fortune is good to him who knows how to make good use of it.

**Conclusion.** A comparative analysis of proverbs and sayings with the lexeme of happiness can let us define some common features between Russian and English proverbs:

- There's fugacity and instability of happiness: счастье с несчастьем, что вёдро с ненастьем: живут переменчиво; fortune is like glass;
- It's said in both English and Russian proverbs that happiness cannot be the result of personal advantages, one's activity, mind and work: счастье что трясье – на кого захочет, на того и нападет; fortune favours fools;
- The description of a personal mental state when somebody is happy is similar: счастливые часов не наблюдают; he dances well to whom fortune pipes;
- There're some proverbs both in Russian and English languages that tell us, happiness is impossible without grief: не было бы счастья, да несчастье помогло; who has never tasted bitter knows not what is sweet;
- Both Russian and English sayings tell us that mostly a person himself makes his one destiny, they express a strong faith in his abilities: счастье на стороне отважных; fortune is good to him who knows how to make good use of it.

So the idea of a person's morality and his consideration of human values can be found both in Russian and English proverbs.

The ideas of happiness in sayings can also be value judgments concerning the whole life.

A conceptual domain of the lexeme of happiness in both languages is a complex system that includes two main parts: even-based and emotive parts. An even-based part includes some information about an event of human life in reality, expressed in a proverb; an emotive part shows us a personal mental state. The analysis of Russian and English proverbs tells us these meanings of the lexeme of happiness in both lingual world-images are approximate to each other. That's because any person's perception of himself is unique in spite of his nationality (his physical and mental state, lifestyle and e.x.)

#### Reference list:

- 1. Zhukov, V.P. Russian dictionary of proverbs and sayings/ V.P. Zhukov. M.: Russian language. 2000. 537 c.
- 2. Karaulov, Y.N. Russian language and linguistic personality/ Y.N. Karaulov. M.: Sience. 2006. 132 c.
- Kuzmin, S.S. Russian-English dictionary of proverbs and sayings / S. S. Kuzmin, N.L. Shadrin. – M.: The IIB Lan'. – 1996. – 352 c.

# **COMPOUND WORDS IN BBC NEWS ARTICLES**

## A. Runets

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The English language is constantly developing and in the first instance, we can see it in the vocabulary. Compounding, one of the oldest methods of word-formation occurring in all Indo-European languages, is especially developed in the English language. English has made use of compounding in all periods of its existence. Modern English language is characterized by big capacity in producing compound words. The best way to study the process of modern compounding is to analyze mass media texts. This style is known to quickly respond to all changes in the language in particular. BBC NEWS is the most established service in Great Britain and stays the official mass media for the United Kingdom, that is why we've chosen its articles for the analyses.

The aim of our research was to classify and analyze compound words in articles of BBC NEWS.

**Material and methods**. To carry out the research we've analyzed over 70 compound words from 20 articles of BBC NEWS texts. The major methods of the research are descriptive and analytical methods of linguistic research with elements of quantitative calculations.

**Results and discussion.** One of the oldest and multi-purpose means of word building is stem-composition. This method of word building is still productive and one third of all neologisms are produced by means of this method [3, p.158]. There exist many definitions of a compound word. In the lexicology of modern English language it is said, that compound words are words consisting of at least two stems which occur in the language as free forms. In a compound word the immediate constituents obtain integrity and structural cohesion that make them function in a sentence as a separate

lexical unit [2, p.108]. The integrity of the compound word is based on the fact, that the meaning of the compound word cannot be discovered from the combining the separate meanings of all stems of the compound. This integrity differs compounds from word phrases.

There are a few classifications of compound words. According to the structural one, compounds can be neutral, syntactic and morphologic. In neutral compounds the process of combining stems takes place without any linking element, e.x.: *blackbird*. Also neutral compounds can divided into non-affixal, derived compounds and compounds with abbreviation stem. In morphological compounds the stems are combined with a linking vowel or consonant, e.x.: *handiwork*. Syntactic compounds are formed from the segments of speech and they save in their structure articles, prepositions and adverbs, e.x.: *good-for-nothing, mother-in-law* [1, p.110].

We have analyzed over 20 articles and classified the compounds in the following way.

1. <u>Nouns</u>

1.1. Neutral

1.1.1. Non affixal: *immunotherapy*, *lifestyle*, *classmates*, *timeline*, *countdown*, *blueprint*, *businesswoman*, *Eurozone*, *honeymoon*, *earthquake*, *showdown*, *weekend*, *knockout*, *headlines*, *highlight*, *whitewash*, *ransomware*, *cybercrime*, *broadband*, *scorecard*, *windfall*, *loopholes*, *households*, *mudslides*, *meltdown*, *broadband*, *guidelines*, *chairman*, *wildlife*, *background*, *handprints*, *landmark* 

1.1.2. Derived compounds: moonshot, body-slamming, counterparts, fishermen, householders, taxpayers, lawmakers, ringleaders

1.1.3. With abbreviation stem: co-operating

1.2. Syntactic : round-the-clock, vis-à-vis, hit-and-run, powersharing, front-runner, bread-and-butter, fellow-actor, money-laundering, euro-area

1.3. Morphological : spokeswoman, spokesman

2. Adjectives

2.1. Neutral

2.1.1. Non-affixal : heavyweight, superfast

2.1.2. Derived compounds : London-born, Bollywood-themed, eyecatching, tax-avoiding, south-western, highlighting, self-employed

2.1.3. With abbreviation stem: -

2.2. Syntactic : 12-year-old, Thai-Malaysian, 41-year-old, thickskinned, right-hand, 26-year-old, London-born, Bollywood-themed, 10-yearold, eye- catching, tax-avoiding, high-speed, south-western, last-minute, selfemployed

3. <u>Verbs</u>

3.1. Neutral

3.1.1. Non-affixal : to kidnap

**Conclusion.** According to the results of our research we can say, that neutral compound nouns and syntactic compound adjectives dominate in the articles of BBC NEWS. The compound nouns are formed mainly by the combining 2 stems without any linking element. Among the compound adjectives we can see a lot of syntactic compounds formed with the derived stem.

#### Reference list

- 1 Antrushina, G.B., Afanasyeva, O.V., Morozova, N.N. Lexicology of the English language / G.B. Antrushina, O.V. Afanasyeva, N.N. Morozova M.: Vysshaya Shkola, 1999. 288 p.
- 2 Arnold, I.V. Lexicology of the modern English language / I.V. Arnold. M., 1986. 254 p.
- 3 Haritonchic, Z.A. Lexicology of the English language / Z.A. Haritonchic. M.: Vysshaya Shkola, 1992. 229 p.

# CONCEPTS "HOUSE" AND "FOREST" IN THE FAIRY-TALE DISCOURSE OF DIFFERENT CULTURES

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The discourse as one of directions in modern linguistics provides studying of various aspects of its key oppositions. The urgency of our research is directly connected with such aspects of the fairy-tale discourse as the concepts "house" and "forest", because they have become the integral elements of the friend-or-foe opposition. A fairy tale's basis is the initiation of its main characters, with the house serving as a starting point for it, the forest as one of the central scenes of action, and again the house, but already as a final scene of action. Such sequence allows us to speak about spiral construction of the initiation and the plot of fairy tales in general.

The aim of the research is to define the importance of the concepts "forest" and "house" in the fairy-tale discourse on the material of fairy tales.

**Material and methods.** The material of the study are Russian, German and Kazakh magic fairy tales. While the studying descriptive, inductive, cultural-historical and comparative methods have been used.

**Results and discussion.** The house is usually defined as the starting point and the very beginning of fairy tales. In "The Materials for a Dictionary of the Old Russian Language" by I.I. Sreznevsky a number of interpretations of the house can be found. Among others are the following: "dwelling, building; economy, house arrangement; family, relatives; generation; property; temple, church" [3, p. 699–701]; meanings of the word "shelter" are various as well: "roof; tent; room, relaxation; protection, cover" [3, p. 1326]. On the basis of these examples we can notice that the house was of

importance in national consciousness, and was highly esteemed, considering such meanings as "family", "house", "generation", "temple" and "church". Shelter as the symbol of protection, cover, roof over the head corresponds with the house in a natural way, creating a wonderful image of the protected space appreciated by all who appears there.

The forest is an exact opposite to the house. In fairy tales, magic forest is the best place for initiation, which is one of fairy tale's major components. Forest performed such function not by chance, and the fairy-tale texts themselves approve it.

The Kazakh magic fairy tale "A Good Man and an Ill Man" is a bright example of the initiation, which takes place in the forest. This fairy tale represents two main characters, as we can see it in the title. The both are generalised images of good and evil. Both protagonist and antagonist have visited a shack in the forest. The kind man found it earlier: "The good man went further. He entered a dense forest. Then he saw a little shack and decided to take a rest there." [4, p. 30]. As a result, the good man had luck: he overheard the talk between a wolf, a fox and a lion, then he married a beautiful Bey's daughter and became a respected well-to-do man in his aul. The ill man, vice versa, was devoured by the animals.

The fairy tale "The Forest House", by the Brothers Grimm narrates about three sisters. All the sisters were lost in the forest. The older and the middle sisters have not fed animals, which lived in the house. That is why the young women were locked in the cellar. The younger sister was polite with all who lived there. Then she married a disenchanted prince: "And this [the spell] had to last until the girl, which will be kind not only towards people, but also towards animals came to us" [1, p. 323].

In the fairy tale «The Firebird and Princess Vasilisa» by A.N. Afanasyev all the problems of the protagonist started as he picked up the Firebird's feather in the forest: "Woe is me! – the archer thought. – Why did I take the golden feather? Why did I not listen to my horse?" [2, p. 346]. But in the end of the fairy tale the main character married gorgeous princess Vasilisa. The initiation was over, and the archer was restored to happiness; he entered his new home. However, the place where all started, was namely the forest.

**Conclusion.** Thus, we have to notice, that concepts "forest" and "house" both correlate and complement each other: even the forest becomes home for protagonists, and the own house in its turn can't serve as a shelter for antagonists. Here we can observe the main peculiarities of the concept "house", which is connected with its opposite "forest"; the initiation performed by our faraway ancestors included the both concepts in equal measure. The examples of the magic fairy tales we have given above witness, that historical and cultural development of each nation is definitely original and unique, nevertheless there are at the same time some common universal features that bring various nations and cultures closer together. Therefore, the

importance of the fairy tale discourse proves true by means of the doubtless importance of its consolidating function both for the single country, and for the whole world.

### Reference list

- 1. Grimm, J. Collected Fairy Tales in 2 vol. / J. Grimm, W. Grimm. Moscow: Literatura, Prestige Book, 2007. Vol. 2. 464 p.
- 2. Russian Fairy Tales by A.N. Afanasyev: in 3 vol. / ed. by L.G. Barag and N.V. Novikov. Moscow: Nauka, 1984–1985. Vol. 1. 512 p.
- Sreznevsky, I.I. The Materials for a Dictionary of the Old Russian Language: in 3 vol. / I.I. Sreznevsky. St. Petersburg: Printing house of the Imperial Academy of Sciences, 1893–1912. Vol. 1: A K. 1893. 1420 p.
- 4. The Kazakh folk fairy tales / ed. by F. Zhanuzakova. Alma-Ata: Zhazushy, 1983. 256 p.

# **CROSS-CULTURAL SPECIFICS OF COMMUNICATION**

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In studying the language of the society, it is not a good idea to focus just on the language and the process of communication. There are other structures that help us better in understanding a country more than language. One of these structures can be regarded as culture. A nation's culture flourishes by interacting with other cultures. Cultural variety opens our eyes to human rights, but cultural variety can only be recognized through discussions. Generally, language is an expression of culture and individuality of its speakers. It influences the way the speakers perceive the world. Basic understanding of cultural diversity is the key to effective cross-cultural communication.

The aim of our article is to investigate cultural differences between English and Russian conversations in some communicative situations.

**Material and methods.** While working at the article we used the following methods: analysis of various sources of information: books, publications in magazines; the compilation of the information; comparative analysis of patterns of greeting, gratitude and request in English and Russian communication.

**Results and discussion.** Translation is always a cultural process and it is nothing but a dialogue between two cultures at the level of language. It establishes a relation between the host and the target language and language is a kind of carrier of culture. We give examples of how culture influences the way people think and talk. Culture is a set of shared values that a group of people holds. Some values affect the way you think and act and, more importantly, the kind of criteria by which you judge others.

The English language doesn't have the polite/formal version of "you". This means that although in Russian, a phrase such as "I want you to teach me English" could be very polite with the correct form of "you", in English this sounds a little rude. English has many "introductory phrases" which take the position of polite "you" in patterns. So the former phrase could be translated in the following: "Oh, I'm sorry to bother you, but I was wondering if you wouldn't mind teaching me a bit English some time?" This means of making a request gives the speaker a chance to refuse. Moreover, the Russians tend to be open, sincere and honest. When they ask for something, they use the imperative, which forbidden in English. The saying "The honesty is the best policy" can't be applied to English people, as despite being polite and attentive to the speaker. They prefer to keep their distance. To express request they use interrogative sentences addressed to the speaker. For instance, instead of "Could you show me those papers, please?" we must say "Could I have a look at those papers, please?"

Verbal expression of gratitude plays an important role to keep good relationships with people and has its peculiar features. The English say "thank you" more often than others and sometimes without any reason. For instance: A: XYZ Directions, which name, please? – C: Jones. – A: Jones, thank you. Which town, please? – C: Cardiff. – A: Cardiff, thank you. Which address, please? – C: Number 28, Acacia Avenue. – A: Number 28, Acacia Avenue, thank you [1, p.95]

English people have a lot of patterns to express gratitude: thank you so much, many thanks, thank you very much indeed, I really appreciate it, etc. English speakers tend to be wordy. They respond by using two or three patterns of gratitude to pay a compliment or to praise. For instance: – That's fantastic. I really appreciate your doing that for me. Thank you very much. – Thank you very much. You were so kind to ask me and it was a beautiful meal. You outdid yourself [2, p. 78].

In Russian culture this repetition makes you look like you can't be trusted. You should say "thank you" once and then let your actions show that you mean it. Repeating the same words to emphasize them hurts one's credibility.

English patterns of greeting such as Good morning/Good afternoon/Good evening in comparison with their Russian equivalents are too formal and are typical of official style. Their informal equivalents are Morning/Afternoon/Evening followed by the name of the person: Morning, Ted/Afternoon, John/Evening, Janet. To keep the conversation going you are supposed to ask some more questions: "How are you? How are you getting on? What's new? How is life? Lovely day, isn't it?"

**Conclusion.** We see that cultural differences should never be underestimated in their importance. We can learn to speak a language, even

fluently, but if we don't understand the culture that the language grew out of, we'll never be "fluent" in that language.

#### Reference list

- 1. Ларина, Т.В. Категория вежливости в английской и русской коммуникативных культурах. М.: РУДН, 2003. 191 с.
- 2. Виссон, Л. Русские проблемы в английской речи. Слова и фразы в контексте двух культур. М.: Р.Валент, 2005. 250 с.
- 3. Wierzbicka, Anna. Cross-cultural pragmatics: the semantics of human interaction. Berlin: Monton der Gruyter, 1991. 152 p.

## THE LITERARY FAIRY-TALE "CHARLIE AND THE CHOCOLATE FACTORY" BY ROALD DAHL IN THE ENGLISH SOCIAL AND CULTURAL CONTEXT OF THE 1960s

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English Literature for children gave us a lot of writings in the genre of literary fairy-tale. The classical works of Lewis Carroll, Pamela Travers, Alan Alexander Milne attract public's attention not only in Britain but also in foreign countries, as their fairy-tales combine a usual plot and characters, taken from European literature, folklore, mythology and also social and cultural component, which was formed by the previous British generation.

The aim of this article is to analyze the fairy-tale "Charlie and the Chocolate Factory" by British writer Roald Dahl in the English social and cultural context of the 1960s.

**Material and methods.** The topicality of our research is to determine the features of postmodern stories for children by Roald Dahl and prove the influence of contemporary society and culture on the plot, main themes and characters in modern bedtime stories. Besides the works by Roald Dahl were written in the period of Postmodernism and this fact affects the methods and means, which help the author to tell us about the values of the contemporary world, upbringing of children and the <u>present-day</u> society diseases.

In our article we will use the following methods: the analysis, the comparison and the descriptive method.

**Results and discussion.** Roald Dahl is a British novelist, short story writer, poet, screenwriter, and <u>fighter pilot</u>. His books have sold more than 250 million copies worldwide.

Born in <u>Wales</u> to Norwegian parents, Dahl served in the <u>Royal Air</u> <u>Force</u> during the <u>Second World War</u>, in which he became a <u>flying ace</u> and intelligence officer, rising to the rank of acting <u>wing commander</u>. He rose to prominence in the 1940s with works for both children and adults and he became one of the world's best-selling authors. He has been referred to as «one of the greatest storytellers for children of the 20th century».

Dahl's short stories are known for their unexpected endings and his children's books for their unsentimental, macabre, often <u>darkly comic</u> mood, featuring villainous adult enemies of the child characters. His books champion the kind-hearted, and feature an underlying warm sentiment. Dahl's works for children include "James and the Giant Peach", "Charlie and the <u>Chocolate Factory</u>", "<u>Matilda</u>", "<u>The Witches</u>", "<u>Fantastic Mr. Fox</u>", "<u>The BFG</u>", "<u>The Twits</u> and <u>George's Marvelous Medicine</u>"

Returning to the analysis of the fairy-tale "Charlie and the Chocolate Factory", we would like to begin with the first impression after having read the story. The Writing doesn't coincide with our stereotypical idea upon this genre, a literary one or a folklore one. While reading it, we won't find happy children who believe in wonders or grown-ups who form good habits, plant love for learning, in other words, to bring up. Parents spoil their kids and humor fancy. As a result of it, children are like mirrors of their parents: they copy adult's habits, a way of life and behavior. For instance, the main characters Augustus Gloop, Veruca Salt, Violet Beauregarde, Mike Teavee are evil and jealous children who know nothing about help, friendship and mercifulness.

Augustus Gloop is a fat boy who loves nothing but eating. He suffers for his greed in the factory: while sucking from the chocolate river, he falls in and is sucked up by one of the super pipes. He comes out changed on the other side, as evidenced by his new thin body.

Veruca Salt is a spoiled girl. Veruca demands anything she wants. She is mean and completely self-involved, and her parents always acquiesce to her wishes. Veruca's impetuousness causes her trouble at the factory. She demands to own one of Wonka's trained squirrels, but when she marches in to claim it, it deems her a "bad nut" and sends her down the garbage chute. Mingled with garbage, she comes out changed at the end of the story.

Violet Beauregarde is an avid gum chewer. Violet's attempt to beat a gum-chewing record completely consumes her. At the factory her gum-chewing antics become her downfall when she grabs an experimental piece of gum against Mr. Wonka's advice. She eagerly chews the gum and turns into a giant blueberry.

Mike Teavee is a boy who cares only for television. The more guns and violence on a show, the more Mike likes it. At the factory he wants nothing more than to check out the chocolate television room. Once there he spies the opportunity to be on television himself. Without regard for his own safety, he engineers a filming of himself and ends up shrinking down to a couple of inches. The Oompa-Loompas stretch him out to twice his normal height in the end.

While analyzing the fairy-tale, we should understand why the author demonstrates us "new", modern life values and why the society degrades. Perhaps, the answers to these questions hide in our contemporary world, cold and prominent, where there is no place for friendship and understanding. Children are brought up to earn a place in the sun and in order to fulfill their wishes they don't pay attention to the poor and to the weak, as money talks in our society. According to our analysis we have achieved the next **results**: we have analyzed the fairy-tale "Charlie and the Chocolate Factory" by British writer Roald Dahl in the English social and cultural context of the 1960s.

**Conclusion.** In the conclusion we would like to say that the postmodernism fairy-tale differs from the fairy-tales of other epochs where children are kind, love their parents, nature and animals. The aim of modern literary story for children is to show our realistic cruel world using such literary devices as black humour and satire which are typical for black and satirical comedies not for fairy-tales. But despite these things, postmodern bedtime stories are full of mystery wonders. For example, Willy Wonka's factory where chocolate is beaten up by a waterfall and the Oompa-Loompas, fun-loving dwarves from Loompaland. In other words, Dahl's fairy-tales combine the traits of classical writing for children with their mysterious world and use some literary devices which are common for different kinds of comedies.

## INFLUENCE OF LATIN ROOTS AND WORLD-BUILDING MODELS ON NONCE-WORDS OF JOAN ROWLING'S NOVEL "HARRY POTTER AND THE SORCERER'S STONE"

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Language, as a non-lifeless thing, is constantly improving, getting bigger and beginning servicing wider and wider circles of society. One of the productive ways of active lexical vocabulary's replenishment is Neology and it's branch - Occasional Neography.

At the moment Nonce word's neography is still developing, and it's determined by the very meaning of the "nonce word", so there are plenty of opportunities in researching area, which causes the *relevance* of the paper.

**Material and methods.** The material is taken from Joanne Rowling's novel "Harry Potter and the Sorcerer's Stone"; lexicographic recourses, scientific periodic editions. While working at the article we used the following methods: continuous sampling method; method of compilation of the information; method of generalization and analysis.

**Results and discussion.** Constantly increasing interest to fantasy literature and its special language, penetration of its nonce-words into modern active English vocabulary brings attention of linguists to these lexical units.

A nonce word (also called an occasionalism) is a lexeme created for a single occasion to solve an immediate problem of communication. The term is used because such a word is created "for the nonce". All nonce words are also <u>neologisms</u>. Some nonce words have a meaning and may become an established part of the language, while others are essentially meaningless and disposable and are useful for exactly that reason, for instance in child language testing. The term *nonce word* was apparently the creation of James Murray, the influential editor of the <u>Oxford English Dictionary</u> [1].

Nonce words appear because of some factors. The main one is the try of fictional writers to find unusual stylistic devices. Nonce words are formed on the basis of productive and unproductive models, both alive and dead languages. Though, the rules of particular model may get broken, this fact does not bring down the level of expressiveness of the nonce words. Some occasional formations can later on come to the class of canonical words. It means that they are fixed in language because of the popularity of some book, but substantially they remain in the capacity of speech units. This is one of the essential characteristics of the nonce words, which were distinguished by A.G. Lykov. Among them has to be mentioned irreproducibility (unlike customary words for occasional ones every particular act of its use is a unique case of its realization). Singleness is another feature of the nonce words, which is closely related to the mentioned characteristic. According to this peculiarity occasional formation is created only for the single time of its use in speech [5, c. 79].

One of researchers, who is actively working in the area of occasional neography, is J.V. Koloiz, who made an attempt to classify Ukrainian occasional vocabulary, which was picked up from the fictional works, periodicals and colloquial speech. "The explanatory and word-building dictionary of the nonce words" gives the definitions of occasional formations and, according to the researcher, displays "their derivative base and formant; with their help the occasional derivatives are produced" [4, c. 108].

This dictionary, in our opinion, fully discloses the meaning of Ukrainian occasional words and word combinations. This work is an indisputable achievement in the area of lexicographic interpretation of occasional formations, but such kind of work has to be constantly renewed and developed, because every living language is always enriched by new words, and by the nonce words, which appear in many aspects of the human life, because they are the unique phenomena and are the characteristic feature of some literary genres. One of them is fantasy; the writers of this genre very actively develop occasional word-building.

Today, there are a lot of fantasy works in different countries, which are admired not only by native speakers, but by foreign readers all over the world, that's why the *object* of our investigation is nonce words in wellknown Joanne Rowling's novel "Harry Potter and the Sorcerer's Stone". This book is quite recent and there are enormous quantities of the material concerned. In this paper we are going to analyze few examples and try to define the impact of Latin roots in author's neologisms of the novel and find out the reason of that kind of choice.

For the best perception all spells from the book are organized in alphabetical order.

<u>Incendio</u> (lat. *incendo* - provoke; fire, inflame) - the spell for producing fire in a form of bursting out flying flame. As we can see from the translation, the Latin root mean the verb of making and the fire at the same time. That's why we can suppose that was the reason for choosing this variant from the rage of other non-Latin ones.

Locomotor Mortis (from Lat. *loco* -arrange, put; *moto* -set in motion, stir; *mortis* - death) - sticks legs together so as the victim won't be able to bend legs and step. The literal translation could be "dead motion" or "death of any movement" according to the meaning of the roots, and from this point of view it isn't clear why did the author had chosen this root. We can make hypothesis, that Joanne Rowling liked the model noun+mortis from the Latin.

<u>Petrificus Totalus</u> (from Lat. *petra* - rock, shaped stone as used in building; *facio* - make, do, cause to happen; *totalis, totus* - whole, entire) - another spell for immobilization of victim. The spell literary makes whole somebody's body freeze like a stone. It's not understandable why the writer didn't use one of the Latin roots like *montis, scopulus, crustallos,* but we can assume that this choice was made because of assonance with the word "terrific".

<u>Reparo</u> (from Lat. *reparo* - renew, repair) - the spell for reparation, that was used for the first time by Hermione Granger to repair Ron Weasley's glasses with the "Oculus" in preposition. It must be mentioned, that Lat. *oculus* is an eye, and *perspicillum* is glasses, but in modern English there is a word *ocular*. There we can see, that Joanne Rowling used the Latin's productive model of world-building of plural nous "root+us".

Wingardium Leviosa (from Eng. wing; Lat. arduum, arduus - lofty, high, hard to reach; *levis* - gentle, light, smooth; *osa* - having hated, having disliked) - the spell for smooth lifting some objects or people in the air. This is the example of using a combination of English and Latin roots and Latin derivation. The only part which can hardly be explained by the meaning is the suffix "osa", which has negative connotation.

**Conclusion.** We can make a conclusion that the influence of Latin roots and derivative models on nonce words in fantasy literature is big enough. One of probable reasons of such phenomenon is the scientific tradition of

usage Latin in medicine, pharmacy nowadays, and alchemy, astronomy in the past. Latin as one of the oldest languages can appear as the most reliable source of authority in this particular case, and author's choice could be explained by the will to insure the readers in reality of all events described. Still there is necessity of further researches, because nonce word formation is rather purely investigated area as the phenomenon, which it represents, is dynamic processes of language development.

#### Reference list:

- 1. A nonce word [Electronic resource] Mode of access: https://en.wikipedia.org/wiki/Nonce\_word – Date of access: 28.10.2016
- Rowling J.K. Harry Potter and the Philosopher's Stone / J.K. Rowling. Great Britain, Bloomsbury Publishing Plc. – 1997. – 126 c.
- Дворецкий, И.Х. Латинско-русский словарь / И.Х. Дворецкий. М.: Дрофа, 2009. – 1072 с.
- 4. Колоїз, Ж.В. Оказіоналізми в лексикографії / Ж.В.Колоїз // Філологічні студії. "Структура і семантика мовних одиниць", 2012. – Вип. 8. – С. 97–114.
- Лыков, А.Г. Современная русская лексикология (русское окказиональное слово) / А.Г. Лыков. – М.: Наука, 1976. – 119 с.

## REMINISCENCES AND QUOTATIONS OF THE RUSSIAN ORIGIN IN ULADZIMIR KARATKEVICH'S WORKS

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The phenomenon of intertextuality in the language of fiction has been studied actively since the 60s of the XXth century and it is considered as a complex references to previous texts, it means the inclusion into the work the whole texts, or some elements, in the form of quotations, allusions, reminiscences. References to other texts should be visible and understandable to the audience, otherwise, such "insertions" will not be able to perform their art function.

Using reminiscences is almost never accidental. They are an effective means of expanding the meaning of the work. "Text reminiscences ... can perform quotations (from whole fragments to separate phrases), catch words, separate, hued expression in a certain way, including personal (individual) neologisms, names of characters, name of works, names of their authors, special connotations of words and expressions, direct or indirect markers of the situation", - A. Suprun says [2, p. 17]. There are not only text reminiscences, but also other kinds of reminiscences in the works of fiction.

The purpose of the article is to reveal the variety of text and artistic allusions and quotations of the Russian origin, to determine their function in the works by Uladzimir Karatkevich. The novelty of the research is due to the opening of intertextual relations, which extremely extend understanding of the motive range, problems of specificity and artistic works, points to sources of ideas and inspiration of the author. The relevance of the study is due to the opening of intertextual relations, which extremely deepen understanding of the motive range, issues and specificity of art works, point at sources of ideas and inspiration of the author.

**Material and methods.** The material of the research is poetry and prose texts by the given writer. The main method of research is a descriptive method including observation, interpretation and classification of linguistic units; applied methods of continuous sampling and contextual analysis.

**Results and discussion.** The study reveald the following groups of allusions and quotations of the Russian origin in the work of the writer.

1. Literary reminiscences in the form of references to the names of well-known works of the author and characters. Many poetic lines by Karatkevich are full of references to the text, authors and characters of the Russian literature: Лермантаў тут. І таго не кахалі, / Хто ж тады варты гэтага больш?... І не рука, што "Мцыры" стварыла, / А пяцярня, што рубіны ўзяла, / Песціла рукі адзінай і мілай, / Доўгія косы яе распляла... ("Fantasy") [1, v. 2, p. 38]; Сумесь Бураціна з Аэлітай, / Зорка незгасальная ў акне... [1, v. 2, p. 76].

Aelita the eponymous heroine of a eponymously is the name of the fantasy novel by A.N. Tolstoy. Translated from the fictional Martian language the name means "the last time visible light of the star", it plays a role of eternal love in the text.

A number of works of the writer of the early period are written in Russian, and under the influence of classical Russian literature, in their corresponding reminiscences look very authentically:

Кажется, за один ее поцелуй я не сменял бы только родины. Не помню, у кого, кажется, у Полонского я читал... ("Rowan") [1, v. 3, p. 5]. Мне было около шестнадцати лет. Возраст Митрофанушки и Гринева. А на ребенка в шестнадцать лет никогда не обращают внимания... ("Rowan") [1, v. 3, p. 6]. Mitrofan is the main character of the comedy "Minor" by Denis Fonvizin, Grinyov is the character of the novel "The Captain's Daughter" by Alexander Pushkin. These two images have much in common, they are both teenagers, both had bad teachers, who, in fact, did not pay any attention to their students. The character of novel "Rowan" feels lonely as well.

Some contexts demonstrate a broad literary erudition of the author and the reader requires no less awareness. Пабываў у наваколлі Разані... гаварыў з людзьмі на паромах, са старымі вартаўнікамі сенажацяў, з бабамі, якія гаманілі на спявучай мове **Ясеніна**... Наведаў ён у Салотчы і дом гравёра Пажаласціна, які **Паўстоўскі** апісаў у "Тэлеграме" і "Мяшчорскай старане". ...У доме жыў пісьменнік Фраерман, аўтар "Дзікага сабакі Дзінга" ("Purple Shield") [1, v. 3, p. 369–370]. Гаворыць так праўдзіва, што хоць ты яго на неба жыўцом бяры, а ўчынкі – дрэнь і гніль… Мімікрыя! "Вова прыстасаваўся". Словы якія, а сам, як крылоўскі манах, у хаце яйкі на свечцы пячэ… ("Spring Dozing in the Snow") [1, v. 4, p. 226]. In the fable of I.A. Krylov "Slander" the character Bramin in the fast day bake an egg on the candles secretly.

Karatkevich can transform definitely the literary quotations according to the artistic task. So, mock-ironic use modified line poem of Esenin "I'm tired of home life...": Пойду в аспирантуру я, // Чтобы иметь излишек пищи, // И друг любимый на меня // Наточит нож за голенише ("Spring Dozing in the Snow") [1, v. 4, p. 238] (in original: Пойду по белым кудрям дня // Искать убогое жилище. // И друг любимый на меня // Наточит нож за голенище). Sometimes there is a kind of literary quotation-game. He думайце, аднак, што мы ў той час толькі і рабілі, што крычалі: "Не магу маўчаць!" і пыталі мужыка: "Чаго бяжыш, мужычок?" і "Ты проснешься ль, исполненный сил?" ("Wild Hunt of King Stach") [1, v. 4, p. 321] (title of a pamphlet by Leo Tolstoy and the line from a poem by Nekrasov "Specualatons Near the Main Entrance"). - Ідзіце вы са сваім анархізмам ведаеце куды?.. Во ён у мяне дзе сядзіць... На Беларусь! В глушь! В Capamos! ("Legend of the Poor Devil and Satan Lawyers") [1, v. 5, p. 85] (words of Famusov to Sofia from Griboyedov's comedy "Woe from Wit").

2. Musical reminiscence. Karatkevich's creative work is characterized by a kind of "intercultural" intertextuality as literary works resonate with the famous works of music or other art forms. Але затое так яскрава бачу: // Пакой, Чайкоўскі хмуры на сцяне... ("Winter Elegy") [1, v. 1, p. 102]; Что стоишь, качаясь, // Тонкая рябина, // Голову склонила // До самого тына? ("Rowan") [1, v. 3, p. 8]. Беспорядно и бесчувственно бьются о стены холодные воины-звуки Скрябина и Рахманинова... ("Hands") [1, v. 3, p. 45]. "Ты меня не любишь, не жалеешь" (the words of the song of the same poem of Esenin) ("Spring Dozing in the Snow") [1, v. 4, p. 237].

3. Theatrical reminiscences we can see, for example, in the following contexts. Ён даводзіць мяне Станіслаўскім і Хемінгуэем, // Выклікаючы ціхую ярасць у сэрцы маім... [1, v. 2, p. 47]. – Як па-твойму, "Браняносец Пацёмкін" новае слова ў кіно ці не? [1, v. 5, p. 98]. – А... якой вы думкі пра "Баладу аб салдаце" Чухрая? – падазрона пытае ён [1, v. 5, p. 121]. І, галоўнае, Верка, калі ён сказаў ёй, што скончыў курсы і працуе паштальёнам апошні месяц, згадзілася пайсці з ім пасля ў кіно, – глядзелі другую серыю "Вайны і міра"... [1, v. 3, p. 281].

4. Precedential anthroponyms. The names of actual historical figures allow to outline a specific chronological period and cause relatively stable representation of the reader. – Хрыстом-Богам, якога, вядома, няма,

прашу вас, браткі. Паразмаўляйце асабіста з Уладзімірам Ільічом. Рабіце што хочаце, але каб зброя была ("Olive and the Sword") [1, v. 3, p. 210]. А для вас гульба яшчэ не скончана. І давядзецца яшчэ Ваську Шуйскаму перад камарынскімі хлопамі... носам рэпу капаць ("Letters not Never Late") [1, v. 3, p. 284]. ...Вельмі страшна было тут жыць. Кажуць, у Івана Грознага некалькі жонак атруцілі ("Little Ballerina") [1, v. 3, p. 339].

**Conclusion.** The degree of intertextuality in poetry and prose by Uladzimir Karatkevich is very high. The author knew perfectly Russian culture and in its connection with Belarusians creatively reworked its spiritual heritage, willingly used a variety of references to famous cultural realities, seeking to join the Belarusian literature to the best examples of the human spirit, cultural heritage and artistic talent of the Russian people. The use of artistic works reminiscences, allusions and quotations allowed the author to provide new information based on the previous verbal and textual experience, express the object evaluation, have an effect on the reader effectively.

#### Reference list:

- 1. Караткевіч, У.С. Збор твораў. У 25 т. Т. 1–5 / У.С. Караткевіч. Мінск: Маст. літ., 2012–2013.
- 2. Супрун, А.Е. Текстовые реминисценции как языковое явление / А.Е. Супрун // Вопросы языкознания. 1995. № 6. С. 17–29.

## NATIONAL-CULTURAL PECULIARITY OF ONOMATOPOEIC VERBS IN THE BELARUSIAN AND GERMAN LANGUAGES

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One of the most important sensory perceptible elements of the objective reality is a sound that is why onomatopoeic words have a big presence in languages around the world and are used on a daily basis to imitate or suggest the source of a sound. The study of onomatopoeia within the scope of the nomination theory and phonosemantics is topical at the present stage, because there are some still unsolved problems in the field of the defining inner word form, the genetic base of the majority onomatopoeic verbs and their functioning in language.

In this article we define onomatopoeia, according to S.V. Voronin, as imitation of the source of a sound by means of particular language. The universal linguistic category of onomatopoeia includes words, which mean sounds uttering by animals (*bark*, *tweet*, *buzz*), people (*cough*, *laugh*, *sneezing*) or other sounds and noises of nature (*gurgling*, *rustling*) and

different mechanisms (*knock*, *squeak*). Onomatopoeias tend to vary across different nationalities and cultures, and each country therefore has its own collection of onomatopoeic expressions. Although animal noises are of common occurrences of onomatopoeia, and people of different cultures hear particular sounds similarly, they are often expressed through the use of different consonant strings in different languages due to the specific articulatory features of native speakers and the rules and patterns of the language's phonology.

Our research considers German and Belarusian verbs of sound, which reproduce sounds of animals, with the purpose to investigate and compare their semantic development, functioning and national-cultural peculiarity.

**Material and methods.** Lexemes with the integral seme 'animal phonation' served as the material, selected with the help of the continuous access method from relevant dictionaries [1, 2]. In the course of the investigation, also such methods were used as definition analysis, contextual analysis, comparative and descriptive methods.

**Results and discussion.** According to our study of all the verbs of sound in German and Belarusian, we conclude, that the imitation of calls and noises of animals, birds and insects is one of the numerous lexico-semantic groups in this languages. The article represents only some of the verbs and their peculiarities. In the course of the study, it was revealed that there is a difference between the semantic volume and combining ability of onomatopoeic verbs in the investigated languages. Thus, we find in Belarusian the verbs imitating calls of such birds as lapwing (*kigikat', kigat'*), stork (*klekatat', lyaskatat', shchakatat'*), titmouse (*tin'kat'*), nightingale (*t'ehkat'*), heron (*bugat'*), snipe (myaketat'), blackcock (*chufyrkat', chufkat'*), crake (*drat'*). The analogs of them are not revealed in German, but there the other specific verbs reproducing animal sounds exist, for example: *keckern* (about fox), *quäken* (about hare), quorren (about woodcock), *knappen* (about wood grouse), *schirpen* (about horse), etc.

It is worth noting that the majority of the distinctive Belarusian verbs reproduce sounds of waterfowls or marsh birds (e.g., lapwing, stork, heron, snipe and crake), what evidences the influence of extralinguistic factors on their origin. As a result, they can be characterized as national colored [3, p. 252]. The semantics of some equivalent words differs too, e.g.:

- bel. *blyayat'* 'to bleat' represents sounds producing by sheep, while germ. *blöken, bölken* 'to bleat' are using for reproducing sounds of sheep, cows or bulls;

- bel. *kvakat'*, *kvokat'* 'to croak' describe phonation of frogs, while germ. *quaken, quarren* 'to croak' can be said about frogs or ducks.

The verbs *mykat'*, *mychat'* 'to moo' in Belarusian mean 'to utter longdrawn-out sounds *mu-mu*', to roar said about cows or bulls [4, p. 43]. In German a number of verbs corresponds to: *muhen, brummen, blöken, brüllen,*  while the verbs *muhen* and *brummen* can be used as onomatopoeia only to the denotation *cow*. It is worth to notice that the verb *brummen* functions not only in meaning 'sounds of cows or bulls', but also of sheep.

The investigated onomatopoeic words are using not only in the direct sense, but in the figurative meaning as well, which associates with human activity and speech adding affective evaluation to the situation and triggering positive or negative feelings. So, onomatopoeic verbs in Belarusian and German can differ in their figurative senses too, for example, germ. *krächzen* 'to caw' possesses three meanings: 1. 'to caw'; 2. 'to speak hoarsely'; 3. 'to groan' [5]. The figurative sense 'to predict trouble' is showed by the verb – *unken* 'to croak' (about toads) as opposed to bel. *karkat'* 'to caw' (about crows): germ. *lass diese Unkenrufe!* (informal) 'Stop your cawing!' [5].

As to phonetic motivation of the verbs reproducing calls of animals, so it is worth to consider a certain connection between the real sounding of the object and its reproduction in languages due to the presence of some vowels or consonants in the phonetic form of the onomatopoeic word, which possess specific associative-semantic effect. M. Grammon said that sounds of living language using in onomatopoeic units imitate natural noises and sounds only approximately [6, p. 136–137]. Despite a common imitative nature, onomatopoeic verbs for the same sound in different languages are influenced or restricted by the different phonological systems leading to discrepancies between them. Nevertheless, they share some universal characteristics too. Therefore, the noise that cats make is an example of shared understanding between onomatopoeias. In German the sound is described as '*miauen*', '*mauzen*', while in Belarusian it is '*myaukat*'. They all use the nasal sound [m], so the words are easily recognizable to people of different nationalities and cultures who use different languages. There are some more examples:

- bel. *blyayat'* vs. germ. *blöken*, *bölken* ('to bleat') [*bl'*];
- bel. *karkat'* vs. germ. *krähen, krachzen* ('to caw') [kr];
- bel. *pishchat'* vs. germ. *piepen* ('to peep') [p'i];
- bel. *zumkat'* vs. germ. *summen* ('to buzz') [zm], etc.

**Conclusion.** Thus, onomatopoeia is a distinct universal to languages class of words that reveals some similarities due to the common imitative origin and word borrowing, which is especially true for European languages. Nevertheless, the same onomatopoeic units in the investigated languages characterize not only by structural and phonetic peculiarities, but by semantic and functional as well, what determines the cultural identity.

#### Reference list:

- 1. Duden, Universal Dictionary of German / Duden. 6<sup>th</sup> ed. Mannheim : Dudenverlag, 2007. 2016 p.
- 2. Atrahovich, K.K. Lexicon of Belarusian [Text]: I V / K.K. Atrahovich. Minsk : Belarusian Soviet Encyclopedia named after P. Brouka, 1977 1984.

- Raago, P.A. Comparative analysis of Belarusian and Slovakian verbs with the denotative seme 'animal' (lexico-semantic and syntagmatic aspects) / P.A. Raago // "Language Literature Culture" : materials of the VI<sup>th</sup> international scientific conference. Part II. Minsk : RIVSH, 2011. P. 252 237.
- Alieeva, C.A. Functional-semantic analysis of onomatopoea in the modern Russian language : dissertation. ... candidate of philological sciences : 10.02.01 / C.A. Alieeva. – Makhachkala, 1997. – 158 p.
- 5. Moskalskaya, O.I. The German-Russian dictionary [Text] : I III / O.I. Moskalskaya. M. : "Russian language Media", 2004.
- 6. Voronin, S.V. Phonosemantic ideas in foreign linguistics / S.V. Voronin. L. : LGU, 1990. 199 p.

## THE FEATURES OF FUNCTIONING OF KOLORATIV IN MODERN COSMETOLOGY

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Among the main functions of language, linguists distinguish communicative function, consisting in the transmission of information and the provision of a specific impact on the destination as well as cognitive function where language serves as an instrument of knowledge.

The purpose of this work is to consider the specificity of the combination of information content and the impact on the companion in the field of cosmetology.

The topic of the research work is considered relevant, since the study of the functioning of language units contributes to the popularization of literate speech, correct and appropriate use of lexemes of certain semantic group.

In modern linguistics kolorativ is the subject of study in such researches as "Aspects of systematization of adjectives – colour-name in the Russian language" by E.V.Krapivnik, "The concept of colour in the cognitivefunctional-stylistic aspect" by K.D.Dmitrievoy, "Colour idioms as a fragment of idiomatic picture of the world of the Russian and German languages" by Y.V.Zolnikovoy and others.

**Material and methods.** To achieve the goal we analyzed kolorativ used in catalogs of such popular cosmetic companies as ORIFLAME, AVON, FABERLIC, MARY KAY, a survey of college students was conducted, findings were calculated by mathematical analysis.

**Results and discussion.** The colour symbolism is of ancient origin. The psychology of colour originates from the 18th century. The emergence of this trend was associated with the name of the great German poet Johann Wolfgang von Goethe and his scientific work "Theory of Colours".

The variety of kolorativ is used in the cosmetic industry. Different sources give different interpretation of the concept. In general, kolorativ

means one of the varieties of lexical universals, outlined quite clearly in the language, it is a group of adjectives denoting colour. "Koloronim" (Latin color "color" + Greek onym «name».) And "occasionalism-chromaton" (from the Greek the chroma "color" + onym «name.") – it is an attempt of linguists to create and implement a particular linguistic term.

Kolorativ is divided into:

- actually kolorativ (red, blue, coral);
- additional colour characteristics (light, dark)

Historically, colour was used as a simple connecting means between the objects, then as the symbol and in recent years as the iconic character. Some scientists believe that there are three primary colours: red, blue, green. The main functions of colour include:

- communicative, specifying the relationship between the elements and objects of nature;
- symbolic, pointing to a phenomenon, object, or entity;
- expressive, conveying a certain feeling and provoking certain emotions [1]. Studying such cosmetics companies as ORIFLAME, AVON, FABERLIC, MARY KAY, we paid attention to the fact that cosmetics of ORIFLAME (Sweden) and FABERLIC (Russia) has similar names.

We have analyzed more than 600 kolorativ indicating the name of the colour of lipsticks, nail polishes, shadows. Among them there are some that represent one word (elegant (red), wave (green), debut (beige)) -23%; phrases (air kiss (pink), cream silk (brown), emerald foliage (green)) -77%. The use of kolorativ-phrases in the cosmetic industry is intended primarily to perform the advertising function – the function of attracting people's attention. In order this function also has an informative orientation, 61% phrases includes lexemes that indicate the tone (classic red, blue star, pink ballerina), but 39% of taken kolorativ hasn't got such lexemes (sweet dreams (pink), starry sky (grey), dark luxury (brown)).

In order to test the effectiveness of the functioning of this group of lexemes in the modern Russian language, we conducted a survey of 146 college students aged from 15 to 19 years (mainly women). The task of the interviewed people was to determine the names of colours of nail polishes, shadows and lipsticks with the help of the proposed pictures and names. Analyzing the results of the survey, we noticed that the guys called colour or shades of colours (purple, red, dark blue, light pink), and the girls tried to give a detailed description of the colour (dark lilac, March leaf, red rose). In addition, many of the respondents suggested the names, which are similar in style to the proposed ones, though those names were not identical (emerald passionate, French kiss, cold soft, green smoky eyes, wine angels). In the first task the coincidence between the answers of the respondents, and the variants proposed by the cosmetologists were not found. 17% of 100% of the respondents found it difficult to choose the kolorativ. In the second task the

students were offered a list of colour names of different cosmetic products, it was necessary to specify the color shade, hiding behind a bright nomination. This task was simple: 87% of answers coincided with the real situation (cold steel - gray, languid plum – purple, marshmallow cream – beige). This is due to the fact that there are semes in such lexemes as "steel", "plum", "cream", which allow to build the associative row with a specific colour: gray, purple, beige. There were not respondents who could not answer.

**Conclusion.** The main function of kolorativ in cosmetic industry is to attract the interest of consumers to the word itself. Unusual names arouse curiosity, attract attention not with the exclusiveness of colour of the designated object as its verbal form. Goods of the same type - shadows, lipstick, nail polish - can be represented by a specific range of colours, which are differentiated by means of the specific kolorativ. Thus, we can talk about the special informative function of lexemes, indicating the name of the colour. In addition, the colour-names have the function of impact: whatever the choice of goods in the catalog is inevitably based on a text component not on the good quality of printing.

### Reference list:

1. Tanabaeva, A.M. Vocabulary and phraseology as a source of ethno-cultural information [Text]: / A.M. Tanabaeva, F. Sh. Orazgalieva. – Karaganda: Publishing house of the University, 2001. – 115 p.

## LINGUISTIC MEANS AND TECHNIQUES OF THE IMPLEMENTATION OF THE COMIC ELEMENT IN THE NOVEL BY J.K. JEROME "THREE MEN IN A BOAT (TO SAY NOTHING OF THE DOG)"

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In order to identify the means and techniques of the implementation of the comic element in a particular work of literature it's necessary to resort to the stylistic analysis of its contents. I.V. Arnold in his book "The style of modern English" writes about the following types of stylistics – phonetic stylistics, grammatical stylistics, which is in its turn subdivided into morphological and syntactic levels, and lexical stylistics [1, p. 14].

The aim of our research is to identify the means and methods of the implementation of the comic element in the novel by J.K. Jerome "Three men in a boat (to say nothing of the dog)".

**Material and methods.** The material of our study is the authentic novel by J.K. Jerome "Three men in a boat (to say nothing of the dog)". During our research we have come to the conclusion that the novel by J.K. Jerome

"Three men in a boat (to say nothing of the dog)" is filled with a great number of stylistic means, the use of which is aimed at the implementation of the comic element in the novel and which manifest themselves at the phonetic, morphological, syntactic and lexical levels of the language.

**Results and discussion.** At the phonetic level, we have identified various graphical means that are used to reproduce the original pronunciation of the characters. Such graphical means include emphatic italics, capital font, spelling of words in syllables, repetition of the same letter in a word. The graphical means are stylistically requisite to convey the emphasis that in oral speech is made with the help of intonation, accent, tone of voice, pauses, lengthening or doubling of certain sounds. For example,

•Upon which we would get nervous and confused, and not know how to get the boat out of the way, and the people in the launch would crowd round and instruct us: "Pull your right – you, you idiot! back with your left. No, not you – the other one – leave the lines alone, can't you – now, both together. **NOT that** way. Oh, you – !" [2, p. 139]

At the morphological level we have found the use of obsolete parts of speech.

•*My friend said he would, and the shopman, <u>thereupon</u>, took him through the shop, and up the staircase of the house [2, p. 56]. In the given example an obsolete adverb "thereupon" is used.* 

At the level of word formation we have singled out a great number of occasional or nonce words that are used for the implementation of the comic element in the novel.

• "You are an <u>untruther</u>," I replied, getting roused; "I do not want to see tombs – not your tombs. Why should I? [2, p. 71] In the given example the nonce word "untruther" is used.

At the syntactic level we have found the following stylistic techniques used to implement the comic element in the novel: inversion, detachment, parallel constructions, various types of repetition, enumeration, antithesis, rhetorical questions. We have concluded that such stylistic techniques as detachment, repetition, enumeration are the most frequent.

• It is a curious fact, but nobody ever is sea-sick – <u>on land</u> [2, p. 16]. (detachment)

•With me, it was my liver that was <u>out of order</u>. I knew it was my liver that was <u>out of order</u>, because I had just been reading a patent liver-pill circular, in which were detailed the various symptoms by which a man could tell when his liver was <u>out of order</u>. I had them all [2, p. 9]. (repetition)

•*Rainwater is the chief article of diet at supper. The bread is two-thirds rainwater, the beefsteak-pie is exceedingly rich in it, and the jam, and the butter, and the salt, and the coffee have all combined with it to make soup [2, p. 22]. (enumeration)* 

Finally, at the lexical level we have found numerous figurative means, or tropes, that should be regarded as the lexical stylistic techniques used for the implementation of the comic element in the novel. (namely, metaphor, personification, metonymy, synecdoche, irony, pun, epithet, oxymoron, paradox, simile, hyperbole, periphrases). Such stylistic techniques as personification, simile, periphrases and hyperbole are most frequently used in the novel.

•And they seemed hurt at what they evidently regarded as a mean and ungrateful act on the part of <u>the boat</u>. We found the truant for them half a mile further down, held by some rushes, and we brought it back to them. I bet they did not give that boat another chance for a week [2, p. 88]. (personification)

•*«life-and-death struggle»* [2, p. 23], *«oh-what-a-wicked-world-this-is-and-how-I-wish-I-could-do-something-to-make-it-better-and-nobler expression»* [2, p. 24], *«particularly knowing eye»* [2, p. 49], *«superhuman* 

effort» [2, p. 98]. (epithets)

•You start on Monday with the idea implanted in your bosom that you are going to enjoy yourself. You wave an airy adieu to the boys on shore, light your biggest pipe, and swagger about the deck as if you were Captain Cook, Sir Francis Drake, and Christopher Columbus all rolled into one [2, p. 14]. (simile)

*It is <u>the witch's kitchen</u>* [about the town] *from which go forth those* <u>demons of the river</u> – steam-launches [2, p. 127]. (periphrases)

•Where <u>the thousands upon thousands</u> of bad sailors that swarm in every ship hide themselves when they are on land is a mystery [2, p. 17]. (hyperbole)

Furthermore, during our research we have identified a great number of lexical units with a high stylistic tone (including archaisms, bookish words, foreign words), for example, "ostentation" [2, p. 30], "obdurate" [2, p. 70], "morceaux" [2, p. 79]), and units with a low stylistic tone (colloquial words, slang units, vulgarisms), for example, "baccy" [2, p. 7], "seedy" [2, p. 9], "idiot" [2, p. 21], which greatly contributes to the implementation of the comic element in the novel.

**Conclusion.** Thus, we have concluded that the implementation of the comic element in the novel by J.K. Jerome "Three men in a boat (to say nothing of the dog)" is achieved through the use of phonetic, morphological, syntactic and lexical linguistic means and techniques.

### Reference list:

- 1. Arnold, I.V. Stylistics of modern English / I.V. Arnold. M.: Prosvechenie, 1990. 301 p.
- 2. Jerome, J.K. Three men in a boat (to say nothing of the dog) and Three Men on the Bummel / J.K. Jerome. London: Penguin Books, 1999. 392 p.

## THE ROLE OF THE PROVERBS AND SAYINGS IN THE ENGLISH LANGUAGE

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"A good expression is always to the point" – speaks an old English proverb. Every culture has a collection of wise sayings that offer advice about how to live your life, and the English language isn't an exeption. Historically poverbs have been considered the flowers of popular wit and the treasures of popular wisdom.

The aim of our work is to classify the English proverbs, denote their functions and role in the process of study.

**Material and methods.** The material of the research work is the English proverbs and sayings and their role in the English language. During the investigation different methods were used: descriptive, comparative, analysis.

**Results and discussion.** Proverbs belong to the traditional verbal folklore genres and the wisdom of proverbs has been guidance for people worldwide in their social interaction throughout the ages.

A proverb is a short, generally known sentence of the folk which contains wisdom, truth, morals, and traditional views in a metaphorical, fixed and memorizable form and which is handed down from generation to generation.

This definition may serve as basis to briefly explain the history, form and function of the proverb. First, proverbs are used from generation to generation; they are traditional. Many proverbs are old and have their origins in classical antiquity and medieval times, and several proverbs are biblical. Yet, it is not only old proverbs that are used and handed down.

Proverbs change with time and culture. Some old proverbs are not in use any longer because they reflect a culture that no longer exists, e.g. Let the cobbler stick to his last, which has vanished more or less, because the profession of the cobbler nowadays is rare. However, new proverbs that reflect the contemporary society are created instead, e.g. Garbage in, garbage out, a proverb created due to our computerised time. Old proverbs are also used as so called anti-proverbs today, i.e. "parodied, twisted, or fractured proverbs that reveal humorous or satirical speech play with traditional proverbial wisdom". One example is – Nobody is perfect, which as an antiproverb is changed to – No body is perfect.

A proverb is usually recognised by the fixed, often short form and is therefore quite easy to memorise. Many proverbs also contain metaphors. Proverbs often have multiple meanings and are therefore dependent on context and should be analysed in whatever context they are found. Other proverbial features concern style. Arora has defined certain stylistic features that are applicable on proverbs. These include phonic markers such as alliteration, rhyme and meter, e.g. Practice makes perfect; A little pot is soon hot, semantic markers such as parallelism, irony, paradox, e.g. Easy come, easy go; The longest way around is the shortest way home, and lexical markers like archaic words [1, p. 221].

According to the origin and the sphere of usage we can define the following types of proverbs:

- Universal proverbs - on comparing proverbs of culturally unrelated parts of the world, one finds several ones having not only the same basic idea but the form of expression, ie the wording is also identical or very similar. These are mainly simple expressions of simple observations or simple ethical concepts, but not all expressions of simple observations became proverbs in every language.

- Regional proverbs - in culturally related regions - on the pattern of loan-words - many loan-proverbs appear beside the indigenous ones. A considerable part of them can be traced back to the classical literature of the region's past, in Europe the Greco-Roman classics, and in the Far East to the Sanskrit and Korean classics.

- Local Proverbs - in a cultural region often internal differences appear, the classics are not equally regarded as a source of proverbs in every language. Geographical vicinity gives also rise to another set of common local proverbs. These considerations are illustrated in several European and Far-Eastern languages, as English and Korean.

Proverbs are widely used in teaching, for example during Speech Practice classes. Work with proverbs and sayings at the lessons not only helps to diversify educational process and to make its brighter and interesting. Moreover it helps to solve a number of very important educational problems: proverbs in the classroom can improve students' learning experiences, their language skills, and their understanding of themselves and the world. This happens because:

- 1) proverbs provide an opportunity for students to be knowledgeable experts as well as learners;
- 2) proverbs provide an opportunity for students to learn about each other and their shared values;
- 3) proverbs provide an opportunity for students to gain insight as they discuss their experiences and work out their understanding of proverb meanings;
- 4) proverbs provide an opportunity for students to use their home culture as a stepping stone into school culture;
- 5) proverbs provide an opportunity to improve thinking and writing as students both provide and receive information [1, p.137].

In order to know if the proverbs are popular and wide-spread among the students of our group, I have conducted the survey. I've asked my group-mates: 1.What is proverb? 2. Do you use the proverbs in your everyday speech? 3. What proverbs do you use?

Having learnt all the results, we can conclude that 90% of the students can explain the meaning of proverbs. Only about 25% use them in their everyday spoken speech. The most popular and wide-spread are: "Health is better than wealth", "An apple a day keeps the doctor away", "A friend in need is a friend indeed", "All work and no play makes Jack a dull boy", "All's well that ends well", "A man is known by the company he keeps", "As fit as a fiddle" and so on.

**Conclusion.** So we can come to conclusion that not many students use the proverbs in their everyday life. If to analyse the usage of the proverbs generally, the most common are connected with the topics: "Health" and "Friendship". But the majority of students marked that they like, when their teachers use the proverbs at the lessons, as it activates their critical thinking and speech.

To conclude, I can say that a great way to improve your understanding of the English culture, people and history is to study English proverbs and sayings. By memorizing them, you will not only learn some common English sayings, you will also help your brain to become better at forming good English sentences.

### Reference list:

- 1. Arora, Shirley L., The perception of proverbiality. New York, 1994. –221p.
- 2. Bazerman, Analyzing the Multidimensionality of Texts in Education. New York, 2006. 137 p.

## WAYS OF TRANSLATING ENGLISH PARTICIPIAL CONSTRUCTIONS IN FICTION INTO RUSSIAN

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The English language is rich in constructions and it is not always easy to translate them correctly into Russian language. When it comes to literature here it is more complicated. Because the right translation is not of first importance when it concerns literature. There is no need for exact translation. There is a necessity to convey the author's idea using the author's point of view, his humor, his style of writing but with the help of another language.

The aim of our research is to analyze the ways of translation of English participial constructions in fiction using a novel by Iris Murdoch "The Sandcastle" as an example. The problem is that the syntactic functions of Russian and English participles are different, what makes the translation process more complicated.

**Material and methods**. Methods of the research: descriptive, analytical. In our research we will use participial constructions from a novel by Iris Murdoch "The Sandcastle" [1]. And the translation made by Irina Trudolybova [3]. Our analysis is based on the classification of translation transformations developed by Komissarov V.N. He distinguishes lexical, grammatical and lexico-grammatical transformations [2Murdoch, Iris. Sandcastle. / Iris Murdoch. Sandcastle. – Vintage Classics, 2003. – 318 p..

**Results obtained.** Due to the fact that the syntactic functions of Russian and English participles are different, a translator sometimes resorts to transformations. These changes are caused by lexical and grammatical differences between the languages. Let's consider the examples.

The tall neo-Gothic windows on either side of it were of plain glass, and outside in a <u>tree birds could be seen tumbling about and chirruping</u>.

('По обе стороны алтаря уходили вверх узкие неоготические окна, застекленные обычным стеклом, и поэтому <u>видно было, как</u> снаружи, среди веток, <u>с чириканьем порхают птички</u>').

Here we have the subjective participial construction. The subject *birds* is translated into Russian as a noun *nmuųĸu*, which stands for the subject in the subordinate clause. And the participle *chirruping* is translated as a verb in the personal form *nopxaюm* which stands for the predicate in this sentence. To translate the participle *tumbling* grammatical transformation is used – substitution. The participle is substituted with the noun with a preposition *c чириканьем*. The verb *could be seen* in the Passive Voice is translated as impersonal sentence. The clauses are linked with the help of the conjunction *как*.

*He cast a belligerent look round the room, <u>his lips already trembling</u> <u>with scorn.</u>* 

('Он воинственно поглядывал на собравшихся, <u>а на губах его уже</u> дрожало презрение').

Absolute participial construction is translated with the help of the transformation of the sentence into a complex sentence. Thereby in Russian variant there are two subjects. The noun *npespenue* is personified. To translate the participle *trembling* such grammatical transformation as substitution is used. The participle is substituted by the verb in the personal form  $\partial po \mathcal{RAD}$ , which performs the function of the predicate in relation to the personified subject. It's done to emphasize the strength of the scorn.

Then Mor recognized the man. It was the gipsylooking woodcutter whom they had seen in the wood, playing with the cards.

('Мор узнал этого человека. Похожий на цыгана <u>незнакомец</u>из леса, <u>игравший в карты</u> сам с собой').

To translate the objective participial construction I. V. Trudolybova uses nominal sentence with the Russian participial construction. Since the time expressed by the participle *playing* corresponds with the verb *had seen*, to translate it in this sentence participle *uzpaвuuŭ* in the past tense is used.

In the background, beyond School House, a few <u>private cars could be</u> <u>seen drawn up on</u> the grass, <u>their doors wide open</u>, <u>being loaded with</u> suitcases, tennis rackets, cricket bats, and other paraphernalia.

('В стороне <u>стояли</u> несколько частных <u>автомобилей</u> <u>с открытыми</u> <u>дверцами, в них укладывали</u> чемоданы, теннисные ракетки, крикетные биты и прочий багаж').

Subjective participial construction in this sentence is translated with the help of grammatical transformation - substitution. The participle *drawn up* is substituted with a verb in its personal form *стояли*, which is the predicate in the Russian sentence. To translate the participle *being loaded* the passive meaning retains (*в них укладывали*). Absolute participial construction *their doors wide open* in the function of attendant circumstances I. V. Trudolybova translates with the help of the Russian adverbial modifier of manner *c открытыми дверцами*.

He found himself wondering if she could really paint.

('Интересно, есть ли у нее талант живописца?').

Here we can see that in translation I. V. Trudolybova transforms the sentence completely and omits the objective participial construction replacing it with the parenthetical word *интересно* to achieve the desired artistic effect.

She watched him with lips parted.

('Мисс Картер сосредоточенно слушала Бладуарда').

To translate this sentence I. V. Trudolybova uses lexical transformation – modulation. Modulation is replacing a unit in source language with a target language unit the meaning of which can be logically deduced from it and which is just another way of referring to the same object or an aspect of the same situation. In such cases the substitute often has a cause-and-effect relationship with the original [2]. Thereby absolute participial construction *with lips parted* is translated with the help of the Russian adverbial modifier of manner *cocpedomoченнo* and the verb in its personal form *слушала*.

The easel was still in place and Demoyte was sitting in the sun near the window with his back turned towards the door, in an attitude of repose.

('Мольберт стоял на прежнем месте. Освещенный солнцем, Демойт сидел <u>спиной к двери</u> недалеко от окна').

Absolute participial construction in the function of attendant circumstances is translated here with the help of the nouns and a preposition in the function of adverbial modifier of manner *спиной*  $\kappa$  *двери*.

Thereby we can see that I. V. Trudolybova uses mostly grammatical transformations in order to translate English participial constructions from

the novel "Sandcastle" by Irish Murdoch into the Russian language. She uses such transformations as substitution of parts of speech, fragmentation, integration of sentences. Rarely she uses lexical and lexico-grammatical transformations such as modulation. Also in her translation we could see the omission of participial constructions.

**Conclusion.** Based on our analysis we can make the following conclusion. To make a worthy translation of a literary work a translator can use any type of transformation. There is no regulation. According to the results of our research we have made sure that common tendencies of translation are not universal. The primary aim of a translator when it concerns literature is not to translate but to recreate the artistic effect of the original text and to achieve the desired artistic and aesthetic impact on a reader, despite a variety of obstacles that a translator has to overcome.

Reference list:

- 1. Murdoch, Iris. Sandcastle. / Iris Murdoch. Sandcastle. Vintage Classics, 2003. 318 p.
- 2. Комиссаров, В. Н. Теория перевода. / В.Н. Комиссаров. М.: Высшая школа, 1990. 253 с.
- 3. Мердок, Айрис. Замок на песке. / Перевод Трудолюбовой И.В. М.: Эксмо, 2008. 400 с.

# PSYCHOLOGICAL AND PEDAGOGICAL DETERMINANTS OF THE ESTABLISHMENT AND FUNCTIONING OF THE EDUCATIONAL SPHERE

## ACADEMIC MOBILITY AS A WAY OF EXPANDING THE BOUNDARIES OF EDUCATION

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Academic mobility is extremely popular today. This method of sharing knowledge enables young people to share their knowledge and experience. This process allows you to expand the boundaries of educational space. However, such process has both positive and fraught with difficulties.

The aim of the study is to examine the concept of academic mobility, identifying positive and negative aspects of this phenomenon, to study statistics data and making a conclusion based on this information.

**Material and methods.** To perform the study were used the following methods: comparative analysis of the positive and negative sides academic mobility; study and analysis of statistic data of academic mobility in the Republic of Belarus; the generalization of research.

**Results and discussion.** Academic mobility is a movement of knowledge, that implies not only the exchange of students, but also teachers. Thus, not only the students have the opportunity to improve and enrich their knowledge, but also those who give this knowledge to students and pupils. However, academic mobility is not uniquely effects on our lives.

Let's see a positive side of academic mobility:

1. Improving knowledge of a foreign language by practice.

Of course, to learn rules and words is not difficult work, but to apply their knowledge in a conversation in a foreign language can create some difficulties for you. Thus, communicating with native speakers or with the same foreign nationals, you will overcome these difficulties faster than relying only on textbooks.

2. The opportunity to live in another country for a period of study.

There are a lot of programs that give an opportunity to combine study and living for some time. In this way you become nor a simple visitor, but a resident of country, where you study.

3. The development of intercultural relationships.

As a foreign student, anyway, in a new group you will be a new person, and perhaps for some time "black sheep". However, to become closer to the people, we establish communication with them. Try to learn more about the history of the country, cultural traditions. As a result, we acquire new friends. And even after arrival to the motherland, nothing prevents us to keep in touch with our foreign friends.

4. Acquaintance with the education system of another country.

Academic mobility allows to meet and to know about the system of education in other countries, that enables every mobile student personally judge about the advantages and disadvantages of education in their own country, and perhaps borrow some ideas or solutions to improve their education.

5. Advantage in the labor market.

Today, in employment it is important not only to have a document that confirm the completion of a higher education institution, but also the availability of certificates of completion of a training course, language skills and work experience. If you have trained abroad and in a foreign language, then your chances of becoming an employee of an organization significantly increases [1].

Along with the above benefits of academic mobility, there are also some problems.

1. Financing.

According to the information on the site Eurostudent 2015 [2], about a quarter of students are received financial support under the state help to programs of mobility. All the provisions relating to the financing of mobile students should be registered in the documents of educational institutions of the country whose citizen is a student [4, p. 25]. However, in general all foreign internships and other educational travelling are looked by students self and, accordingly, the issue of financing also solve by themself.

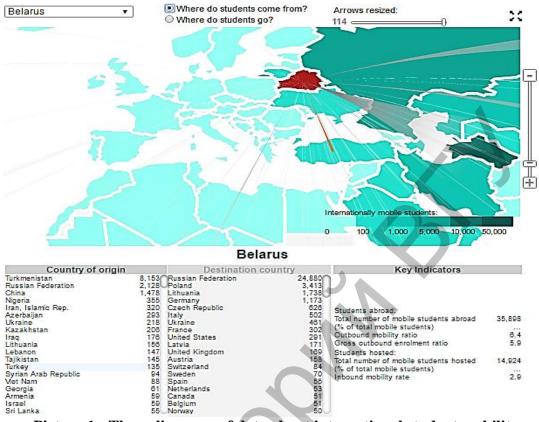
2. Language barrier.

Academic mobility is very effective for improving the knowledge of foreign languages. But, if your foreign language skills are insufficient, training in a foreign language can cause some problems. Do not forget about the presence of different dialects, such as the English language, that in the United Kingdom and the English language in the United States. We cannot say that these are two completely different languages, but there are significant differences between them.

Academic mobility is a chance, that will provide a variety of additional opportunities in education and to improve the knowledge of a foreign language.

As shown on the online map of data about international student mobility (picture 1) [3], the majority of students come to the Republic of Belarus from Tajikistan and the Russian Federation in order to obtain the formation of. And according to these statistics, the Belarusian students go to study in Russia and Poland. These statistics allow us to judge that the Republic of Belarus is opened to international students, because the list of countries where students do not come to us small. It is worth noting that Belarusian

students extend the boundaries of their education, by study not only in neighbor countries.



Picture 1 - The online map of data about international student mobility

**Conclusion.** Academic mobility allows us to overcome cultural, ethnic, linguistic and educational barriers. Today, this phenomenon cannot be called rare, but the frequency is not great. So, why we don't start to create and implement plans on the development of academic mobility increasingly today? Pushing the boundaries of this phenomenon, we are expanding not only our own horizons, but also blurs the boundaries between the different countries.

#### Reference list:

- 1. International mobility [electronic resource]. Access mode: http://www.eltech.ru/ru/mezhdunarodnaya-deyatelnost/mezhdunarodnayaakademicheskaya-mobilnost - Date of access: 23.10.2016.
- 2. Eurostudent Database [electronic resource]. Access mode: http://database.eurostudent.eu/- Date of access: 23.10.2016.
- 3. Global flow of tertiary-level students [electronic resource]. Access mode: http://www.uis.unesco.org/Education/Pages/international-student-flowviz.aspx?SPSLanguage=EN/- Date of access: 23.10.2016.

## ROLE OF TEMPERAMENT FOR FORMATION OF VOCATIONAL INTENTIONS SENIOR SCHOOL STUDENTS

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The article analyzes the results of study of the influence of the type of temperament on vocational choice of students in 10-11<sup>th</sup> grades. It is revealed that a certain type of temperament correspond to certain vocational intentions.

Vocational intentions – is a conscious attitude to certain type of professional activity, including knowledge of the chosen profession, the desire to choose a profession and to receive an appropriate education.

The formation of vocational intentions of students is one of the major components of the process of psycho-pedagogical support of professional self-determination.

Questions of vocational intentions of students and their formation in the context of their professional self-determination presented in the works of A.E. Golomshtok, L.A. Owaisi, E.A. Klimov, V.A. Polyakov, S.N. Chistyakova, L.V. Blagonadezdins, T.A. Buyanova, M.I. Gubanova, I.V. Zagorets, O.A. Simonini, L.A. Kolosova, N.I. Morozova, considering conceptual terms, conditions, and educational technology prepare students for life and professional self-determination and psychological problems associated with psychophysical peculiarities of students.

Such features include the temperament of school students. Analysis of scientific literature shows that the study of the influence of temperament on the formation of vocational preferences is considered mainly for the persons performing professional activities or receive vocational education. Scientific papers devoted to the study of the influence of temperament and vocational intentions of the senior school students practically do not occur. However, temperament is a stable natural characteristic and plays the important role at the stage of formation of certain interests of a particular profession already at school age [1].

The aim of the present research is to investigate the influence between temperament of the senior school students and their vocational preferences, which were revealed by the questionnaire survey on national program "Profprognoz". The studies were conducted with the students for two years starting from 10<sup>th</sup> grade. For the study of vocational intentions students were polled about their professional plans after graduation: in what institution of higher, secondary specialized or vocational education and what specialty they would like to continue learning. For the analysis of the survey results the students selected occupations were grouped into three major profiles according by the typology of E.A. Klimov [2]: technical (Man-Tech), humanitarian (Person-Person), creative (the Man-Art Image), the sample was

assembled from the data of those students who twice in 10<sup>th</sup> and 11<sup>th</sup> classes chose the specialty of the same profile.

**Material and methods.** At the first stage in the experiment took part 2027 students of 10<sup>th</sup> classes of schools, gymnasiums and lyceums of the Gomel region, of which 1876 students in 11<sup>th</sup> grade have confirmed your professional choice in the second stage. For identify such types of temperament of students as sanguine, choleric, phlegmatic, melancholy was used the test questionnaire by G. Eysenck.

**Results and discussion.** The results show what type of temperament prevails when selecting students with specialties of one of the profiles.

Among students who have chosen a profession of a technical profile was dominated the sanguine personality type (34% of all students) of temperament, students with choleric (39%) and phlegmatic (27%) type of temperament prefer majoring in the humanities and creative programs – students with melancholic type (49%) of temperament.

The obtained results suggest the following conclusions:

1. In the sample of participants is not observed a clear predominance of a particular type of temperament, the majority of pupils have a choleric (30%) and sanguine temperament (30%), slightly fewer in this group have the phlegmatic (20%) and melancholic (20%) temperament, which gives a basis for comparison of experimental results for different specialties.

2. Vocational preferences of senior school students associated with a specific type of their temperament, with psychophysical peculiarities of students.

**Conclusions.** The obtained results can be used at the stage of formation of vocational preferences in vocational guidance, career counseling, practice management of development of senior school student with taking into account individual psychological characteristics.

#### Reference list:

- 1. Rusalov V.M. Theoretical problems of constructing the special theory of human personality // Psychological magazine. 1986. T. 7. № 4. P. 23 25.
- Klimov E.A. Psychology of professional self-determination of youth / E.A. Klimov. Rostov-on-Don: Phoenix, 2006. – 283 p.

## USING THE METHOD OF CASE STUDIES IN BUSINESS ENGLISH TEACHING

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Innovative methods of English language teaching imply a wide usage of case studies. It is a relatively new type of task-based activities for business English students. The article reviews the basic pedagogical aspects of using

case studies when teaching business English. The emphasis is on the main principles and techniques of case studies in language teaching using the case study method in class.

The main aim of the article is to discuss the advantages of the case study method as an innovative tool of making the teaching process more effective and student-centered.

The effectiveness of teaching business English to students depends on proper teaching materials. They are to be aimed at improving the process of language acquisition and sharpening the productive skills of speaking and writing which are more difficult to obtain as opposed to the receptive skills of reading and listening. Case studies were first used to teach law students. In the mid-70s of the 20th century this method was introduced in business schools to give future managers a chance to demonstrate their analytical and managerial skills. Nowadays case studies are widely used as a researching tool in different fields of knowledge where the analysis of a real problem is on the front burner in teaching.

Business English is not taught as a discipline separated from the students' real life; but it is integrated into their academic curriculum. Business English combines professional field of study and English language teaching. In this respect cases provide valuable teaching materials that motivate business English learners by giving them the opportunity to apply what they learn in their English classes to their main subject matter. Students can present their own view point, explain its advantages and suggest an effective plan of actions. Understanding that in a Business English course they fulfill the tasks relevant for their future professional communication, students are more motivated to learn.

**Material and methods.** The case study method presents a problematic real-life situation that needs to be solved. Business case studies usually begin with the background information about a company that can be given in the form of tables, graphs and so on. Then the problem is stated and students have to think of the best solution to this problem using the active vocabulary they have already acquired on the Business English lessons. It is necessary to note that students should be motivated to interpret, analyze and suggest various solutions rather than give easy and elementary answers.

The structure of a case study may vary but the key element is always the same: a problem in a company. To solve the business problem it's necessary to follow several stages: (1) studying the case, (2) defining the problem, (3) identifying priorities and putting forward hypotheses (4) suggesting alternative solutions, (5) working out a plan of actions.

The first stage includes reading, the other ones train speaking skills – learners express their view points, analyze, criticize and negotiate. As a rule students work in teams so that the can discuss different aspects of the same case study. Each team competes which other teams trying to work out the

best solution to the business problem. Students get motivated in doing case studies when they feel themselves the decision-makers. They are the managers and the teacher is only an observer and facilitator.

It is worth mentioning that cases also give a good opportunity to develop writing skills. The written work results from the case study interaction. When the discussion is over and the solution to the problem is offered, all students are asked to use the information in a written form. It may be a report, a letter, a memo or a mind map – any kind of business writing which is appropriate in this situation. A teacher should provide all the necessary instructions on the style and layout. Besides all case study classes need to be debriefed to include the language and the skills of written communication.

In order to prove the effectiveness of the Case Study method it was applied in the group of the second year students when studying the topic "Companies".

A one and a half hour class time was divided into three half hour parts:

*Meeting* (30 minutes) - teams (team A and team B) met to discuss their part of the case study.

*Presentation* (15 minutes per group) - team A presented their findings to the other group and vice versa.

*Discussion* (30 minutes) - all students united to discuss the findings and make suggestions.

Meeting (30 minutes)

Students were divided into two teams (team A and team B) to discuss their part of the case study. A chairperson was chosen to lead the meeting and an agenda was composed. Students discussed actively and offered solutions, which they then represented graphically on the blackboard.

Presentation (15 minutes per group)

Team A and team B shared their findings with each other which took 15 minutes for each group including questions. Students were asked to take detailed notes and clarify the issues their group did not deal with by asking questions and repeating.

Discussion (30 minutes)

During discussion both parts compared and contrasted the various findings and suggestions made. Everyone was encouraged to participate and a consensus was reached on the main points of the presentation. This further elaboration of the items on the agenda facilitated the writing of the detailed minutes, which were asked to be prepared as homework.

**Results and discussion.**The case study method is a motivating teaching material that can be widely applied in teaching business English to students. Case study is a useful task-based activity which represents the student centered approach.

Case studies offer numerous advantages and opportunities:

•to practice language macro-skills: reading, speaking and listening,

•to develop the productive language skills,

•to develop the student's critical thinking and reflective learning

•to practice managerial skills such as holding a meeting, negotiating a contract, giving a presentation,

•to encourage collaborative learning and team-working skills

•to develop communicative competence,

•to analyze and discuss graphs, tables and other quantitative data,

•to train intercultural skills

•to add the elements of business culture and business ethics to a language course

**Conclusions.** The case study method is an effective means to stimulate the students' motivation as it helps to build up curiosity in the text inviting the learner to do further research on the case. Therefore, the learning process is intensified. The case study approach is particularly useful for Business English classes as the use of subject-specific cases creates a link between the students' study programmes and their language training. Learners train the language skills and at the same time develop their analytical, managerial and interpersonal skills important in business communication.

### Reference list:

- 1. Allison, J. & Powell, M. (2005). In Company Case studies. Oxford, England: Macmillan.
- 2. Burges, S. & Head, K. 2005. How to Teach for Exams. Harlow: Longman.
- 4. Frendo, E. 2007. How to teach business English. Harlow: Longman.
- 5. Language Policy Division. 2006. Experts' Report: Poland. Council of Europe, Strasbourg.
- 6. Cotton, D., Falvey, D. & Kent, S. (2010). Intermediate Market Leader. Business English Course Book. (third edition). Harlow, England: Pearson Longman.
- 7. Rodgers, D. (2006). Business Communications. International Case Studies in English. (sixth edition). Cambridge, England: Cambridge University Press.
- 8. Willis, D. & Willis, J. (2007). Doing Task-Based Teaching. Oxford, England: Oxford University Press.

# COMPARATIVE ANALYSIS OF COGNITIVE FAILURES AT PUPILS IN EDUCATIONAL AND SPORT ACTIVITIES

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An interest to failures of attention, memory and motor function appeared on the modern stage development of cognitive psychology (V.M. Alachverdov 2000; D.N. Volkov, 2007; A.Yu. Ahafonov, 2012; R.A. Shanov; D.J. Furley, 2011; D. Memmert, 2007, 2009; M.S. Reede, 2010) [1; 2]. The results of the scientific researches (D.E. Broadbent, P.F. Cooper, P. FibGerald, K.R. Parkes, J. Reason, D.A. Norman) indicate that problem of failures actions is very relevant at the present time [3; 4].

Practical need exists in the study this phenomenon in different fields of the life activity. Besides, reasons of rise cognitive failures, age and sociocultural peculiar properties haven't been studied (theoretical scientific interest).

The cognitive science has the facts are about the study of the types cognitive failures (J. Reason, D.A. Norman, D.N. Volkov, I.I. Kondrateva, M.N. Charkova); about the mechanism which is control the reiteration of failures (the consequence of unconscious negative choice) (V.M. Alachverdov); also about the cognitive phenomenon of blindness on inattention (M.B. Kuvaldina) and about influence of the stressful factors in working process on meet of the cognitive failures (perception, attention, memory, motor function) in everyday life (D.E. Broadbent et al.) [1; 2; 3; 4].

Sports university students, laundry workers, management group and student nurses acted as respondents of aforesaid researches. The category of the secondary school pupils and of the olympic reserve sports college pupils hasn't been explored.

The purpose our research is execution of the comparative analysis of cognitive failures everyday life at pupils in educational and sport processes for rise of efficiency and safety activities.

**Material and methods.** Respondents of this research are the secondary school pupils (N = 100, Vitebsk) and the olympic reserve sport college pupils-athletes (N = 100, Vitebsk) in age 15–17 years old. The Cognitive Failures Questionnaire (D.E. Broadbent et al.) has been used for the rate of the frequency of the cognitive failures everyday life at pupils.

**Results and discussion.** The statistically significant differences have been revealed in the manifestation of cognitive failures in pupils-athletes and pupils-non-athletes (p = 0,031). Specifically, failures of attention (p = 0,021) and failures of motor function (p = 0,068) more often meet at pupils-athletes than at pupils-non-athletes (figure 1).

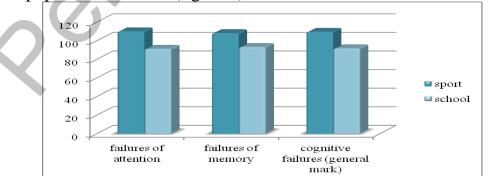


Figure 1 – The comparative analysis of cognitive failures at pupils in educational and sport processes

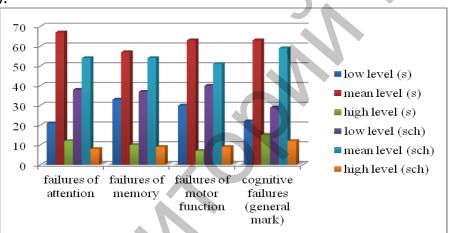
*The failures of attention* are manifested as the tendency of fail to notice of people, things or recommit to make certain actions, for example, reread the book.

At athlete have a tendency to do things or to ignore their execution because of the violation of cognitive activity control. It manifests itself in difficulties in decision-making and disorganization that indicates the manifestation of *motor function's failures*.

Significant differences in the occurrence of attention's failures have not been identified.

The occurrence of cognitive failures (attention, memory and motor function) at pupils-athletes and pupils-non-athletes marked at the mean level.

This indicates about the insignificant violation of the mechanism regulation of cognitive processes (control) and about low level of development of mnemonic processes, of voluntary attention and self-control (figure 2).



Comments: (s) – sport, (sch) – school Figure 2 – The cognitive failures at pupils-athletes and pupils-non-athletes

The comparative analysis of the cognitive failures by sex also shows significant differences.

It is established that male athletes more often commit failures associated with memory (p = 0,059), attention (p = 0,087) and motor function (p = 0,024).

These failures are associated with partial violation of the regulation of attention, inability to concentrate it on the target object, the violation of behavioral control, an inability of the subject to increase the level of their activity. Significant differences were found only at pupils involved in sport.

**Conclusion.** Thus, the comparative analysis of the cognitive failures at accordance with the nature of the activity has been performed in this research.

These results are partially consistent with the findings by D.E. Broadbent et al. (1982) about the effect of stress environment on the occurrence of the cognitive failures in everyday life.

The sports process includes the heightened, extreme, stressful, constantly changing situations which require the situation assessment and the choice of action in a limited time. It influences the partial on the frequency of making of the cognitive failures.

#### Reference list:

- 1 Alachverdov, V.M. Conscience as paradox / V.M. Alachverdov. SPb.: DNK, 2000. 528 p.
- 2 Volkov, D.N. Corrective of cognitive lapses at athletes high qualification / D.N. Volkov (Eds.) // Sport Psychology. 2013. № 1 (28). P. 32-38.
- 3 Broadbent, D.E. The Cognitive Failures Questionnaire (CFQ) and its correlates / D.E. Broadbent, P.F. Cooper, P. FibGerald, K.R. Parkes // British Journal of Clinical Psychology. – 1982. – № 21. – P. 1–16.
- 4 Reason, J. Lapses of attention everyday life / J. Reason, R. Parasuraman, R. Davies (Eds.) / Varieties of Attention. Orlando: Academic Press, 1984. – P. 515–549.

## THE PECULIARITIES OF FOREIGN LANGUAGE NON-STANDARD LESSONS AS A COMMUNICATIVE FORM OF EDUCATION

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Today more and more attention is focused on the human person with a highly developed culture of thinking and intellectual capacities. It is very important to bring up a new generation with a good knowledge of science, general culture, abilities to think independently and flexibly to solve life and professional problems. To put into practice these tasks a teacher should introduce innovative teaching techniques into the educational process. And one of the challenging examples of these techniques is non-traditional forms of lessons.

**Material and methods.** When writing this article, the following research methods were used: literature review on the subject and its critical analysis (works of I.A. Zimnyaya, J.M. Kolker, E.A. Maslyko, E.I. Passov, E.S. Polat and et al.), the observation of the teaching process in Vitebsk gymnasiums  $N_{P}$  1 and 2, the experimental verification of the effectiveness of non-standard lessons during our teaching practice at Vitebsk secondary school  $N_{P}$  44.

**Results and discussion.** The rational lesson organization must meet some requirements that allow the teacher to increase both the coefficient of students' useful activity and the quality of their training. Taken together, these requirements orient teachers to the most optimal structure of the lesson.

Based on the target aspect of the lesson, they are:

1) all other aims of the lesson must meet its target, because it is the leading one determining others;

2) comprehensive training always has a developing and educational character that contributes to the learning process;

3) training should be related to the level of students' knowledge and must foster their development;

4) the teacher should take into account individual abilities of each student;

5) when formulating the aims of the lesson, the concepts of "practical aim" and "educational aim" should be specified. Moreover, such factors as the connection between previous and subsequent lessons, the place of the lesson in the school schedule and age characteristics of students must be taken into account.

The content of the lesson must strictly correspond to its aims. The teacher should determine and formulate them in the form of specific tasks of training, development and education.

A non-standard lesson is a specific form of non-traditional classes at which students' speech activity is carried out in situations that are close to real ones. Such lessons are characterized by a distinct communicative orientation, a situational, student-oriented approach to teaching, presence of all kinds of speech activity [1, p. 8–44].

To solve pedagogical communicative tasks during the non-standard lesson the foreign language teacher must have the following communicative skills: a) to induce students to use a foreign language orally and in writing on their own; b) to create and use communicative situations to stimulate students' speech activity; c) to motivate students' speech using communicative tasks that require specific individual solutions; 4) to be flexible enough for every student.

Non-standard foreign language lessons effectively realize the technology of the communicative method. They ensure such criteria of the communicative learning as: motivation, communication, activity, cooperation, meaningfulness, personal understanding, problematic character, purposefulness, communicative value of phrases, pragmatics of speech, its expressiveness and emotionality, richness in content [2].

The most effective forms of non-standard lessons are a lesson-seminar, a lesson-lecture, a press conference, a mutually learning lesson, a project, a lesson-competition, an excursion, a brainstorm, a business game, role-playing, a discussion, a competition, a performance, a lesson-simulation.

Regardless of the type of the non-standard lesson, the following stages should be observed: a preparatory stage, realization of the lesson, summing-up.

**Conclusion.** Non-standard foreign language lessons have a number of advantages over traditional classes: a) the amount of teaching material and the depth of its understanding is higher; b) students' cognitive activity and creative independence are increased; c) the disciplinary difficulties caused by the lack of motivation learning are reduced ; d) the nature of relationship

between students is changing, the class become more united and concerted; e) students acquire such important social skills as responsibility, the ability to regulate their conduct taking into account the position of other people, empathy, etc.; f) students develop skills of their individual work; g) the teacher is able to individualize training taking into account children's inclinations and interests, their level of training and the rate of work; h) such lessons raise students' interest in learning a foreign language and as a result they motivate their better teaching material mastering.

### Reference list:

- Passov, E.I. The communicative method of foreign language speaking teaching / E.I. Passov. – M.: Education, 1991. – 223 p.
- Konysheva, A.V. Non-traditional foreign language lesson / A.V. Konysheva // Narodnaya asveta, 2002. – № 2. – P. 26–32.

# SOCIOCULTURAL REHABILITATION OF DISABLED PEOPLE

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There are about half a million people with disabilities in our country. They amount to 6,6% of adults and 1,5% of children [1]. Social rehabilitation aiming at re-establishment of damaged or lost social relations due to health problems is the necessary condition of appropriate daily living activities of these people. However, the desire to unlock the creative potential is much stronger among them than among healthy people.

The aim of the study – to look into educational opportunities of sociocultural rehabilitation of disabled people.

**Material and methods.** The study was carried out at SI «Regional Center for Social Services of Zheleznodorozny district Vitebsk». Total number of respondents – 30 disabled persons aged 18 to 31 years.

To fulfill the goal of the study the following methods were used: terminological, questionnaire survey, methods of mathematical statistics, examination and generalization of psychological and pedagogical expertise.

**Results and discussion.** The problems of people with disabilities are the object of study of sociology, medicine, philosophy, psychology, and ethics. Social stratification is presented in the writings of the classics: E. Durkheim, R. Merton, R. Park, P. Sorokin. Issues of social, professional, sociocultural rehabilitation of the disabled are described in the works of modern Russian scientists: N.V. Vedeneevoy, O.G. Zlobinoy, I.A. Dvoryanchikovoy, E.V. Tolkachevoy.

At the beginning we'd like to say that the rehabilitation is a system of medical, psychological, educational, social and economic measures aimed at

elimination or even a full compensation of physical dysfunctions caused by health problems with constant impairment of body functions.

In its turn sociocultural rehabilitation is a set of activities and process, which aims to help these groups to achieve and maintain an optimal level of participation in social relationships, the required level of cultural competence and satisfaction of cultural and recreational needs, providing them with opportunities for positive change by expanding the scope of their independent lifestyle and their full integration into the social environment.

In our study we give consideration to leisure-time rehabilitation as a part of the sociocultural rehabilitation of the disabled. It's not just the inclusion of a disabled person in the leisure environment, but also the development of his qualities, which allow indulging in various forms of entertainment. Diverse cultural and recreational activities (informational, educational, developmental, etc.) aimed at developing communication skills, gaining experience in social interaction, mastering new skills, expanding the circle of contacts constitute the basis of such rehabilitation process.

32 disabled persons with special needs aged 18 to 31 years attend SI «Regional Center for Social Service of Zheleznodorozny district Vitebsk». There are 2379 persons with disabilities in total registered in the administration of Zheleznodorozny district on 01.01.2016. They are organized in hobby groups of arts and crafts, gain household and practical skills in a specially constructed kitchen, expand their information space through computer training. Hobby groups are represented by:

- decorative and applied arts «Lyanok» (weaving);

- «Gorod masterov» (floristics);

-«Volshebnyi klubochek» (knitting, embroidery);

- social rehabilitation «Hoziajushka», «Domovodstvo»;

- computer literacy «Electronic».

A lot of work is carried out in the organization of leisure activities: holidays, games, meetings with interesting people, excursions, visits to the cinema, theatre, participation in fairs etc.

While conducting the survey, our main objective was not only to study the problems of the disabled, but also understand their leisure preferences. Having studied the data about who gave major support to the disabled after acquired disability we can note, that 60% of the respondents were helped by the family in the primary adaptation after acquiring a disability, 34% - bysocial service workers, 6% - by friends and neighbours. These people see their reason for living in the «leisure pursuit or a hobby» (60%), 30% of the respondents – in «relatives» and 10% - in «work». 43% of the respondents have a lack of the help and support, 67% - of personal interaction and friends, 50%; – of leisure activities,10% - of an interesting job, 16% - ofmoney. Having analysed the questions about pastimes, we found out that 65% of the respondents have a positive attitude to sports (however, they do not participate, but only follow and watch); 20% – indifferent; 15% – have an active lifestyle. When asked about hobbies and interests the respondents gave the following answers: 28% do not have any hobbies or interests, 72% of the disabled people have a hobby. As a rule, it is collecting, knitting, beading, but the list also includes music, reading, outings, leading a healthy lifestyle, watching TV, chatting with friends. The next question in the survey was about excursions, going to the theatre and museums. To the question: «How often do you go on excursions, to the theatre, museums?» 75% of the respondents gave the answer «do not go at all» (we can assume that it's due to absence of barrier-free environment necessary for normal life); 10% – visit once every few months and 15% - try to visit cultural and educational institutions once a month. The main form of leisure for the disabled is having rest in a family setting -66%; watching TV -20%; reading -10%; listening to the radio and music -4%. However, the most preferable are the active forms of recreation, such as outings -35%; going to the theatre, exhibitions -40%; chatting with friends - 50%; going to the cinema 20%; going on excursions - 53%. 70% of the respondents found activities of Regional Center for Social Service in the organization of leisure activities to be satisfactory and 30% gave the answer «excellent».

The final survey question was: «Would you like to have more institutions of cultural and entertainment character in our town that could be freely visited by the disabled?». The overwhelming majority answered positively (90%), the remaining 10% have not thought about it.

**Conclusion.** Thus, from our study it can be concluded that the majority of people have radical life changes after acquiring disability, especially in the personal and professional spheres. This indicates that these people need special support and all-round rehabilitation, including social and cultural.

The main objective of the rehabilitation activities – introduction to the cultural, spiritual and moral values, to a healthy lifestyle, balanced development on the basis of inclusion in the world of art and culture. In the focus of the approaches is the idea of a free and harmonious development of a person, that concentrates on the spiritual and moral values and is committed to continuous self-determination, self-improvement, as well as the recognition of the important role of art and culture in the formation and development of a person.

### Reference list:

1. National Statistical Committee of the Republic of Belarus [Electronic source] URL: http://www.belstat.gov.by/bitrix/urlrewrite.php (Accessed date: 23.10.2016).

## **INTERNET ADDICTION AS A FORM OF ADDICTIVE BEHAVIOR**

## A. Mieloch

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Widespread involvement of huge amounts of people into the Internet web, compelled the leading scientist to search for ways of prevention of this type of addictive behaviour. Addictive, or obsessive, behaviour is connected with peoples desire to escape real life by distorting their consciousness. Nowadays the following problem is the most current for the growing generation. However finding effective ways of socio-pedagogical prevention requires the detailed study of theoretically-methodological approaches to the following issue.

The aim of the research – theoretically investigate the problem of addictive behaviour in growing generation in the aspect of internet addiction.

**Material and methods.** The basis for the study was selected: the Educational Establishment «secondary school  $N_{2}$  28 of Vitebsk». The total number of respondents consisted of 30 adolescents in this study.

To fulfill the goal of the study the following methods were used: terminological, questionnaire survey, methods of mathematical statistics, examination and generalization of psychological and pedagogical expertise.

**Results and discussion.** Addictive behaviour is one of the types of deviant (deflecting) behaviour, which forms the urge to escape reality through artificial change of one's psychological condition with the help of certain substances or constant fixation of attention on specific activities in order to develop and maintain intense emotions [1, p.11].

The researches differentiate the main forms: chemical addiction (smoking, toxicomania, drug addiction, alcohol addiction); eating disorders (anorexia, bulimia); compulsive gambling (computer addition, hazardous games); religious-destructive behaviour (religious fanaticism, involvement in a sect).

In order to separate addictive behaviour from any other behavioural deviations I. Danilina distinguished six criteria of addictive behaviour:

-avoiding of previously meaningful events and actions, as a result of addictive behaviour;

-disruption of previous relations and connections, change of significant environment;

-aggressive attitude and misunderstanding from people significant to the addicted person;

-reticence or irritability when his behaviour gets criticized by surrounding people;

-feeling guilty or anxious about its own addiction;

-unsuccessful attempts to reduce addictive behaviour [3,p.663].

Various aspects of addictive behaviour were presented in the works of foreign (Kimberly Young, GordonAlanMarlatt, Ivan Goldberg) and domestic researchers (A.O. Bukhanovskiy, N.V. Dmitrieyva, S.A. Kulakov, C.P. Korolenko, V.D. Mendelevich, V.V. Shabalina, A.E. Zhichkina). Nowadays many authors differently classify addiction, however within the framework of non-chemical (technological) addiction A.U. Yegorovdistinguishes Internet-addiction.

Despite the active study of the problem, scientist still haven't reached the unified treatment of the term «Internet addiction». The terms «dependence on the Internet» or «internet addiction» are used, but also «excessive or pathological usage of the Internet».

Psychologist Dr. Ivan Goldberg, who introduced the term Internet addiction in 1995, treats in the following way: «Internet addiction is an obsessive desire to connect to the Internet and unhealthy inability to disconnect at the right moment, the compulsive need for usage of the Internet is accompanied by social maladjustment and appearance of psychological symptoms» [2, p.38].

According to Kimberley Young, the author of «Caught in the Net» and «Tangled in the Web», internet addiction is a real illness, which requires clinical treatment. Already in 1995 Kimberley Young opened the fist support center for Internet addicts. Later, from 1997 to 1999, were created research and advisory-psychotherapeuticcenters and services. Among those institutions is a clinic for Internet addicts as a part of a hospital, consulting center for students «Getting into the network» In the University in Maryland. In 1998–1999 the first monographs dealing with the issue of Internet addiction were published.

C. P. Korolenko, the problem of Internet addiction begins when the urge to escape reality, connected to the change of the psychological condition, begins to dominate conciseness, becoming the main idea, affecting life, leading to disconnection from the reality.

The term «Internet addiction» covered quiet a wide range of different behavioral patterns, specifically: computer dependence, this is obsession to work with the computer (games, programming or other ways of computer usage); informational overload, «electrical tramping», that is durable (several hours) browsing the WWW without any specific goal; the source of pleasure is the very fact of being on the Web, multimedia forms of encouragement and stimulation of website users or learning new through such browsing; compulsive usage of the Internet, that is pathological affection to gambling, online auctions and stocks or online shopping; addiction to «cyber-relationships», that is from social connections: communication (chats, group games and teleconferences) and while communication establishing friendly relations or «flirt»; depending on «cyber-sex», that is on pornographic websites on the Internet, on discussing sexual topics on chats and special «adult» teleconferences.

The main types of Internet addiction among teenagers are gambling addiction from computer and online games and addiction to virtual communication and virtual acquaintance. The following are the reasons believed to cause Internet addiction: thirst for adventure, child neglect, arguments in the family, emotionally-psychological peer violence, low or high self-esteem. The ability to creat alternative online characters, depending on the mood and desires of the user, creates opportunity to escape real world and it's emotional problems (for instance stress, anxiety), or from simple life difficulties (problems in school, troubles within the family).

**Conclusion.** The key characteristic for an addictive personality is obsession. For their self-protection addicts use the mechanism, in psychology known as «thinking on request», under which thinking content depends on emotions. Such life setting is aimed at immediate achieving of pleasure at any cost. Addiction becomes the universal method of escaping real life, when instead of harmonious interactions with all aspects of reality, activation occurs only in one direction.

Most claim that internet-addiction is a symptom of deep personal problems. The individual avoids reality through complete immersion into a virtual reality, psychological sate. Instead of dealing with problems on the spot, he chooses virtual displacement into a perfect world.

#### Reference list:

- 1. Korolenko, C.P. Addiction problems in borderline and antisocial identity disorders / C.P. Korolenko, T.A. Shpiks // Addictilogy. -2005. 9-13 p.
- 2. Mukhambetova, K.A. The influence of informational devices on the personality: internet addiction/ K.A. Mukhambetova // Vestnik of Omsk University. 2009. 37–40 p.
- 3. Repina, M.A. The problem of internet addiction among teenagers/ M.A. Repina, A.F. Federov // Young scientist. 2014. 662–664 p.

# FEATURES OF FORMATION OF CULTURAL COMPETENCE OF PERSONALITY

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When determining the place of modern man in the information field, we can't but address the problem of the relationship of the individual and culture. We can trace this relationship through the construct of "cultural competence". The category of culture is one of the major ones in philosophy and culturology, but the notion of cultural competence has become a pressing issue in modern psychology as well.

One of the trends of modern culture is globalization, which is characterized by the convergence of different types of culture. This process is not mechanical. It will be harmonious unless it won't involve slowdown of the cultural progress.

We meet the similar point of view in V.A. Yanchuk's publications'. He defines Inculturation as persons learning to traditions and norms of behaviour in concrete culture, gradual development by the person of skills, manners, norms of behaviour which are characteristic for certain type of culture, for the certain historical period. This long and gradual development by the person of ways, norms, practical recommendations in an everyday life, process of giving of the personality of the general cultural competence in relation to standards of that society in which she lives [1, p. 64].

Modern psychology attempts to solve the question of the possibility of influence on the formation and assimilation of the content of one's own culture. This is made possible through an authentic possession of the concept of cultural competence. An individual acquires cultural competence both spontaneously and during the process of learning, which will involve the enculturation of the individual, i.e., learning proper cultural competence. In principle, the enculturation of the individual in the process of education and the general education generates him as a "product" of the culture of the community; it lays into his consciousness assessment and behavioral patterns and skills, cultural patterns in the already ready to "use" form and brings him up as a " consumer of the culture, trained to obtain, use and interpret the cultural patterns in line with the rules, regulations, traditions of the culture of the community, which essentially means the formation of the socially adequate identity suitable to the actual needs of the very community [2, p. 323].

We meet the similar point of view in V.A. Yanchuk's publications'. He defines Inculturation as persons learning to traditions and norms of behaviour in concrete culture, gradual development by the person of skills, manners, norms of behaviour which are characteristic for certain type of culture, for the certain historical period. This long and gradual development by the person of ways, norms, practical recommendations in an everyday life, process of giving of the personality of the general cultural competence in relation to standards of that society in which she lives [3].

Thus, we can say that cultural competence is defined by certain time stage cultural paradigm and corresponds with concrete culture social requirements in which personality is developing. However, because the cultural openness has increased, ability to interchange by cultural forms, experience, has appeared technical possibility of formation not only regional, but also planetary communicative-activity systems, first in narrowly specialized branches of knowledge and practice, and then and in popular areas of sociocultural life (global communication, mass media, advertising, distance learning, multifunctional information systems as the Internet, etc.) [2, p. 96]. Constituent elements of cultural competence set certain social expectations of life and cultural demands on themselves and others, which are the most objective expression of the historically possible (at this point in time) cultural competence of the individual.

Material and methods. Methods related to the theoretical level of scientific knowledge: analysis of scientific and methodological literature on the problem under study. Such scientific methods as analysis, synthesis, induction, deduction.

**Results and discussion.** Results from theoretical analysis suggests that, the total content of cultural competence can be configured as spontaneously and purposefully. According to E. Orlova, culture can be differentiated into functional blocks, where one can trace broadcasting channels of socially relevant information, which distinguish every day and specialized culture. She allocates a block of culture of social communication, accumulation, storage and transmission of information in which the broadcasting between channels occurs through everyday and specialized culture. Specialized culture includes a system of secondary and higher education, special education, preschool, clubs and hobby groups and other institutions of socialization and enculturation; everyday culture is a system of home upbringing, everyday social interaction and everyday traditions, customs and manners.

In continuation of this theory, we can consider two ways of formation of cultural competence - implicit and explicit. According to E. Orlova, the implicit way involves an intuitive understanding of subjective human experiences and is connected with everyday level of culture. The explicit way implies a connection with the specialized level and has a clear structure, which facilitates the possibility of transferring the culture to other people. The implicit way provides an effective intuitive basis on which an explicit model of cultural competence can be built [4, p. 273].

The leading role is played by the educational process, by means of which we can purposefully influence the formation of cultural competence and obtain the desired result. However, this process is not predetermined, logical, linear, but more asynchronous and irregular. The most important thing in the organization of this process and its maintenance is the ability to understand the paradigm as a whole, rather than focus on individual components of the educational process. We can get the desired result only if we can see the necessity for purposeful formation of cultural competence. Mechanically using innovations in the educational process, changing the approaches and methods of pedagogical influence, we often only substitute the content by some separate forms. Therefore, the introduction and use of any innovation must be justified and it should correspond to the scientific paradigm as a whole, we must ensure that innovation does not become an obstacle in the formation, but on the contrary, will contribute to it. In this connection, we should pay special attention to the innovations that seem to be not directly related to the educational process. For example, we can talk about the active use of various technical means, which are connected with the rapidly developing market of modern technical devices. The latter ones permeate all spheres of modern life, including education, and very often their introduction occurs spontaneously.

The emergence of innovation is already a part of the culture, which influences the formation of cultural competence, adequate to the requirements of modern society. Every innovation has the potential destruction of the existing order, but it also suggests a more perfect model of what has been destroyed. Improving innovational technologies also implies making the cultural order more complex.

**Conclusion.** In conclusion we want to note that the purposeful formation of cultural competence allows us to create a socially adequate person, prepared for the challenges of the rapidly changing modern world.

#### Reference list:

- 1. Yanchuk V. Eco-cultural educational environment: the formation and development. Part 2 From culture to intercultural competence / VA Yanchuk // Adukatsyya i vyhavanne, 2013. – №7. – P. 60–67.
- Flier, A. Cultural Studies for cultural studies: Textbook for undergraduates, graduate students and applicants. 2 edition, revised and enlarged / A. Flier. – M., MGUKI, 2009. – 705 p.
- Author's courses forming eco-cultural dialogical developing environment in the system of supplementary education for children and young people [electronic resource]. -Access mode:<u>http://www.yanchukvladimir.com</u>. – Access date: 15.06.2014.
- 4. Orlova, E. Culture (social) anthropology: Textbook for Universities / E. Orlova. M.: Academic Project, 2004. 480 p.

# THE SYSTEM OF PSYCHO-PEDAGOGICAL PREVENTION OF BULLYING IN THE EDUCATIONAL ESTABLISHMENT

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Functioning of educational establishments in information society has become more transparent and «clear». This situation revealed many problems which neither school nor society had faced before. One of such social phenomena is bullying. *Bullying* (English. *bullying, bully* is a person who uses strength or influence to harm or intimidate those who are weaker) is a bad deal, discrimination, harassment, horrification, physical or other abuse, children's cruelty, demonstration of «fagging» at school, in a hostel [1, p. 203].

The researchers Shevtsova O., Titova E., Gin A., Muhina B., Frishman I., Schurklova N. and others point out that bullying as a phenomenon is

peculiar mainly to children or youth groups [2, p. 49]. First of all, it can be explained by the fact, that the school is a particular cross functional arena, the very place where children can get rid of numerous massed negative impulses. According to Kotova N.V. bullying is intentional, longtime physical or psychological violence on the part of individuals or groups towards an individual, which occurs mostly in organized groups with a specific personal goal (e.g., willingness to earn the authority among some individuals) [3, p. 4].

Bullying can appear in different forms in modern schools: from a nickname to an offence. In our opinion future teachers should be ready for bullying demonstrations and should master technology of solving certain problems, should know how to form non-violent environment in educational establishments.

The aim of the study of the research is to reveal effective psychological and pedagogical actions which will be focused on preventative measures of school violence, reduction of antisocial behavior at school.

**Material and methods**. Theoretical analyzing the scientific and academic literature, interviewing form tutors and subject teachers of primary school, questioning, diagnostics (test «Risk liability», Buss-Durkey checklist), interviewing administration and observation will be helpful in our investigation of the problem. 2 members of social-psychological service from Orsha College and 2 members of school stuff, 2 teachers with 3-year work experience of being a form tutor  $\mu$  26 pupils from 5-6 forms from Orsha State Comprehensive School  $N_{2}$  were involved in our experimental part.

**Results and discussion.** The survey revealed that 11,5 percent of children encountered more or less with pressure from classmates, 80,7 percent are aware that some individuals or some groups «can hurt other children». According to native and foreign scientists, about 23 percent of children (7-11 years old) are subjected to bullying towards them [1, p. 204]. In this case the essential features of bullying are the imbalance of power, repetitiveness, and unreasonable victim's sensibility.

We have found out that the initiators of bullying from psychological point of view are the children called «narcissuses». They are characterized by the need for power, the willingness of self-assertion towards others. Social care teachers, form tutors have already pointed out that you can find such pupils in any class. The teacher should be ready for competent and professional responding to these pupils, to teach children distinguish true personal strength and power. If a teacher could do it, the atmosphere in class would contribute to the growth of the personal power and freedom. In this regard, the principles of prevention can be:

- 1) absence of a teacher's confrontation with a power loving person;
- 2) allowance students to exercise power in structural projects and rule in the permitted ways.

In our opinion, each educational establishment must exercise the following system against bullying:

- diagnostics of psycho-emotional environment and motivational and educational work with the administration;

- consultative and educational work with teachers and parents;

- consultative and correctional work with children;
- informational and educational work with children;

- formation of the emotional environment of the educational establishment.

100 percent of the surveyed teachers have noticed that the role of information and educational work with children is considerably increasing in the modern educational situation.

While working with aggressive children teachers and parents can use the following guide-rules:

- turn negative attitudes towards the child into positive;

- change the style of interaction with children;

- extension of the behavioral repertoire through the development of communicative skills.

When a young teacher comes across children's and adolescents' aggression, he often makes the following mistakes: «barks» at children, changes the tone to menacing; admits sarcasm, mockery, ridicule; makes demands; threatens to punish, draws other people into conflict, gives negative assessment of the child's personality, etc. The following forms of behavior are considered to be preferable:

- relaxed attitude to minor aggression (expression of understanding of the child's fillings, refocusing);

- focus on actions rather than on the individual (to show that aggression hurts individual, to point out constructive ways of behavior in conflict situations);

- coupling back with the child;

- control over the negative emotions;

- discussion of the offence (after the solution of the problem and favorable results can be predictable);

– maintenance of a good reputation of the child;

- to demonstrate the model of non-aggressive behavior (non reflective listening, pausing, humor, the recognition of child's feelings, instilling calm non-verbal means, to clarify situation with the help of probing questions. The most important things are the sincerity of the adult, matching his nonverbal reactions to the words);

reduction of stress situations.

**Conclusion.** Bullying can be widely spread at school because of uncomfortable psychological climate, unwilling of teachers to solve problems quickly and inability of parents to find the right way out of the situation.

School violence has direct and indirect impact on children, in this connection, the educational establishment should carry out comprehensive work towards the prevention of bullying.

The extension of the professional identity of teachers, the formation of the ability to look into the essence of the process and commitment to innovation, to the use of more effective methods will help to reduce the demonstration of bullying. The improving of psychological preparation of students, the formation of skills of controlling the aggression, systematic pedagogical raids, discussion of problems in children groups are also important.

#### Reference list:

- 1. Белорусская педагогическая энциклопедия в 2-х томах. Т. 1. Мн.: «Адукацыя і выхаванне», 2015. 736 с.
- 2. Титова, Е.В. Если знать, как действовать. М.: Просвещение, 1993. 192 с.
- 3. Буллинг в школе: причины, последствия, помощь / сост. Н.В. Котова. Минск: Красико-Принт, 2015. 96 с.

# ANXIETY AS THE MANIFESTATION OF YOUNGER TEENAGERS' SCHOOL DISADAPTATION

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The problem of school disadaptation is considered in works of many researchers. Most of modern psychologists dealing with this problem consider that process of school adaptation causes difficulties in one and all children. It is caused by that strain which is experienced by the child' mentality. Pupil's organism in connected with sharp change of life conducts, significant increase and high-quality complication of school requirements. However, despite these facts, the process of school adaptation is unique.

School disadaptation is a social and psychological process of deviations in the development of capabilities of a child to successful mastering knowledge and abilities, skills of active communication and interaction in productive collective educational activities, i.e. this violation of the system of the relations of a child with himself, others and the world [3, p. 34].

The term «school disadaptation» («school impracticality») usually means any difficulties that a child has in the course of school training. Doctors, teachers and psychologists unanimously refer physiological implications of difficulties in study to number of the main primary external signs and various disturbances of school standards of behavior. From positions of ontogenetic approach the most important in the process of school disadaptation are the following factors: crisis, turning points in human life when there are sharp changes in its situation of social development [1, p. 54].

At cognitive, social and psychological level main signs of school disadaptation are the following: negative attitude to school (up to refusal to visit it), to teachers and schoolmates, educational and game passivity, aggression in relations with people and things, high anxiety, frequent change of mood, fears, obstinacy, whims, conflicts, feelings of uncertainty, inferiority, the difference from others, noticeable privacy in the circle of schoolmates, the lying underestimated or high self-esteem, hypersensitivity accompanied with tearfulness, excessive sensitivity and irritability [2, p. 21].

There is a tradition to bind a school disadaptation to those disturbances of educational activity which are combined with boundary disorders. So, a series of authors considers school neurosis as the peculiar nervous breakdown arising after arrival to school. Within a school disadaptation various symptoms become perceptible. This tradition is especially typical for the western researches in which school disadaptation is considered as a special neurotic fear of school (school phobia), a syndrome of an avoidance of school or school anxiety.

Really, high anxiety can't be shown in disturbances of educational activity, but leads to the serious intra personal conflicts at school. It is endured as a constant fear of failure at school. The increased feeling of responsibility is peculiar to such children, they study well and behave well, but feel strong discomfort. High anxiety is characterized by various vegetative symptoms, neurosis-like and psychosomatic disorders. In these disturbances their psychogenic character, genetic and their phenomenological linkage with school, its influence on formation of the person of the child is essential. Thus, school disadaptation is a formation of inadequate mechanisms of adaptation to school in the form of disturbance of study and behavior, the conflictual relations, psychogenic diseases and reactions, the increased level of uneasiness, distortions in personal development [4, p. 60].

The aim of the study is to examine the anxiety as the manifestation of younger teenager's school disadaptation.

**Material and methods.** The empirical research was made in order to find out younger teenagers' school anxiety. 117 pupils of the 5th classes participated in the research. Test of school anxiety of Phillips was used. The technique purpose was to determine the level and the nature of anxiety of children at younger and middle school age. The test consists of 58 questions, which the examinee needs to answer "yes" or "no".

**Results and discussion.** The results of the research are presented in tab. 1.

School anxiety	Высокий	Низкий
, s	уровень	уровень
1. General anxiety at school	51 (44%)	66 (56%)
2. Experience social stress	86 (74%)	31 (26%)
3. Frustration of requirement in achievement of success	93 (79%)	24 (21%)
4. Fear of self-expression	49 (42%)	68 (58%)
5. Fear of situations of examinations	33 (28%)	84 (72%)
6. Fear not to correspond to expectations of people around	76 (65%)	41 (35%)
7. Low physiological resilience to stress	92 (78%)	25 (22%)
8. Problems and fears in relations with teachers	62 (53%)	55 (47%)
In total	117	100%

Table 1 – School anxiety of pupils of the 5th classes (average values)

Thus, 44% of respondents in the group of younger teenagers had a high level of the development of general school anxiety, that is possessed the insufficient condition of satisfaction connected with various forms of their inclusion in school life.

74% of teenagers showed the high level of experience of social stress. It can be explained like emotional trouble in any situation of communication with peers.

The high level of development of frustration of need for achievement of success characterized 79% of pupils. The adverse mental background which doesn't allow to develop the needs for success, achievement of good result is peculiar to them.

42% of younger teenagers have a fear of self-expression, that is they experience negative emotions in situations connected with self-disclosure, presentation to others, demonstrations of the opportunities.

28% of examinees showed fear of situations of examination. That means that they feel anxiety in situations connected with control (especially with public control) of their knowledge, achievements and opportunities.

65% of pupils had a fear not to satisfy the expectations of people around. They had an orientation to the importance of others in assessment of the results, acts and thoughts. The estimates given by people around were very important for these pupils and they usually expected negative estimates.

78% of teenagers had low physiological resilience to stress, that is features of the psychophysiological organization reducing adaptability of them to the situations connected with stress, increasing probability of inadequate, destructive response to a disturbing factor of the environment

53% of teenagers had problems and fears in the relations with teachers. It means that they had general negative emotional background of the relations with adults at school reducing success of training.

**Conclusion.** Thus, younger teenagers are characterized by rather high level of the development of school anxiety. The greatest anxiety for pupils of the 5th classes is caused by communication with peers, achievement of

success and stress. We believe that the increased school anxiety is the manifestation of school disadaptation that requires specially organized work with younger teenagers.

#### Reference list:

- 1. Varlamova, A.YA. School adaptation / A.Ya. Varlamova. Volgograd, 2015. 311 pages.
- Soldiers, V. B. K to a problem of psychophysiological assessment of success of adaptation of children to school conditions / B. K. Voinov//World of psychology, 2012. – No. 1. – P. 20–21.
- Kleptsova, E.D. Influence of individual and typical features of the teacher on process of adaptation of school student / E.D. Kleptsova//Elementary school, 2007. – №. 4. – P. 33–35.
- 5. Shilova, T.A. Diagnostics of psychology and pedagogical disadaptation of children and teenagers: practical benefit / T.A. Shilova. M.: Ayres press, 2009. 309 p.

# SOME WAYS OF EFFECTIVE FOREIGN LANGUAGE MONOLOGUE TEACHING

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Nowadays the basic idea of the concept of foreign language teaching is to master the language as a means of intercultural and interpersonal communication. It's getting more important to model verbal communicative behaviour in the learning process. The success depends on numerous factors, such as the abilities to interpret speech partners' behaviour, to express attitude to the communication object and so on. So the urgency of our research is determined by the necessity to introduce modern teaching techniques into learning process, which leads to the improvement of the quality of foreign language education in general and to the improvement of teaching speech methods in particular.

The aim of the research is to determine the most effective ways of using verbal and visual aids for foreign language monologue development at English lessons.

**Material and methods.** When writing the article we used the following research methods: literature study on this topic and its critical analysis (the works by E.I. Passov, G.V. Rogova, M.V. Lyakhovicky, A.A. Leontyev, N.I. Gez and others), the observation of the learning process in Vitebsk gymnasiums  $N_{2}$  1 and 2, the experimental verification of foreign language monologue teaching based on verbal and visual aids during our teaching practice at Vitebsk gymnasium  $N_{2}$  1.

**Results and discussion.** Monologue must be situationally determined and motivated, i.e. a student should have a wish or an intention to tell others

something in a foreign language. The use of different aids is very effective for situational monologue teaching. According to the ways of material presentation there are verbal and visual aids. The difference between them is that verbal aids evoke different associations by means of words, and visual aids – by means of images of reality.

Such aids as logical syntactic schemes (LSS), functional semantic tables (FST), logical semantic models (LSM) and denotation maps play a very important role in teaching foreign language monologue. Their main function is to help directly or indirectly to produce a speech act by evoking associations connected with students' life and speech experience.

The LSS serve as visual verbal aids. They direct students' speech acts in the right direction, prompt the content of the speech act, the sequence of phrases and their total number. With the help of the LSS a teacher can manage students' speech acts evoking the necessary speech material, combine it and transform conversational texts [1, p. 194–195].

The main advantages of the FST is that these tables and the system of learning with them are created for students' independent communicative acquisition of lexical units and their organization of independent work in general. Using the FST a student doesn't face any difficulties connected with the meaning of new words. Meeting new words for the first time he chooses and uses them without his teacher's help. Thus he learns to organize his thoughts, which creates favourable conditions for the increase of involuntary memorization efficiency and teaching logical utterance [2, p. 123–129].

The importance of the LSM is that students are given the opportunity to use all types of speech. By means of the LSM the learner-centered approach is implemented and the basic principle of this approach is followed, i.e. there is a student and his learning activity in the centre of educational process. The LSM stimulates group work. Work in different regimes (in groups, in pairs, etc.) allows to adapt communicative situations, to use different conversational cliches, to reason and to compare. Due to such visual aids as LSMs the participants of the situation having a different level of language proficiency become equally competent to carry out a certain work.

Denotation maps as combined aids are also very interesting to use. They are able to draw students' attention to the communication object and its components for discussing this object from different sides. According to its form and content the denotation map is a representation of some combined by the key notion subject content which is figuratively and schematically fixed with the help of linguistic and extra-linguistic means. Around the key notion there is diverse, accompanying information of different levels, for example, the title of the text, pictures, words, phrases, sentences and so on. Thus, the denotation map is aimed at the production of all possible associations connected with some key notion. **Conclusion.** To aim monologue teaching at the acquisition of students' abilities to think logically, to highlight the main idea, to draw conclusions and to make speech linguistically correct, it's necessary to manage the process of foreign language monologue skills and habits formation. In this case the mentioned above verbal and visual aids are very productive. In spite of the great variety of the aids, they should meet the following requirements due to the methods and principles of foreign language teaching, namely: 1) taking into account the parameters of the studied material, in our case – monologue; 2) accessibility and visual demonstration (large font, italic type, colour highlighting, underlining, etc. are means of drawing attention to the components of foreign language material); 3) individualization of choice; 4) systematical work; 5) gradual increase of difficulties; 6) situational character of the speech act. Only following these principles the use of different aids to intensify the process of foreign language communication teaching is to be effective.

#### Reference list:

- Passov, E. I. The communicative method of foreign language teaching / E. I. Passov. M.: The Russian language, 1989. – 276 p.
- 2. Passov, E. I. Communicative foreign language education: personality development in the dialogue of cultures / E. I. Passov. Minsk: Lexis, 2003. 184 p.

# ROLE OF DIDACTIC GAMES IN CASE OF TREATMENT AND REHABILITATION OF CHILDREN WITH A CEREBRAL PALSY

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Cerebral palsy is the most common cause of children's disability among which on the first place – diseases of nervous system. The cerebral palsy is the second of the most widespread neurologic violations in the childhood. A big psychological injury for parents is that their children can't lead a fullfledged life. It leads to social disadaptation, quite often, to family disruption. At children with a cerebral palsy are struck various structures of a brain. With respect thereto at them speech frustration which, according to the statistics, take the significant place – from 65% to 85% can be observed. These frustration at children with a cerebral palsy are various, in most cases have system character and are connected with insufficiency the sensomotor of functions of cognitive activity [1, 2, 3, 4].

Purpose – determination of a role and value of didactic games during logopedic occupations in case of treatment and rehabilitation.

At present a number of medical and rehabilitation procedures in fight against the above-stated features of violations is developed. One of effective methods of rehabilitation in case of a cerebral palsy is development and holding didactic games. These games represent the multidimensional, difficult pedagogical phenomenon: it is both a game training method of children of preschool age, and form of education, and independent game activities, and means of comprehensive education of the identity of the child. Such occupations give the chance to solve various pedagogical problems in a playful way, and are most available to preschool children [2, 3, 4].

The value of didactic games is that they are created in the training purposes. Thanks to their use it is possible to achieve stronger and conscious knowledge, skills, also to promote forming of interest in such occupations. A didactic game awakes children's imagination, creates high spirits [1, 3, 4].

**Material and methods.** Researches were conducted based on the Vitebsk regional clinical center for the address: Vitebsk, Chkalov St., 14 century in a logopedic office. At children from a year to three years in the anamnesis cerebral palsy it was carried out the pilot study including diagnostics of the speech, consultation, development of articular and small motility, development of the coherent speech and attention, memory and thinking, holding didactic games.

**Results and discussion.** Almost at all children with children's paralysis late speech development is noted, the lexical inventory considerably lags behind an age regulation. The narrow outlook of children, insufficiency in detail - practical actions, lack of full-fledged articulation support, violation of phonemic hearing, instability of communications between objects and their sound images is basic reasons of insufficiency of the dictionary. Violations of visual perception, feeling of space, three-dimensional sight lead to the distorted, fragmentary perception and don't allow children to create a complete image of a subject. It considerably impoverishes the speech of the child the nouns designating parts of objects, the adjectives designating the size, color, a form, qualities of objects [1, p. 3].

At present a number of medical and rehabilitation procedures in fight against the above-stated features of violations is developed. One of effective methods of rehabilitation in case of a cerebral palsy is development and holding didactic games. These games represent the multidimensional, difficult pedagogical phenomenon: it is both a game training method of children of preschool age, and form of education, and independent game activities, and means of comprehensive education of the identity of the child. Occupations such give the chance to solve various pedagogical problems in a playful way, are most available to preschool children.

Before each occupation it is necessary to think over an objective in advance proceeding from age and abilities of each child. A certain task that he met in case of its decision some difficulties should be set for each child, but didn't receive all in finished form. If the child in a game felt difficulty, then it is necessary to help to remember him what was studied on this matter on occupations or saw during the excursions. It develops speed of thinking, ability to analyze, draw the conclusions. In didactic games children realize better and fix distinction, similarity, equality of objects, seize a concept that objects, different in content, can be painted in identical color. When holding a didactic game the tutor thinks over its structure, carefully and comprehensively develops the action plan for achievement of the task set in a game. In this plan the actions, actions of group should be determined, children to whom it is necessary to pay attention are planned, game material is picked up and will estimate calculation of time. Didactic games should be planned in such sections of the program as acquaintance with the world around (animals, plants etc.), studying of flowers, development of the speech, elementary mathematical representations, physical and musical training.

Didactic games are held with objects or pictures (studying of animals, plants, recognition of flowers, figures, numbers, etc.); didactic games can be verbal (answers to questions).

The didactic material which is picked up for a game has to be externally attractive; purpose of objects and sense of questions have to be clear and clear to children. The quantity of objects (and pictures) for didactic games in each age group has to be sufficient for involvement in a game of all children.

Results of such games is development of a sensory and motility, informative development of the child, formation of interest of the child to such occupations. In a game the child not only specifies and sets the knowledge, but also again emotionally endures the familiar phenomena and life situations, there is a need of the child to influence the world surrounding him. Such game promotes obtaining new knowledge, their generalization and fixing, there is a knowledge of relationship between children, adults.

**Conclusion.** Researches have shown that in the course of the game intelligently passive child is able to perform the volume of study what is absolutely inaccessible to him on ordinary occupation. Use of a didactic game in teaching and educational process of preschool institutions is caused, first of all, by the fact that a game is the leading activity at this age. At the same time there are almost no researches directed to studying of a problem of use of didactic games in ecologo-esthetic education of children of preschool age. In that way, didactic games act as means of comprehensive education of the identity of the child that important at his development and rehabilitation.

#### Reference list:

- 1. Badalyan, L.O., Zhurba, L.T., Timonin, O.V. Cerebral palsies / L.O. Badalyan, L. T. Zhurba. Kiev: Health, 1988. 322 p.
- Semenova, K.A., Mastyukova, E.M., Smuglin, M.Ya. Clinic and rehabilitation therapy of cerebral palsies / K. A. Semenova, E. M. Mastyukova, M. Ya. Smuglin. – Moscow: Medicine, 1972. – 329 p.
- 3. Semenova, K.A. Cerebral palsies. Cerebral palsies / K. A. Semenova. Moscow : Medicine , 1968. 260 p.
- 4. Nikitina, M. N. Cerebral palsy / M. N. Nikitina. Moscow: Medicine, 1979. 120 p.

# THE ROLE OF THE FAMILY IN THE FORMATION OF VALUE SYSTEM OF STUDENTS OF COLLEGES

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Premarital education is systematic influence on the younger generation in order to prepare and include it in the marital relations (relations between a man and a woman), to form a family man and ensure the continuity of generations in the sphere of marriage and family relations.

The study by V.Y. Cherkasova proves that ideas about the love life and focus on the creation of one's own family in the future are formed in the parental home. A person gains life experience in the family since early childhood [2].

The aim the study – look into the role of the family in the formation of family values of the younger generation.

**Material and methods.** The study was carried out at EE «Vitebsk State College of Music named after I.I. Sollertinsky». To fulfill the goal of the study the following methods were used: terminological, questionnaire survey, methods of mathematical statistics, examination and generalization of psychological and pedagogical expertise.

Results and discussion. The willingness of young people to live independently, to create a happy family depends on their parents. The formation of readiness for family life is affected by family traditions. Traditional celebration in a family setting of national holidays (May Day, Victory Day), a celebration of such events as birthdays, beginning and ending of the school year, getting a passport, coming of full age, seeing off to the army, the start of work life, retirement, etc., unfortunately, is becoming a rarity in the modern family. Not long time ago many families had a tradition of the afternoon tea, when no one was in a hurry to leave the table, when adults and children discussed the events of the day, joked, made plans for tomorrow and for the near future, solved urgent problems, including those that concerned children. It's important to notice that such traditions as giving each other gifts on New Year's Eve, preparing a surprise on March 8 for wives, sisters, mothers, celebrating Midsummer Day still continue to exist. The use of internet technologies (holiday greetings through a worldwide network are becoming a new form of interaction between people and even relatives) has turned into a new way of passing and a kind of revival of traditions. People sometimes forget that respect for traditions enriches the emotional life of the family, unites it and raises its prestige in the eyes of a child.

Family heirlooms (personal documents, photos, letters and awards) give a special educational charge. Cherished heirlooms are a valuable means of formation of high moral, ideological conviction in the importance of family among the younger generation.

Leisure activities play an important role in the life of each family. Doctors and psychologists recommend arranging family outings in the park or the woods, where you can talk calmly, answer some questions of the child. It is also vital to have family hobbies (collecting, mushroom picking, fishing, tourism, etc.).

The research by V.A. Sysenko [1] has shown that parents try to instill in their children the following qualities that they primarily will need in the future family life: diligence, thrift, responsibility, the ability to care for children, the ability to give, to earn one's own living. These qualities, in the opinion of the older generation, can provide a stable and long-term, relatively conflict-free relations in the family. As for the qualities of a future life partner, parents want to see: love for their child, responsible attitude, the ability to demonstrate diligence and thrift. V.A. Sysenko states the main activity areas aimed at preparation for family life: moral (awareness of the value of marriage, children, etc.); psychological (the amount of psychological knowledge required in marriage); educational (skills and abilities to bring up children); sanitary and hygienic (hygiene of marriage and life); economic - household. [1]

In order to study the process of formation of family values among students and their preparation for a conscious marriage, we carried out a survey among students of EE «Vitebsk State College of Music named after I.I. Sollertinsky». The total number of respondents was 45 female students.

We asked the following question: «Do you want to have a family in the future?». The answers are as follows: 76% of the respondents are going to have their families in the future, 2% - do not intend to, 22% - do not think about it. To the question: «When do you want to start a family» we received the following answers: 35% of the respondents are going to have their own family not earlier than in 4–6 years; 33% - in more than 7 years; 20% - in 1-3 years, which indicates a high degree of readiness for the marriage; 12% of the respondents show readiness to start their own family. Young people of this age group are not ready enough for future family life. To the question: «What age do you think is the best for marriage?» we received a variety of answers, which indicates that nowadays the younger generation has no consensus as to the age when one should get married. Having analysed the data obtained during the survey, we can distinguish the following age limits – from 20 to 25 years old. One more possible age range is from 18 to 32 years old.

We have studied the sources that help to form readiness of girls for marriage. Unfortunately, we have noticed a negative trend -66% of the respondents say that parents do not talk and did not talk with them on the

future family life and the don't have any family traditions, and only 34% gave a positive answer.

The majority of respondents own home leisure spend in front of the TV 56% and also doing work at home 49%. It is important to note that the culture of family entertainment, of course, depends on the culture of their parents, how they organize their free time. If parents have any Hobbies, the children are willing to share them and, quite possibly, this experience will carry into their adult life. Only 13% of respondents noted that collaboration with parents doing outdoor activities (walking, sports). Large part of free time girls spend in the company of peers outside the home.

In addition, 46% of the respondents said that they did not have any activities aiming at preparation for marriage at school, 28% said that such activities were held at their school and 30% were undecided. To the question: «Does the relationship of your parents set an example for you?» we got the following answers: 34% of the respondents consider the relationships in their family ideal and are going to build relationships on the example of their parents, 46% of the respondents do not consider the relationships of their parents a good example for creation of their own family, 20% of the respondents are from single-parent families, which is an important factor in shaping the image of the family and family values.

**Conclusion.** Family plays the most important part in the life of every human being and in a very special way affects the formation of his family values and priorities in life.

Modern family does not spend enough time with their children, family traditions are in stage of transformation, heirlooms become obsolete, children's activities extend to leisure pastime. From the conducted study we can draw a conclusion that preparation of modern students to marriage and family life is determined by a number of factors. However, the most significant role among them, in the opinion of respondents, plays the parent family, its values and traditions.

#### Reference list:

- Sysenko, V.A. Newlyweds are in the mirror of own looks, judgements, estimations / V. A. Sysenko. – M., 1985. – 214p.
- Cherkasova V.Y. Contradictions of development and implementation of spousal attitudes in the modern period: abstract of thesis, Candidate of Sociological Sciences: 22.00.06 / V.Y. Cherkasova; Ural state University named after A. M. Gorky. Ekaterinburg, 2004. 21p.

# HISTORY, THEORY, PRACTICE AND METHODOLOGY OF VISUAL ARTS TEACHING

# THE ELEMENTS OF BELARUSIAN NATIONAL COSTUME IN THE ARTISTIC PRACTICE OF THE BELARUSIAN FASHION DESIGNERS

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The use of the cultural traditions of ethnic costume is becoming increasingly popular in a multinational space of the modern world. Today Belarusian national costume, as one of the most important components of the material culture of the Belarusians, exists in three forms: as an object of study for scientists and museum workers, as a scenic costume of folk groups, and as a source of inspiration for modern designers.

The cultural heritage of every nation has always been a source of inspiration to create new art images in fashion design [1]. Belarusian national motives have become an essential part of the work of many contemporary Belarusian designers. Designers create new collections, which contain all the richness of the ethnic image by stylizing Belarusian traditional national costume of former generations.

This phenomenon is reflected in the dialogue of one color to another, the use of structural elements of the traditional suits, modern interpretations and transformations of ornament, symbols and images that are associated with the cultural background of our country.

The relevance of the research - is necessity to study the role of the Belarusian national motives in contemporary fashion design and features of their interpretation in the works of various Belarusian designers.

The aim of the study of the basic principles of the use of different national motives in contemporary fashion on the basis of works of Belarusian fashion designers.

**Material and methods.** The research is based on the materials of Belarusian fashion designers' collections, which were presented at the recent fashion shows in Belarus and abroad. During the research we used chronological, comparative and relative methods.

**Results and discussion.** Sustainable color scheme of the traditional peasant costume – a combination of white and red – is one of the most impressive features of the ethnic Belarusians culture. Black or blue played only a supporting role in dominant colors. This tradition was preserved and transmitted through generations. Collections by Yulia Latushkina is a great example of using traditional belorusian colors. There are white, red and black

colors which are combined with themselves and organize interesting graphic planes of models of clothes. Describing this clothing we cannot but mention other characteristics: ornamental patterns, specific structural elements of clothes (multi-layeredness, basques, shirts with a belt etc.) Also Y. Latushkina developed ceremonial uniform for the belorusian sportsmen on the Olympic games in Rio. The basis of the development of design is an idea of using three colors, which are always associated with Belarus: white, red, grey.

The main element of the collection is a stylized ornamental Belarusian cornflower, which was used in the traditional Belarusian towels. The pattern is a symbol of land productivity, prosperity, strength and purity. Dubbed decorative ribbon prints formed the basis for the design of the Olympic form.

The use of the Belarusian ornament is constant authentic way of decorating clothes. That trait is transferred in the modern image by such designers as: Tatiana Kushnerova and Natalia Yakutovich, Ekaterina Zanko, Inna Glod.

Geometric, floral belarusian ornament, its variation and transformation in a modern way exist in these designers' clothes collections. This type of ornament is used in the form of individual ornamental patterns, and in the entire ornamental patterns decorating cuffs, collars and bottoms clothing products etc. Some designers are engaged in a thorough study of the symbolism, trying to keep the whole costume in archaic Belarusian technical performance tradition. For example, a young designer Diane Loveykina uses only natural materials and hand embroidery in its products.

Many features of the cut, as well as accessories that match the Belarusian traditional costumes attract the attention of Belarusian designers. So designer Anna Zuënok skillfully used the multi-layered, imitation of apron, interpretation of the head-dress element – wimple, voluminous sleeves in her collection. In addition, clothing was decorated with geometric pattern. Vitaly Zhivlyuk in his collections used traditional colors, while maintaining a silhouette and ease of Belarusian costume. The collection of Elena Sergeeva exposed belts, casings and multilayered skirts with the help of natural materials [2].

**Conclusion.** Today it is difficult to imagine the creative work of Belarusian contemporary designers without folk-ethnic theme. It fully reflects the desire of Belarusian designers to create new forms of traditional Belarusian costume at the stage of the fashion trend. Thus the design of clothes in Belarus is oriented not only on a big experience, but it is approved in the context of modern European styling, as well as gaining recognition of the leading founders of modern clothing.

#### Reference list:

- 1. Andreeva, RP, fashion encyclopedia. / P. Andreev // SPb .: "Litera" Publishing House, 1997. 416 p.
- 2. Designers| Belarus fashion week [electronic resource]. access mode: http://www.bfw.by/ru/designers/. access date 28.10.2016.

# INSTILLING SOPHISTICATED PERCEPTION OF COLOR IN PUPILS THE CHILDREN ART SCHOOL

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It is impossible to imagine our world without color. Color means life, it is what we see. It is all around us and with us everywhere. Every hour of the day color creates a certain mood through the interior of our house, clothes and even food. But most of the time we almost do not pay our attention to it we are just used to seeing it. However, with the assistance of a competent teacher, color can become an effective means for aesthetic and moral education of children and young people. This broad and very live issue deserves special attention in the process of education, particularly in instilling sophisticated perception of color in children, expanding their knowledge about color, its psychological impact and role in a person's life.

The aim of the article is to study ways to improve color perception of pupils in children's art schools.

**Material and methods.** Teaching experiences, particularly studying chromatics in the lessons of painting and composition in children's art school named after I. F. Khrutsky in Novopolotsk served as material for this article. We used the methods of analysis of experimental exercises and test results, a questionnaire and testing.

**Results and discussion.** Color is light. Isaac Newton, an English physicist and mathematician discovered this during his experiments on the color spectrum. Thomas Young determined that the color spectrum can be reduced to three basic colors: green, red and blue. He also classified the colors of the spectrum as primary and secondary. Primary colors are colors that cannot be created through the mixing of other colors. Primary colors can be mixed together to produce secondary colors. There are also complementary colors. They are located opposite each other on the color wheel.

Chromatics gives different characteristics of colors that students should be taught in their art lessons. The basic characteristic is temperature – warm cool. Warm colors are called so because they are associated with fire, sun, warmth; these are colors arranged from yellow to red-violet on the color wheel. Cool colors are those which are reminiscent of cold, winter, snow, etc. They are from purple-blue to green-yellow on the color wheel.

Colors can make you relive different memories and emotions, images, mental states, that is called color associations. In addition to generally accepted characteristics of color, different time periods, peoples, cultures, countries can have different associative color ranges. Everyone's imagination paints a variety of images, sensations, moods associated with color. When doing practical exercises in the lessons of painting and composition art school students face the problems related to the use of color. In this regard, we asked the students to do some tasks on associative perception of color.

Task 1. Use different colors to show these four emotions: anger, peace, joy and sorrow on A4 sheet of paper. Do not draw any objects, but only color. Use any materials.

Analyzing the students' works, one can note that most of the students use the same colors to show certain emotions. For example, most of the students associate "anger" with black color, often in combination with red. "Sorrow" usually paints gray, purple, blue shades in the mind. Yellow and orange colors are usually used to show "joy". The children's paintings have proved that the color carries specific information and people can feel the impact of every color. The results show that bright and warm colors express positive emotions, while dark and cool colors often negative ones.

Task 2. The Art School Students were asked to write in two columns their "favorite" and "least favorite" colors. The analysis of 27 quizzes showed that there were nearly twice as many positive colors (32 colors were given) as negative ones (19 colors). Green, coffee, cerise, magenta, violet, cyan, blue, yellow, ochre, emerald and red colors were called the most "favorite" colors. (5–13 votes).

Ochre, yellow, brown, pink, gray and black colors were called the "least favorite" ones (5-16 votes). The results of the survey indicated that the students see more positive than negative in their lives.

Task 3. Associate four seasons with colors.

Table 1 presents the results.

Table 1

Color associations with four seasons, presented by Novopolotsk art school students.

	Serie of Statemes.		
Season	Color/the number of votes		
Winter	White/20; cyan/17; azure and blue/13; emerald/6; gray/5; lilac and scarlet/3; pink,		
	cornflower blue, violet/2; black, coffee, cream/1.		
Spring	Green/15; yellow/11; lime/8; cyan/5; pink, cornflower blue/4; red, cerise, ochre,		
	carrot orange, lawn green and white/3; scarlet, orange, golden yellow, brown,		
	citrine, blue, lilac/2; purple, peach, fern green, emerald, violet, gray, turquoise/1.		
Summer	Yellow/17; Green/12; red, orange, lawn green, /5; lime/4; pink, scarlet, golden		
	yellow/3; purple, peach, azure/2; cerise, brown, citrine, fern green, emerald, blue,		
	lilac, raspberry rose/1.		
Autumn	Orange/14; yellow/11; golden yellow/10; fern green/7; red and green/5; carrot		
	orange, brown, gray/4; citrine/3; lime, emerald, blue, cyan/2; pink, murrey, cerise		
	and lawn green/1.		

Interviews, discussions, exercises, quizzes and tests have made the students more interested in this subject and their work with color in the lessons of painting and composition has become more informed and sensitive.

In conclusion it should be pointed out that knowledge about color is necessary for upbringing of an educated and well-cultured personality. It's very important to know characteristics, symbolics and meaning for correct understanding and using colors.

**Conclusion**. To improve the efficiency color perception of in learners of children's art schools, the following conditions are necessary:

- Increasing students' theoretical knowledge about color and its psychological characteristics;

- Experimental work, tests and exercises aimed at developing students' associative color perception.

- Students' acquaintance with the gained experience of application of knowledge about color in different spheres of life.

#### Reference list:

- 1. Golubeva O.L. Osnovi kompozicii / O.L. Golubeva. Moscow: "Izobrazitelnoye iskusstvo", 2001.
- Mironova L.N. Cvet v izobrazitelnom iskusstve / L. N. Mironova. Minsk: Belarus, 2005.
- 3. Rinkevich U.I. Mastatstva akvareli / U. I. Rinkevich. Minsk : Belarus, 2001.
- Senko D. S. Osnovi kompozicii I cvetovedeniya / D. S. Senko. Minsk: Belarus, 2010.
- 5. Kandinskiy V.V. O dukhovnom iskusstve / V.V. Kandinskiy. Moscow: Arkhimed, 1992.

# IMPRESSIONISTIC VISION OF THE IMAGE OF NATURE IN MODERN BELARUSIAN PAINTING

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The most numerous group of works to be presented at various exhibitions, is a landscape but there are also still lifes.Typical of these paintings – the attraction of authors to the so-called reconstruction of the image of nature, which is manifested in maintaining the real balance of objectivity and space, the real color. Another way this can be called realistic or traditional painting.

The purpose of the study is to reveal the peculiarities of impressionistic vision of the nature image by the various representatives of contemporary Belarusian easel painting.

Material and methods. Material for writing the article were reproductions of works of modern Belarusian artists (1990 to 2015).

Research methods presents description: comparative and analytical, comparative.

**Results and discussion.** In the framework of landscape painting detected elements of impressionistic images, in General, the base installation for the artist are the objectivity of perception and image.

Also there are workswhere the predominant objective and realistic image. This is due to the difficulties in the search for new solutions to traditional genre painting, which historically paid tribute to all national schools and style. Along with them there are works where bright individuality of the artist is manifested in full measure, in spite of the simplicity of the story motive [3].

The impressionistic beginning in various works of contemporary authors is based on the continuing of realism and is based primarily on the expressed subjectivity of perception and the transformation of the observed pattern. This is due to the task of the artist to convey psychological meaning: to convey his perception of nature, and not just the very visible nature in its entirety and the specifics. Impressionism in easel painting are very multifaceted, diverse trends in the works of a large number of domestic masters. However, it is difficult to positively say that someone of the painters in its purest form is expressed impressionistic beginning. Contemporary artists, in question, are living in a period when art has been very widely used "archive" - art opening various historical periods and national schools. Sometimes it can be called eclectic, sometimes, in more serious cases, stylistic synthesis, which involves the creative recycling art installations predecessors. Features of impressionism can be seen in the picturesA. Chmil "Astra" (2001), A. Calasanzio "Bialowieza" (1993), E. Gilewicz "Blooming Apple trees" (2006).

It is evident impressionistic brushwork in the works of A. Chmil. Among his works are the following: landscapes "Evening. Old Vitebsk" (1990), "Morning town" (1992), "Vitebsk. Spring water" (1998), "Winter window. Town hall" (2002), "The Spaso-Euphrosyne monastery. Autumn" (2002), "Rained" (2004), "Morning on the Dvina" (2008).

Artists often work in several genres, some manifest themselves not only in landscape but also create compositions from different natural images and details. It can flower bouquets, arrangement of flowers, berries, various combinations of fruits. To call these compositions of still lifes would not be desirable, because in this case prevents a contradiction between the name (dead nature) and essence (living matter). Of course, many conditional terms, and yet in this case the most suitable term arrangement. Examples such paintings A. Chmela as "jingle Bells. Salute To Chagall" (1997), "Asters" (2001), "Iris" (2007).

In the works of the individual vision of the world inherent symbolic representation of reality. So for pictures V. Osipova, working mainly in oil

painting in the still life genre and thematic compositions, characterized by an appeal to the symbolism, mythology and religious topics. Examples include "the Birth of amber" (1996), "Ritual" (1997), "Three fish" (1997), "the Golden river" (1999), "Before the Cup" (1999), "Chalice" (2000), "the faith" (2001), "the Golden fleece" (2001), "Bratina" (2002).

I. Lisica across the special colour and composition shown, the image of nature. The author's personality characteristic most beautiful songs such as "On the Dvina" (1986), "Ancient Vitebsk land" (1987), "Autumn" (1999), "Village Krasnoluki" (2000), "Lepel" (2001), "Farewell to summer" (2008), "sky High" (2010), "Evening" (2010), "the Road" (2010), "Osaca" (2010).

The images in the paintings of A. Litvin are the result of a combination of animal elements of dance and imagination of the artist, where the chaotic shapes and sharp color contrasts could not be better reflect the full range of his emotions ("Morning" (1998)).

Let us consider some examples of the works.

Attract the attention of two compositions A. Chmela "Asters" (2001) and "Irises" (2007).

The first can be called a decorative scenic, it differs a great development in terms of composition. First, we have created a wonderful decoration around the bouquet formed by the different shades of fabrics, of different texture, which would affect the vessel, give a certain brightness of the overall surface color of the environment. Second, properly combined according to the large planes and resonate in specific detail the numerous shades of blue, purple, green, yellow colors, use colored shadows; paint harmonized at the expense of reflexes and Valeria and their General restraint. This primarily adds a special touch to the picture. Third, the achieved volume and color balance of natural details – bouquet of asters. This is achieved by statpadders line bevel of the table edge and light fabric, harmonizing between horizontal and vertical, dynamic and static images. It should also be noted the gracefulness of the image, so full of realistic detail decoration around the bouquet leaving a feeling of easy living.

"Irises" (2007) A. Chmela interesting other features. The image has a different color and composition solution: almost all of the plane of the painting is densely closed flowers and stems on the basis of complex rhythm is formed on the hard the intersection of the horizontal and vertical. Paint creating a feeling of vitality of nature. The essence of the content of this painting is not as artistic and aesthetic as a philosophical sense: a picturesque aspect, with all its expressiveness, allows to perceive the image as a picture of a natural philosophical nature.

Interesting landscape I. Lisica "Farewell to summer" (2008). The author found that they had sufficient novelty image. In this case, artistically reflecting on the surrounding reality, to compare it with the objective reality of man, the author creates a work, filled with complex emotional attitude to pristine nature. Coloristically regard; the centre is the active area on the background in gray with small nodules light ochre background,occupying all the empty space image generated contrast the background (it is constituted by a paint saturated reddish and yellow-green), emphasizes the delicate form in the foreground. Composite nesting, and color create interrelated plans, which creates the integrity of the image.

In the works of E. Gilewicz present and recognition of image objects, they are clearly realistic, but also focused on the experiment.

In this regard, the most interesting picture of the artist can be called "Blooming Apple trees" (2006). The work done in a warm colour. The technique has a sketchy character of the letter, presence of pastoznost in working through the details of the foreground. Use warm colors: yellow, green-yellow, ocher. Cool colors give the elegance and nobility of the color of flowers and leaves. In such a transfer citenet desire to be faithful to reality, this image correction, soft persondays reality, it is obvious function expressions of subjective perception.

**Conclusion.** Impressionistic features in the implementation of the artistic image of nature as manifested in the nuances of technical performance (brightness and purity of shades, pointillism), composition(a mixture of focus on something atipicheskie), and philosophical view of the value of each moment of reality.

The example in this article works demonstrate the openness of many authors creative experiment, to find new possibilities of expression.

### Reference list:

- 1. Volkov, N.N. Composition in painting / N.N. Wolves. Moscow: Art, 1977. 263 p.
- Zhuk, V. I. Fine arts / V. I. Zhuk // the Modern Belarus: an encyclop. reference: 3 Minsk: Belarusian. Science, 2007. Vol. 3: Culture & art / redkol.: Mikhail Myasnikovich [and others]. – P. 341-387.
- 3. The Art Of Belarus. Art album / comp. OO "Belarusian Union of artists", ed. Introd.article A. Believes. Moscow: Galart, 2010. 216 p.

# THE MAJOR STYLISTIC DIRECTIONS OF CHINESE TRADITIONAL PAINTING

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One of the major stylistic directions of world art culture is traditional Chinese art with its authentic features, with examining of which inexperienced viewer can get an impression of it to be created in one and the same style.

The aim of the study is to identify the main stylistic trends of Chinese art.

**Material and methods.** The materials of the research were based on art history literature of authentic Chinese authors, available in the translation and with commentaries of Russian orientalist, and some online resources on relevant topics. Methods of the research are presented by descriptive and comparative - collative methods of analysis.

**Results and discussion.** A line is considered to be the major means of expression in Chinese art. According to the Chinese artists in each line there must be presented the power and rhythm of life, and that is why figurative paintings are very important in their following specific characteristics: dry, humidity, elegance, length, credibility and so on [1, p. 5–7].

Chinese art is often determined, but is not confined, by the three main styles. A stylistic direction, referred to as "Gunbi" in Chinese means "a thorough, careful brush". It embodies the art by careful consideration [2].

In the basis of a direction called "sei" lies transfer of ideas, which in translation means "a rough brush". The main task of representational activity in "sei" style is not transfer of external similarity, but transfer of the essence of the depicted.

"Gunbi" as pictorial stylistic direction, until middle of the Medieval Time was more popular than painting in "sei" style. However, from middle of the Medieval Time, painting "sei" began to occupy a dominant position. "Gunbi" was rather craft style than artistic one, so there were artists and craftsmen, who worked in that style and lived at the expense of constant artistic activity: designing palace interiors.

Artists and craftsmen working in "sei" style painted extempore, on a whim, reflecting the texture of the object using a broad brush, mascara and sketchy means of painting. Conceived and decorative color relations, as in "Gunbi", were foreign to art in the style of "sei". On the contrary - it was mostly monochromatic. But, in spite of some preliminary and discreet monochromaticism, this style is inherent and genuine sincerity of its expression.

Along with the concepts of "thorough and rough brush" concept of "brush concise" is quite common in Chinese painting. Concept of simplicity is hiding in conciseness, which characterizes itself by reducing the means of fine art to an expressive minimum. One can understand the main features of these directions, but the art is not necessarily related to one of the directions. It can easily occupy an intermediate position [3, c. 62–70].

In China, the practice of art is due to the tendency of unity of painting and calligraphy. Calligraphy was a means of implantation to the canvas of poetry. Particular attention is paid to the choice of calligraphic handwriting to transfer poetic peculiarity. Shi - Tao wrote: "... art is silent, but it gives rise to poetry ..." [4, p. 61]. The final accent in the work of the master was a red seal stamp made of wood, stone or metal, which was, by itself, the final accent, which helped to achieve a combination of painting, poetry and calligraphy of special sounding [2].

**Conclusion.** Speaking about the conclusions, it should be summed up that the knowledge of the basic style directions and features provides the ability of adequate, competent and holistic perception of orientation in such a multifaceted and ambiguous phenomenon of world culture, as Chinese traditional painting.

#### Reference list:

- 1. Zhang Anchzhi. The history of Chinese painting. / Zhang Anchzhi; translated from Chinese. M.: Phoenix, 2008. 350 p.
- 2. Everyting about China. Briefly about Chinese art. [electronic resource]. Access: <u>http://www.china-voyage.com/2016/02/kratko-o-kitajskoj-zhivopisi</u>.
- Sokolov-Remizov, S. N. Painting and Chinese and Japanese calligraphy on the turn of the millennium in the aspect of futures speculation: between past and future / S.N. Sokolov-Remizov. – Moscow: Editorial URSS, 2004. – 256 p.
- Zavadskaja, E.V. "Conversations about painting," Shi tao / E.V. Zavadskaja; artist E.L. Erman. – M.: Home Edition of Eastern Literature publishing house "Science", 1978.

# ICONOGRAPHY OF CHRISTIAN ART IN MINIATURES OF RADZIVIL'S CRONICLE

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In the Middle Ages hand-written chronicles and annals were the basic source for transfer and storage of the historical information. They were to some extent illuminated by the miniatures, which had first of all utilitarian character and consequently differed from miniatures of cult books. Miniatures of annals have the difficult coded language in which has found the reflection and iconography of Christian art. The chronicle, named on a surname of its last owner Boguslav Radzivil, was transferred to the library of Kenigsberg in the end of 17 centuries. The further destiny of Radzivil's annals has developed so, that it has been keeping in Russia since XVIII century. A lot of Russian scientists have paid their attention to this medieval masterpiece, but Russian scientists studied it within the limits of Old Russian annals. So we have necessity for its studying by the Belarusian scientists.

The purpose: to analyze lines of Christian art iconography in miniatures of Radzivil's annals.

Material and methods. The material of our study is miniatures of Radzivil's chronicle. In this research comparative-analytical method was used.

**Results and discussion.** The history of the Christian world totals more than 2000 years from the moment of a birth of "the Tsar of our souls, the Tsar of the truth, the Tsar of love, good, justice and our hope" [3, 18]. The new religion generated also the new art with conformable canons. "In the beginning the Christianity has not given to art new art forms, it has enclosed in old the new maintenance..."[1,10]. Besides persecutions on Christians has led to occurrence of the whole assembly of martyrs " which circumstances of the life, the image of persons and events of a Christian epoch has created own Christian iconography" [1,10]. In the Middle Ages it is possible to observe partial carrying over this iconography from the sacral sphere to the sphere of secular art. The given tendency can be tracked in Radzivil's annals.

The Radzivil's annals was created in 1485-1495 and represents the list with earlier, dated XIII century, manuscripts and the arches. The manuscript is richly illustrated and totals 618 miniatures represent the same motley mosaic, as well as the text. In miniatures has found reflection of ideologically political situation shown in glorification of one prince and abusing of another. The annals begin with the Story of time years and have secular character, narrating about historical events, except for partially included annals of the Pechersky monastery. In despite of secular orientation of the manuscript, in its miniatures reflection of Christian iconography has found.

As one of examples of such reflection it is possible to name the image of Byzantine emperor Iraklij (sheet5). On altar- painting, in icon-painting it is possible to track out monumentalism of an image of Christ and Maiden Maria, dominating over other figures in multifigured compositions. This method opens sacral sense of divinity of the Christ and Maria's sanctity, and the innocence over other mortal. According to Christian outlook any power (the king, the emperor) has the Divine beginning and represents the election of "God's anointed sovereign". Iconography of the Christ's images is carried to the image of the emperor - the emperor obviously dominates over the citizens, its figure is monumental, it is represented with attributes of the power: with a crown, a sword and on a throne.

In the image of prince Vseslav Polotskiy (sheet97 the other side) it is possible to find lines of an identification of supernatural abilities attributed to him (he was considered as the wizard, capable to turn to a wolf) with magic nature of the Magi who have brought the gifts to baby Jesus. When the West - Greece and Rome - have got acquainted with the Persian magicians, they began to use words " the magi" as a symbol of something magic, mysterious..." [3,18]. In sacral art the magi, as a rule, are represented in rich, east, sometimes fantastic, attires. Vseslav is also represented in a similar symbolical-fantastic attire.

In the Western art, since the Middle Ages, there is a large quantity of images of a various sort of monsters, demons, impressing with the disgusting kind in all variety of forms. Portals of cathedrals decorate scenes of Last Court and the Hell. In Radzivill's annals there its own "bestiary" borrowing images of the Western art. As an example there is the allegorical image of pestilent in Polotsk (sheet124): the demons, ready to attack at night on the people who have taken cover in houses. Art language of a miniature gets a sharpness - rhythmics of demons' bodies, alternation yellow and black, stains of townspeople's faces in dark windows create pressure. On the following miniature we can see the same demons, but they're riding horses and attacking inhabitants in the afternoon. They are represented in the form of the monolithic group, ready to strike by a sword, to wipe off the face of the earth anyone got on their way. Dynamics to group is given by the swords, which are representing a trajectory of blow, and the same rhythmics of yellow and black bodies as well. The image of insidious intention like a demon behind the back of prince Vasiliok (a dual miniature sheet 138, the other side) is not less allegorical.

In Christian art there was widespread a temptation theme, since scenes of a temptation of Eve by the Serpent, a temptation of Christ, saints, and simple people, and scenes of mystical visions as well. The given theme has found the reflection in miniatures of Radzivil's chronicle.

On a miniature concerning a narration about the Pechersky monastery, (sheet 110, the other side) vision to aged man Matvej Prozorlivyj is represented. There is an image of crowds of demons led by the leader sitting on a pig. The miniature is limited by two towers-buildings. Their ordered structure is opposed the chaotic heap of bodies. The Master has given freedom to the imagination in the images of demons with long red languages and sharp-clawed paws. In a miniature only the aged man's figure is static whereas demons are full of movement. Illusion of this movement is also created by earlier portrayals which are not coinciding with a contour that gives them the effect used by futurists in XX century. The planimetric line shivers and dances, informing the image dynamism and demonic view. Undoubtedly, this image should draw attention of the medieval reader frightening him by the form and the maintenance.

The temptation scene is presented on a dual miniature (sheet111, the other side), opening the text about a temptation of monk Isakiy. In space of this dual miniature it is narrated about demons' representation by fine young men in the form of angels and worship of Isakiy to the demon who has accepted an image of Christ. On the following miniature (sheet112) we see a consequence of this worship to the false prophet - the cell fills by demons with a psaltery, pipes and tambourines. Isakiy should dance to this accompaniment. The composition of this miniature is more ordered than on sheet 110. The master used contrast of dark background and light figures which are static except for two central in the image.

The bestiary fills up also by the image of fantastic, "fierce" animals, snakes and wild creatures.

**Conclusion.** The reflection of sacral art iconography has found in miniatures of Radzivil's annals, in despite of secular character of its maintenance.

#### Reference list:

- 1. Верман К. История искусств всех времен и народов (Европейское искусство средних веков, т. 2). М.: ООО "Издательство АСТ", 2000.
- 2. Лазука Б.А. Гісторыя Беларускага мастацтва в 2 т. Т.1. Мн.: "Беларусь", 2007.
- 3. Мень А. Радостная весть (лекции). М.: АО "Вита центр", 1992.
- 4. Радзивиловская летопись: в 2 кн./ отв. Ред. М.В. Кукушкина. СПб.: Глаголъ, 1994. Кн. 1, 2.
- 5. Тяжелов В.Н. Раннее Средневековье. М.: изд-во "Белый Город", 2006.

# THE PECULIARITIES OF THE COURSE IN BATIK FOR COMPOSITION CLASSES IN THE SENIOR CLASSES OF THE CHILDREN ART SCHOOL

### I. Lyalina

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Education is a many-sided process. It has many aspects and can be accomplished in different ways; one of them is visual art. In this article, we shall examine the educational values of one form of visual art – *batik*.

The aim – the disclosure the course in "batik" course for the formation of the artistic literacy learners and their overall aesthetic development.

**Material and methods**. The material of the study was the course in "batik" in the composition lessons in high Children Art School of Pskov. The main methods were studying and generalization of personal pedagogical experience in the field of art education.

**Results and discussion.** At the Children Art School of Pskov, batik is sorted out into a separate course within the subject "Decorative and Applied Composition". That is the reason why the batik course must comply, first of all, with the main aims and tasks of the subject "Decorative and Applied Composition".

The aim of the batik course is to form the artistic culture of the students and their general esthetical development. The tasks of the course are the following:

- to form children's ability to apprehend the beautiful in life and in art both ethically and aesthetically through giving them access to arts;
- to form children's artistic and creative activity;
- to master the figurative language of the visual art through acquiring artistic knowledge, skills and practices in "batik" techniques;

• to develop the students' creative abilities.

Arts education, involving children into the process of communication with the genuine art, contributes to developing the best aesthetical and ethical qualities of their personality. Batik plays an important role in this process.

Undoubtedly, the success of children's work on mastering new techniques – batik in our case – depends on the teacher, on his ability to teach children correctly and consistently. The creative approach of a teacher to his or her work is of fundamental importance. The work of a teacher is not limited to merely explaining the subject and checking the knowledge. The teacher must be a creative person and do his or her best to pass on all the secrets of craftsmanship to the students.

It is necessary to combine skillfully teaching techniques, such as:

•looking through the publications on the subject;

•demonstrating technical skills;

•discussion;

•using illustrative materials;

•comparison as the best way to activate thinking;

•discussing the students' works;

•children's participation in expositions and contests.

The batik course is intended for the students of the 3<sup>rd</sup> and 4<sup>th</sup> form (13-15 years old students), and during the classes the students consolidate the knowledge about the rules of composition and get acquainted with the rules of stylization which are used in the batik technique. Guided by the rules of composition, you can create works of art from very simple, but correct artworks, to harmonious pieces of art with very sophisticated ideas and techniques.

Setting the task of organizing a correct artwork, it is necessary to make it "integrated". It must be expressed in the unity of plastic solution, figurative and notional explanation of the concept, in the unity of shaping, colour and surface solution.

Batik is a kind of decorative composition and it has its own fabric stylistics. It is very important to find the borderline between the realism and the fabric stylistics when painting landscape, still life, genre scenes etc.

Batik has a wide field of activity, from the realism, where it competes with painting and graphic, to the ornament, where it becomes fabric. The modern batik has acquired the peculiarities and artistic methods of several techniques: aquarelle, pastel, graphic, stained glass, mosaic. It is an endless experiment and search.

However, regardless of the subject of the composition, everything is made according to the laws of fabric graphic:

- planar solution;

- absence of fore- or background;

- combination of ornaments and decorative painting;

- combination of graphic spot and line.

Important problems of children's perception are solved during the composition lessons within the batik course, dedicated to such topics, as "A tale of the times of old" (dedicated to the 1150<sup>th</sup> anniversary of Izborsk), "The heritage of the Russian State", "Reflections about Pskov", etc. While making artworks on such topics, we introduce a regional aspect into the school course and promote the patriotic education of the students.

For example, while working on the topic "Reflections about Pskov", the approach to this topic must be wide: it shouldn't be just a composition depicting the city architecture, but it should be a "moody" composition, for example, sad ("The Rain in Pskov"), solemn ("The Sirin Bird Guarding Pskov"), hilarious ("A merry stroll through the city"), etc. it is also important to support the mood of the artwork by the appropriate selection of colours.

**Conclusion.** Thus, one of the types of visual art -batik -can be considered as an effective means of ethical and aesthetical education of children.

#### Reference list:

- 1. Davydov S.G. Batik. Technology, techniques, product / S.G. Davydov. Moscow, 2006.
- 2. Logvinenko G.M. Decorative composition / G.M. Logvinenko. Moscow, 2006.
- 3. Mironova L.N. The color in the visual arts / L.N. Mironov. Minsk: Belarus 2005.
- Stoke S. Batic. The modern approach to the traditional art of painting fabrics / S. Stoke. – Moscow, 2005.
- 5. Earl K. Silk painting. Basics skills / K. Earle. Moscow, 2005.

# THE FORMATION AND THE DEVELOPMENT OF ICONIC IMAGE IN WORKS OF THE MODERN MONUMENTAL TEMPLE PAINTING OF VITEBSK

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The systematic comprehension of the experience of Vitebsk's iconpainting of the end XX century isn't exist as a specific structuring of these process nowadays. Exploring of the main trends of icon-paintings and novation of iconography formed the concept of iconic image in the modern art are the most important for understanding the modern art culture and iconpainting, as part of it. Icon-painting traditions in Vitebsk have resumed during the 1990. The need arises in icon-painters, who know a technique and the rules of iconography and, what is important, not only theoretically but and on working because of lack of professional personnel. The acute question raises: what is iconic image in conditions of the modern culture? [1, p. 21–22] The assignment of the article is detection of main development features of the church fresco in Vitebsk's churches of the 1990–2015 ages.

Material and methods. In research have used complex of methods of the modern art history, and also iconological, iconographic and theological methods of research, that have aimed at theoretical, theological, historical and artistic comprehension of the main trends of development of the monumental temple painting in Vitebsk in the 1990-2015 ages. Sources of the research were been systems of monumental temples paintings, that belong Vitebsk's churches, sketch and preparatory material, which placed in the workshops of icon-painters, and also scientific works (monographs, collections of articles, materials of conferences and round tables, dissertation abstracts, and etc.), that appropriate of topic of this research (the theory and the history of origins iconic image, aesthetic foundations of orthodox iconpainting, the image of theology, iconography, the modern icon-painting art). Web-portals, which explain events of art, cultural and church's life of Belarus, that represent the work of leading modern icon-painters, official web-sites of icon-painting schools, workshops, associations and personal web-sites of icon-painters. [2, p. 16]

**Results and discussion.** The development of the icon-painting and the formation of iconic image in church's art are connected with period of "The church's renaissance". Works that aimed at rebuilt and reconstruction of destroyed and damaged old churches have important influence on the formation and the development of modern church's art in Vitebsk since the 1990s.

In result group of rebuilt churches work in Vitebsk nowadays such as Pokrovsky Cathedral, Church of the Annunciation, the Holy Church of the Resurrection, the Holy Dormition Cathedral. Also Church of St. Reverend Euphrosyne of Polotsk, the church of St. Luke the Apostle and the Church of St. Tikhon of Zadonsk and others have rebuilt among a residential and industrial buildings. Nowadays 7 churches have rebuilt besides. Among them Church of St. Alexander Nevsky Cathedral, the Church of St. Andrew the Apostle, the church of St. George, the church of Mother of God "Healer", the temple of the Holy Martyr Tatiana Church of the Nativity, the Temple of St. Vasiliy the Great, and etc have rebuilt.

The orthodox iconic image is important nowadays, because it has own principled tradition. Nevertheless, it traditionary become a subject of deep comprehension. The efforts of many icon-painters aimed at connect of boundless spiritual potential of an icon in their work with a new understanding of the eternal moral values. [3, p. 57-59]

The current stage of development of icon-painting in Vitebsk described as the process of searching for it visual language that connect the traditional canonical requirements and also new aesthetic ideas. These searches are striving to understand icon-painting not only as an integral expression of the orthodox world with the help of an artistic image, the phenomenon of old Russian culture, which got a new recognition to the XX century, but also as a modern art-aesthetic phenomenon. [4, p. 13–14]

Considering the works of Vitebsk icon-painters, we can identify some characteristics of their style, the character of performance, coloristic, composite decision, and also the general attitude towards to iconic image. Icon-painters of Vitebsk have done significant work on the improvement of the town's temples during period of research. This work has continued for a long time and allows to improve the technique for icon-painters of Vitebsk, performance icons and frescoes, as well as to produce and to develop their own style of iconography, to grow in the spiritual and creative beginning.

During the analysis of modern of icon painting of Vitebsk on the material of the iconographic art of Vitebsk masters of icon painting have identified their major technological features that correspond to the technique of execution of monumental frescoes of the leading Belarusian and Russian icon-painting workshops.

**Conclusion.** Thus, icon-painting of Vitebsk develops steadily and dynamically at that moment. A variety of the temple murals and iconostasis have made by icon-painters, images of icon-painting have painted for the existing churches's interiors and for household use. The works have carried not only on ancient samples, but also have created a new iconography for newly glorified saints. Icon-painters of Vitebsk have studied and have rethink the masterworks of old Russian and Byzantine icon-painting. At the same time take into account the experience of the modern Russian masters of the icon. Exactly in these streams develop modern icon-painting of Vitebsk.

#### Reference list:

- 1. Alexeev, S. Encyclopedia of Orthodox icons. Basics of theology of icon / S. Alexeev. Saint-Petersburg.: CATИCЪ, 2001. p. 21–22.
- Belting, H. The image and the cult. The history of the image before the era of art. / H. Belting. – Moscow., 2002. – P. 16.
- Vagner, G. Canon and style in the old Russian art. / G. Vagner. Moscow, 1987. P. 57–59
- Davidova, M. Essays of early Christian art. The program of mural in the church / M. Davidova. – Saint-Petersburg, 2003. – P. 13–14.

# THE EFFECTIVE METHODS OF TEACHING GRAPHIC DISCIPLINES

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Education is constantly being reformed in modern society. The purpose of these innovations - is to regulate and enroot innovative achievements, to stabilize the development of the educational system, to increase the

developing potential. But in fact, the modernization of education after reforming faces many challenges. One of them consists in the fact that the new methodological tools often borrowed from other spheres of human activity or have come to us from other countries, and are not suited to our system of learning, which in turn leads to a lack of efficiency.

The number of classroom hours to study educational material, both lecture and practical, is reduced from year to year because of variety of communication tools implemented in the education system. But at the same time there is not developed a clear methodical toolkit that take into account the volume growth of material for self-study and is adapted for student's effective self-education, which ultimately affects the decrease in the effectiveness of training.

The aim of this study is to identify effective methods of teaching graphic disciplines in the conditions of reforming of modern education.

**Material and methods**. For the successful introduction and use of new methodological tools, developed by using information technology (presentations, multimedia lectures, electronic educational complex, etc.), the teacher-developer must take into account many factors:

- the selection and structuring of educational information;

- simplicity and attractiveness of teaching material;

- development of sketches graphic illustrations and problem-solving algorithms;

- preparation of materials for self-study and in-depth study.

That's why the teaching staff receives a new task to help students, especially freshmen, which faced with a large volume of completely new and not comprehensible information – to prepare a methodological material that teaches to perceive the learning material through self-education (within the independent work on the study of lecture material, the preparation for current and final control, the execution of settlement and graphic works, etc.)

**Results and discussion.** There are several questions in teaching graphic disciplines. Methods of teaching graphic disciplines, developed to perfection for decades, are ineffective in the changed circumstances of modern education. Since training programs shorten every year, hours are also reduced, despite the fact that the development of this discipline requires a large number of classroom hours. At the same time for project-construction activity is necessary to know basics of geometric constructions, be able to clearly and quickly accept and reproduce the image information drawn by a manually or by computer graphics, as well as to have the skills of spatial thinking.

Educational material under the specificity of graphic disciplines should be presented as follows:

- multimedia presentations-lectures with colorful and illustrative examples of their practical application in life, hands-on material with

stepwise solution of basic problems and tasks, considered at student conferences;

- tasks of high complexity used as the Olympiad tasks;

- demonstration of stepwise execution of calculation-graphic tasks performed by hand and with the help of computer graphics.

Typical examples are used for the preparation for both the current control of knowledge within the same theme and the final control of knowledge.

However, new methods of teaching graphic disciplines do not fully solve this problem, as interest is an important component of student selfeducation. So it should refer to the traditional methods of teaching.

«Business game» is an interesting and important example of the traditional method of teaching graphic disciplines. Conversion of practical tasks in game form by connecting with the professional orientation will greatly enhance the interest in the performance of tasks and stimulate students to the self-study. Options for the «business game» are as follows: the announced tender; design office; an urgent meeting.

Training while using «Business game» will help shape the professional competence, which consists in the following: general knowledge of the profession including initial skills; the ability to work in a team; the ability to self-criticism; the systemic application of acquired knowledge in practice; the ability to create new ideas or to adapt to new situations.

**Conclusion.** All this means that it is possible to switch from the usual knowledge transfer to learning, that allows to develop student interest, taking into account an individual approach; to develop creative abilities to research and participation in student conferences, as well to develop professional competence.

# THEORETICAL AND METHODOLOGICAL PROBLEMS OF CREATING OF LEGAL CULTURE FOR YOUNG PEOPLE AT THE PRESENT STAGE

### LEGAL REGULATION OF INTEGRATION PROCESSES IN EAEC

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It can be a positive attempt to characterize the transition to a new stage of integration – the Eurasian Economic Union – to bring together all existing disparate acts and adopt a single memorandum of association with a number of applications – the Treaty on the Eurasian Economic Union (hereinafter – DEAES).

The aim of this work – explore the legal regulation integration processes in EAES.

Timeliness of the topic lies in the EAEC serves as the new direction of the integration of the States Parties, established to promote cooperation, strengthening economies and improving the competitiveness of the EAEC member-countries in the world market. The integration of the participating countries will allow the EAEC by combining the efforts of the States concerned, to achieve greater economic success in each of the Contracting States, to strengthen and boost the scale of market for each member state, as well as to make each of the participants competitive on the world stage.

**Material and methods.** The material of our study was the agreement on the EAEC. The methodological basis of the study of the dialectical method of knowledge of legal phenomena, allowing open their integrity and system. In addition, the study used: logical method, system analysis, simulation method, and others.

**Results and discussion.** It should be noted that at the same time, DEAES leaves little room legal continuity: the contract no references to previous stages of integration. Earlier in the documents of the Customs Union (hereinafter - TC), the Eurasian Economic Community has always been a reference to some previous documents on the construction of the integration space. EAEC is created as a new stage, stage of development of integration, however, formally almost not connected with the previous stages of integration.

It should be noted, and quite a fast process of ratification in the states – participants of the EAEC: May 29, 2014 DEAES was signed, and by October 9 They all three states have ratified it on October 10 joined by a single state, and a little later: January 2, 2015 entered Kyrgyzstan, This shows the political wills of the parties consolidation, high degree of readiness for the

integration process. It is, however, a relatively small number of contracting states.

The third positive feature is an attempt to offer in DEAES (Art. 6, first of all) the list and kind of hierarchy of sources of law of the Union. To date, the system EAEC sources as follows:

1) of the EAEC Treaty;

2) international treaties within the Union - that is, among States Parties;

3) international agreements with third parties (states and international organizations);

4) decisions and orders of the Supreme Eurasian Economic Council;

5) decisions and orders of the Eurasian Intergovernmental Council;

6) decisions and orders of the Eurasian Economic Commission (hereinafter – EEC). More to the right of the EAEC Treaty does not carry any sources.

Few should be said about the order of the acts directly applicable at the national level. ECE Solutions, worsening the situation of natural persons, legal entities, have no retroactive effect. ECE Solutions uluchayuschie status of individuals and legal entities shall be retroactive if it is expressly provided for in them.

Based on the above, it can be concluded that the rules of law in the framework of the EAEC often not that is not perfect, and sometimes even contradict each other. There is an urgent need to eliminate the contradictions standards. In the case of all the differences, their removal and the establishment of a single regulatory and legal framework can be a successful work of the Union and its perfection.

There is an urgent need for harmonization of tax and customs legislation, which are directly linked.

Thus, the increased relevance of the theme of unification of the national tax legislation follows already from the most extraordinary fact that such a high level of international agreement, as is the Treaty on the Eurasian Economic Union on May 29, 2014 (hereinafter – the Agreement on the EAEC) [1] was a place legal norms the tax system and they are levied.

Requires continuous monitoring, including even the exchange of bills, it has not turned so that the laws of the countries of the Eurasian Economic Union diverges or is parallel courses. In the transitional period until 2025 is necessary to implement the harmonization of the national legislations. Only in this case it will be seen a synergistic effect.

One of the most important conditions for the development of integration processes of the EAEC is to carry out a coordinated fiscal policies of member countries, suggesting the creation of a single market for goods, services, capital and labor [1]. As the basis for the EAEC tax policy is the formation of a single fiscal space, priorities are the convergence of tax legislation and tax administration mechanisms.

Approximation of national laws is the essential process of formation of any integration association. The agreement on the establishment of the EAEC on 29 May 2014 stated that «harmonization of legislation» – the approximation of legislation of Member States, aimed at establishing a similar legal regulation in some areas, as well as important is the concept of «unification law» – the approximation of legislation of the Member States aimed at establishing identical mechanisms of legal regulation in some areas. In spite of the legal requirement of the contract, in practice, national legislation EAEC countries are undergoing a mismatch. Even despite the fact that the treaty has entered into force, it is necessary to take a number of bills that will ensure the development of the contract [2, p. 65].

Among the main ways to harmonize the offer are as follows:

- unification of terminology;
- harmonization of methods of formation of the tax base;
- consideration of the question of harmonization of tax rates;
- develop a unified approach to the taxation of non-residents.

Thus, the aim of further harmonization - as much as possible to bring together the formation of methodology of annual income, the list of expenses (deductions) and tax rates in order to create a single legal space and equal conditions for economic activity in the territory of the EEA countries.

It should be noted that despite the adoption of a treaty on the Eurasian Economic Union, there is a realization of the ineffectiveness of the laws of correlation. Please note that the EAEC was established a year ago, and the process of harmonization and unification of legislation in the beginning is always accompanied by differences on various issues.

**Conclusion.** Consequently, the process should be speeded up, monitoring and examination of how the unification of national legislation, to carry out a number of bills that would develop the contract. Countries in this period must constantly hold joint meetings on the harmonization of legislation. In the area of public-private partnerships, each country has its shortcomings, but the potential still remains. The concrete and effective steps should accelerate the process of harmonization of national legislations, if countries act together on this issue.

#### Reference list:

- 1. The Treaty on the Eurasian Economic Union of 29 May, 2014. Minsk: Amalhteia, 2015. 688 p.
- Kurbanov, RA Eurasian Law: the processes of formation / RA Kurbanov // State and right. 2015. № 9. – S. 65.

# LEGAL DISCOURSE AND ITS SPECIFICITY IN THE BELARUSIAN AND US CRIMINAL CODE

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Timeliness of the theme is due to objective factors, one of which is the need for further development of the problem of studying the legal discourse to increase the law education of citizens, and address their law illiteracy. Firstly, it requires social restructuring of society and the construction of civil society. The social state is the state where citizens know and exercise exactly their rights and responsibilities. The process of approval of new value orientations in society, humanitarian values lead to linguistic innovation in language. Any law enforcement is inseparably attached to the interpretation of laws and interpretations. That's why these aspects are widely used in modern jurisprudence.

Issues of the formation and interpretation of the legal discourse studies just as philologists (A. Soboleva 2007; M. Borovkova 2000; D. Stone 2004; T. Viehweg 2007; M. Shirinkina 2000) and lawyers (V. Kartashev 2006; Y. Tkachenko 2001; A. Cherdantsev 2003) [222]. In these works metalinguistic aspects of innovation is interpreted from abstract theoretical structures to practical application in objective human world. At the same time there are many unresolved questions. The results of the legal discourse are not generalized and are not systematized.

The aim of the research is devoted to peculiarities of pragmatic and semantic status of legal discourse in terms of its interpretation in American and Belarusian Criminal Code. The interest in this issue is dictated by the changes in society in recent decades.

**Material and methods.** While writing this work we have used methods to study literature on this theme and its critical analysis, considering works such authors as L. Kolesnikova, O. Krapivkina and L. Popova. Also we compared the Belarusian and US Criminal Codes as linguistic point of view.

**Results and discussion.** In modern linguistics discourse is a complex phenomenon, which includes description and analysis of a communication situation, role and functions of the participants of communication and the text itself [222]. That is to say the discourse is presented by texts as a description of structural and semantic features which are implemented in specific texts. An example of a discourse can be the number of the statements of any literary character. In this case it is a model of a real linguistic identity. We also consider the legal discourse. Its implementation is a whole complex of Russian and English legal wording. As is well known, the right is "a set of established and protected by the state authority rules and regulations that

govern people's relationships in society as well as the science that studies these rules" [2].

Language of law as well as other vernaculars is rather different from the common use of language. It has its own lexical and grammatical features. They include a lot of judicial documents with law vocabulary. Legal definitions are the major part of this vocabulary. Also they include special idioms and idiomatic combinations, which are not used or rarely used in the common language (bailiff, to challenge the complaint, the defendant, the plaintiff and others) [6].

If documents deal with general and administrative issues forms of official style in judicial documents is necessary for accuracy and completely understanding and interpretation: Hereby certify..., the use of verbs in passive voice, e.g., the court is imposed a sentence on somebody (instead of the court impose a sentence on somebody).

Judicial documents' texts are the bulk of legal discourse. In this case, the text itself has not only the function to inform and influence, but also reveals social and pragmatic author's position. On the one hand, participants of the legal discourse are the author, on the other, an addressee and recipient. If the first one creates some informational message, expressing the essence of the legal discourse, then the second takes and interprets this message [5].

Judicial text reflects the special law-term system. These terms perform cognitive information. But often the range of use is beyond the scope of the judicial text. Not only lawyers, but literate native speakers know it. Law-terms have the same characteristics as any terms: uniqueness, lack of emotional coloration, regardless of the context, e.g.: a sentence, defense, an offence, justice, an offender, bring a verdict of not guilty, etc. [222].

The use of foreign Latin words relate to the judicial text's peculiarities: "means rea" offender guilt; "de jure" legally; "de facto" practically, etc.; initials: CPC – Criminal Procedure Code; Registry office – registration of acts of civil status. Presence of a large number of terms of eponymy in the Anglo-American law is an embodied character of the rights in case law. These terms denote laws, legal doctrines and criminal cases. Also they are basis for changing US Constitution: Monroe doctrine, the Sherman's Act, etc. [7].

In recent years, the language of criminal legal texts has absorbed various collective terms. They reflect the essence and process of expression abuses at different offences, thefts, which are cover crime methods. Such terms describe a generalize method of theft as seizure, illegal possession and acquire of property, etc.

**Conclusion.** Semantic and pragmatic status of the legal discourse is confirmed by the judicial documents and meta-language law. The legal discourse is focused on all levels of society. It is one of the most important modern discourses.

By comparing the Criminal Code of Belarus and America we can make the following conclusion. The Code of America is divided into 52 titles, which deal with broad, logically organized areas of legislation. All titles have sections (Section 15 – Commerce and Trade, Section 17 – Copyright, Section 35 – Patents, etc.), as their basic coherent units, and sections are numbered sequentially across the entire title without regard to the previously-mentioned divisions of titles. Sections are often divided into (from largest to smallest) subsections, paragraphs, subparagraphs, clauses, subclauses, items, and subitems. Congress, by convention, names a particular subdivision of a section according to its largest element. The "Section" division is the core organizational component of the Code, and the "Title" division is always the largest division of the Code. Which intermediate levels between Title and Section appear, if any, varies from Title to Title. E.g., Title 38 (Veteran's Benefits) the order runs Title – Part – Chapter – Subchapter – Section [1].

The analysis of the structure of the Criminal Code of the Republic of Belarus has shown that it is included two parts ("General Part" and "Special part"). Each part has its own sections, aimed at a specific industry (e.g.: Section 3 - "Criminal Liability", Section 7 - "Crimes against the person", etc.). Sections are made up of chapters. They are divided into articles. The latest Code Review was realized in October, 2009 [4].

#### Reference list:

- 1. Legal discourse [Electronic resource]. Mode of access: <u>https://domashke.net/referati/topiki-po-anglijskomu-yazyku/kursovaya-rabota-</u> yuridicheskij-diskurs. – Date of access: 30.10.2016.
- United States Code [Electronic resource]. Mode of access: <u>https://ru.wikipedia.org/wiki/Кодекс Соединённых Штатов Америки</u>. Date of access: 29.10.2016.
- Колесникова, Л.В. Юридический дискурс как результат категоризации и концептуализации действительности: на материале предметнотерминологической области [Kolesnikova L.V. Yuridicheskiy diskurs kak rezultat kategorizastii i kontseptualizatsii deystvitelnosti: na materiale predmetnoterminologicheskoy oblasti]: автореф. дис. ... кан. филол. наук: 10.02.19 / Л.В. Колесникова; Ставр. гос. унив. – Ставрополь, 2007. – 8 с.
- Крапивкина, О.А. Юридический дискурс: понятие, функции, свойства [Krapivkina O.A. Yuridicheskiy diskurs: ponyatiye, funktsii, svoystva] / О.А. Крапивкина // Науч.-практ. журн. Гуман. науч. исл-я, 2014 – № 9. – 12 с.
- Национальный Интернет-портал Республики Беларусь [Natsionalny Internetportal Respubliki Belarus] [Electronic resource] / Нац. центр правовой информ. Респ. Беларусь. – Минск, 2005. – Mode of access: http://www.pravo.by. – Date of access: 25.10.2016.
- 6. Попова, Л.Е. Юридический дискурс как объект интерпретаций [Popova L.E. Yuridicheskiy diskurs kak obekt interpretatsiy]: автореф. дис. ... кан. филол. наук:10.02.19 / Л.Е. Попова; Куб. гос. унив. Краснодар, 2005. 26 с.
- Юридический дискурс: лингвопрагматика имени собственного [Yuridicheskiy diskurs: lingvopragmatika imeni sobstvennogo] [Electronic recourse]. – Mode of access: <u>http://cyberleninka.ru/article/n/yuridicheskiy-diskurs-lingvopragmatika-imenisobstvennogo</u>. – Date of access: 30.10.2016.

# A LAWYER'S PERSONALITY AND ITS TRANSFORMATION IN J. GRISHAM'S NOVEL "THE STREET LAWYER"

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A lawyer's personality is a subjective source of professional legal services. The lawyer's personality issue is a complex, controversial and sophisticated set of questions on what features and qualities of the individual lawyer are necessary or desirable, which are undesirable, which are irrelevant, and how society has the right to influence a lawyer's personality. A lawyer's personality is defined as an individual who has received special training and performs professional legal activity, spending their physical and mental efforts, their time, experiencing success and failure, pursuing certain goals. This reveals the qualitative and social characteristics of the lawyer's personality. This complex, or mixture, of character traits, qualities and properties typical of the person is in this or that way reflected in their professional activity, while on- and off-duty. Top professionals, regardless of their specific area, form the group of people with special skills and motivation. This fully applies to the legal personality.

The aim of the study is to reveal the social, psychological and other factors that influence a lawyer's personality. The issue is particularly relevant for law students as it helps them better understand themselves, their morals and career aspirations.

**Material and methods.** The research is based on John Grisham's novel *The Street Lawyer*. The methods employed include the legal norms interpretation method, legal psychology method, legal sociological method as well as general text analysis methods.

**Results and discussion.** The Street Lawyer (1998) is a legal thriller by an American writer John Grisham. The protagonist, Michael Brock – a wealthy lawyer at Drake & Sweeney, a large law firm – is taken hostage in his office. The offender is a homeless person, who had been dispossessed of the warehouse which he tried to make his home. The police release the hostage, but this experience makes Brock reappraise his career and life mission. He used to be fully satisfied with everything: stable schedule, lots of working hours and money, his wife, who was career oriented as well, the partnership prospects. His personality was subdues by the system and this was due to the specific nature of the legal profession: lawyers stand up for other people's property interests and have to keep proving their loyalty to corporate principles. They dreamt of benefiting the free and fair America, but ended up serving the people who pay for their time.

I was expected to bill twenty-five hundred hours a year. That's fifty hours a week, fifty weeks a year. My average billing rate was three hundred dollars an hour, so I would gross for my beloved firm a total of seven hundred and fifty thousand dollars. They paid me a hundred and twenty thousand of this, plus another thirty for benefits, and assigned two hundred thousand to overhead. The partners kept the rest, divided annually by some horrendously complex formula that usually caused fistfights.

It was rare for one of our partners to earn less than a million a year, and some earned over two. And once I became a partner, I would be a partner for life. So if I made it when I was thirty-five, which happened to be the fast track I was on, then I could expect thirty years of glorious earnings and immense wealth [1].

This «legal existential crisis» is combined with the supposed illegality of the dispossession of the homeless, which caused the hostage and other tragedies. Having left the firm, Broke becomes a «street lawyer», taking the cases of the homeless and at the same time trying to clarify circumstances of the dispossession. This was partly due to meeting Mordecai Green, a lawyer devoted to serving the interests of the homeless. His motto «*I'm a human first, then a lawyer*» impresses Michael greatly and totally reverses his outlook.

Mordecai Green was a warm, caring man who labored on the streets protecting hordes of nameless clients. His view of the law required more soul than I could ever master [1].

Notwithstanding the evident ambiguity of the poverty issue and its solutions, the author consistently supports social redistribution, depriving the rich of their money and giving it to the poor. To help the poor the narrator even commits a crime, stealing a confidential file from the office, and thus risks losing his lawyer's licence, which does not affect the author's sympathy to him.

"They're gonna come after you, Michael," he said, still looking at the radiator, but not seeing.

"They? You mean we?"

"Right. The firm. You can't steal a file. Think about the client. The client has a right to expect confidentiality. If a file walks out, the firm has no choice but to go after it."

'Criminal charges?"

"Probably. They're mad as hell, Michael. You can't blame them. There's also talk of a disciplinary action with the bar association. An injunction is likely. Rafter is already working on it." [1]

Having left the law firm, the lawyer initiates a notable case against his former employer. First and foremost he needs not pecuniary but moral compensation, influence on the public opinion, a precedent that will form the base for similar court decisions in the future.

He would never consider a pretrial settlement, absent my involvement. Mordecai wanted a trial, an enormous, noisy production with lights and cameras and printed words focused not on him, but on the declining plight of his people. Trials are not always about individual wrongs; they are sometimes used as pulpits [1].

In the novel J. Grisham raises the issue of oversized fees in this or that way touched upon in most his works. Michael Brock dwells upon the highflown and noble were the dreams of his and his fellow students when they were just starting their career in law and how all of them ended up moneyridden. The plot is centred on a knot of corporate affairs, where the protagonist starts as an ambitious law school graduate employed by his dream company and in the end is totally disappointed with the ideals of the wealthy.

"There's more to being a lawyer than billing hours and making money. Why do we want to become corporate whores? I'm tired of it, Barry. I want to make a difference."

"You sound like a first-year law student."

"Exactly. We got into this business because we thought the law was a higher calling. We could fight injustice and social ills, and do all sorts of great things because we were lawyers. We were idealistic once. Why can't we do it again?" [1]

However, while the characters of other J. Grisham's novels disclose government conspiracies and criminal plans of the big business, Michael Brock from «The Street Lawyer» starts from changing his own life. Michael Brock's transformation from a corporate to a street lawyer drastically shifts the accents and is irreversible. The central concept of J. Grisham's novels about court professionals is disappointment in legal conventions and justice and attempts to rethink their place in it.

**Conclusion.** J. Grisham's novel «The Street Lawyer» makes us consider the moral and ethical issues of law. Besides, the book presents a vivid picture of the modern USA, showing the reader life in asylums, the underprivileged in the city, social issues. Thus, the novel is particularly interesting to law students helping them not only enrich their vocabulary, but also enhance their knowledge of crime prevention techniques and professional skills. Of special importance is the fact that the novel is based on the material well-known to the author as a practising lawyer.

### Reference list:

 Grisham, J. The Street Lawyer // RoyalLib.com [Electronic resource]. – RoyalLib.Com, 2010-2016.. – Mode of access : http://royallib.com/book/Grisham\_John/The\_Street\_Lawyer.html. – Date of access: 12.02.2016.

## PROSPECTS AND ADVANTAGES OF DEVELOPMENT OF LOGISTIC ACTIVITY IN REPUBLIC OF BELARUS

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About what is logistics as to develop it, and, above all as to earn to the country in the center of Europe on it, the Belarusian officials, experts, scientists discuss not one year. Pessimists claim what further a talk put especially and did not promote, and optimists are sure: not with great strides, of course, but the situation changes for the better.

The purpose of my research work is disclosure of prospects and advantages of development of logistic activity in Republic of Belarus, and also the statement of the offers on this occasion.

Relevance of the subject chosen by me is that Republic of Belarus possesses a unique geographical location as through its territory there pass the major trade ways connecting Europe to Russia and the CIS countries. For us it is extremely important to construct self-sufficient, strong and steady logistic system not only at the republican level, but also on international to profit in the state treasury of Republic of Belarus, due to providing with all types of service and service of subjects of economic legal relationship.

**Material and methods.** In work were applied work of such author as Zhuravlev V. A. and the scientific article Vezhnovets S. N., and also such methods as analytical, structural, a method of deduction, synthesis and analysis were used.

**Results and discussions.** Advantage of development of our logistic system consists in readiness for difficulties in creation of national logistic system, however It should be noted that it is necessary to find such shots, professional shots which will be able to carry out monitoring not only the previous experience, but also in the mode of non-feet to carry out the analysis of the economic processes happening in the world. And, proceeding from these data to give timely, and, above all qualitative recommendations or instructions about development of logistics in Republic of Belarus.

Republic of Belarus has the developed modern infrastructure. The territorial arrangement, namely in the center of Europe, allows to increase a possibility of implementation of different types of transit of goods through the territory of the republic and as in the direction the North-South, the South-North, and the East-West, the West-East, thereby I increase the income from it [1, p. 69].

The basis of logistic activity and logistics is put in general by regulations, and also other acts establishing an order of activity and function of these or those logistic centers. Here it is worth paying tribute to the state, Republic of Belarus, for the fact that it actively enters state standards which regulate and improve logistic activity, its principles and the main ways of the direction, and also the program which establish the general tendency of development and improvement of logistics in Republic of Belarus.

Belarus the first among the countries neighbors across the CIS took the initiative of adoption of the similar law.

Noting features of development of logistic system in Republic of Belarus it should be noted types of the created logistic centers:

- transport and logistic centers;

- wholesale and logistic centers;

- multipurpose logistic centers.

Modern logistic infrastructure plans to grow further due to input, both warehouse objects, and new warehouse spaces of logistic providers and developers. By the end of this year it is planned to increase the total area of warehouses of a class "A" and "B" by 52 thousand sq.m.

On the basis of the operating airport in Minsk (The national airport Minsk) the Belgian company AOI NV constructed the transport and logistic center, having combined efforts with Chinese who built nearby Chinese-Belarusian industrial park [2, p. 6].

In my opinion, it is necessary to create such logistic objects on everyone acting the airport in our country, at least, whenever possible as it, for certain, will promote increase in commodity turnover and quantity of passable goods through these logistic objects.

If to consider the prospects of development on concrete examples, then it should be noted the investment project "IPL Orsha Park". The main idea of the investment project is creation in the territory of SEZ "Vitebsk" in the item of Bolbasovo (Orshansky district, the Vitebsk region) of the production and logistic complex "IPL Orsha Park"

The land area allocated under this project makes 25 hectares. In a final stage of implementation of the project the total area of building will make 123000 sq.m.

The geographical arrangement of Republic of Belarus opens a number of opportunities for realization of the advantages which are available for the country in implementation of international transport of freights and (or) creation of the centers which are carrying out the international movement of goods, etc. Development of opportunities, of course, is caused by the happening structural shifts in world economy, reorientation of structure of export, increase in a role of progressive forms and methods of cargo delivery to consumers, and also trade volumes.

And in development of logistic system of Republic of Belarus, this fact has to be the main justification in order that the state, the Belarusian and foreign investors, without any caution invested money in various investment projects.

It is proved by that, this branch is very perspective and in our country it just begins the way of development, and the invested money for certain "will beat off with interest".

Republic of Belarus, in too time, is in the middle of "A silk way". On the one hand Republic of Belarus is a window to Europe, and with another – attraction of the European capitals and technologies to the east. According to forecasts of analysts, this fact will increase transit freght traffic through the territory of Republic of Belarus approximately twice.

Are engaged in studying of economic capacity of Belarus in Academy of social sciences of China. There drew a conclusion that Belarus is the ideal platform for investments, proceeding from three components: advantageous geographical location, good business climate and professional shots.

**Conclusion.** It would be desirable to tell that for productive functioning of transport system within logistic processes in Republic of Belarus, transport has to meet a number of requirements: flexibility, an around-the-cock of deliveries to all regions of Republic of Belarus; reliability; ability to adapt to constantly changing inquiries of consumers and customers, etc.

For this purpose, in my opinion, it is necessary to increase commodity turnover, first of all, with the countries of Europe as, creation of the friendly political relations with a number of the states of Europe, will entail for itself strengthening of the economic relations, increase in commodity turnover, both export production, and import that, for certain, will improve an economic situation of the state in general, and certain citizens in particular.

And secondly, to pay special attention to automobile transportations of goods as, in comparison with the same, rail transportation, the first is more flexible, fast and mobile that strengthening of the state economy cannot but affect growth of trade capacity of the country and in a consequence.

#### Reference list:

- 1. Zhuravlev, V.A. Fundamentals of logistics: abstract of lectures / V.A. Zhuravlev. Minsk: Right and economy, 2010. 164 p.
- Vezhnovets, S. N. Logistic branch: figures and facts / S. N. Vezhnovets // Customs messenger. – 2015. – №. 8. – Р. 6.

## THE ROLE OF THE PROSECUTOR AT THE CONCLUSION OF THE PRE-TRIAL AGREEMENT ON COOPERATION

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Currently, the main provisions of the pre-trial agreement on cooperation are concentrated in a special chapter 491 of the Criminal Procedure Code of the Republic of Belarus (hereinafter – the Code of Criminal Procedure), which includes art.art. $468^{5}$ - $468^{12}$ .

In turn, the study of chapter  $49^1$  of the Code of Criminal Procedure rules leads to the conclusion that the key figure in custody pre-trial agreement

on cooperation and control over its execution is a public prosecutor, in view of the actual consideration is allocated the role of the prosecutor in the process described above.

In view of this, the purpose of the study – the study of certain provisions of the Criminal Procedure Code, and they contain gaps and ways to address them.

**Material and methods.** During the work were applied general scientific dialectical method of knowledge and special techniques: formal-legal, logical. In addition, the basic material and source for writing the work was the Code of Criminal Procedure.

**Results and discussion.** Analyzing the content of the chapter  $49^1$  of the Code of Criminal Procedure, pay attention to some of the steps to enter into pre-trial agreement on cooperation, as well as the role and powers of the prosecutor in them.

In accordance with p.p. 6-7 art.art. 468<sup>6</sup> of the Code of Criminal Procedure application for the conclusion of the pre-trial agreement on cooperation served the suspect (defendant) or his lawyer to the prosecutor by the investigator. Investigator within three days of receipt of a request for pre-trial detention of a cooperation agreement sends a request to the prosecutor indicated, together with a statement about the possibility or impossibility to enter into with the suspect (accused) of pre-trial agreement on cooperation [1].

Thus, the Code of Criminal Procedure provides for a two-step application procedure for a request for pre-trial detention of a cooperation agreement.

"The first link" in this case acts as an investigator, who, after receiving a petition of the suspect (the accused), is obliged to make the inquiry on whether it should meet.

"The second element" appears the prosecutor, who decides on the request of the suspect (the accused). At the same time from the literal sense art.art.468<sup>5</sup>, 468<sup>6</sup> it is not possible to determine what kind of official prosecutors have the right to resolve the issue.

In this connection, it seems appropriate to clarify the provisions of Articles  $468^5$ , Code of Criminal Procedure  $468^6$ , indicating that the application is submitted to the head of the body the name of the prosecutor's office or his deputy.

After reviewing the request of the prosecutor or his deputy shall take one of the following solutions:

1) approve the application on the conclusion of the pre-trial agreement on cooperation, which is compiled on the basis of the above agreement;

2) to dismiss the application for the conclusion of the pre-trial agreement on cooperation, which is make a decision.

Decree of the prosecutor or his deputy, to dismiss the application for pre-trial detention of a cooperation agreement cannot be appealed. [1]

Thus, the legislator gives the prosecutor or his deputy, the right and at the same time obliges them to finally resolve the issue of pre-trial detention of a cooperation agreement.

In this case it appears that the two decisions provided for by the Criminal Procedure Code the prosecutor is not enough options for a final solution of this issue. Thus, a situation may arise when the criminal case materials available is not sufficient to objectively assess the intentions of the accused and the possibility of assistance. In this regard, when assessing the obligations specified in the petition, prosecutors should pay attention to the possibility of their actual execution, if necessary, request additional information from the initiators of the appeal, as well as to analyze the prospects of cooperation with law enforcement agencies that person.

**Conclusion.** Thus, the results of the study show that it is the public prosecutor provides the necessary conditions for the application of a special order of chapter  $49^1$  of the Criminal Procedure Code, to monitor the implementation of its special pre-trial provisions and achieve the ultimate objectives of the criminal process at all stages of production of a special order in a criminal case.

#### Reference list:

Criminal Procedure Code of the Republic of Belarus [electronic resource]: July 16, 1999, № 295-W: adopted by the House of Representatives June 24, 1999: approved by the Council of 30 June 1999: as amended. Act of 20.04.2016, the // Etalon. Legislation of the Republic of Belarus / National Center of Legal Information of the Republic of Belarus. – Minsk, 2016.

### THE US PENAL SYSTEM IN STEPHEN KING'S NOVELLA "RITA HAYWORTH AND SHAWSHANK REDEMPTION"

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The US penal system is a system of special institutions implementing state policy in the sphere of criminal penalty. Federal criminal law was first presented as a system in the US Criminal Code in the 1870s. This section has been revised at the beginning of 20<sup>th</sup> century and in the late 40s. However, the federal criminal law is not codified (although there were such plans in the 1970-1980s.) [2].

The action in Stephen King's novella *Rita Hayworth and Shawshank Redemption* takes place in Shawshank prison, Maine, a US penitentiary, where the banker Andy Dufresne, the protagonist of the story, is sent. Some researchers believe that an old prison in Thomaston, Maine, which operated until 2004, was the prototype of Shawshank prison.

The novella belongs to psychological realism, which is quite rare for the author. For Stephen King this was the way to get as close to the reality as possible so that the reader believed that the actions described in the novella occurred or might have occurred in fact. The applicability of the topic is preconditioned by its possible use as a material for a comparative study of Belarusian and American penal systems.

The purpose of this work is to discuss the historical accuracy of the story from the point of view of its conformity to the realities of the US legal system, in particular, that of the state of Maine.

**Material and methods.** The research is based on the text of Stephen King's novella *Rita Hayworth and Shawshank Redemption* as well as legal websites and textbooks that describe the US penal system. The study employs cultural and historical methods as well as specific methods of legal research (synergetic, legal psychology).

**Results and discussion.** Pursuant to the US Constitution, criminal legislation, except for federal principles, belongs to state jurisdiction. In the novella the author appeals not to federal legislation, but to that of the state of Maine, thus emphasising its independence as a separate jurisdiction.

The US federal Ministry of Justice and state Departments of Corrections govern prisons and penal institutions – detention farms and workshops, offenders' reception, testing and classification centres as well as specialised medical institutions: prison hospitals and alcohol and drug abuse treatment centres.

Each penitentiary institution has a security level from 1 to 4. Prisons and other penal institutions of the  $3^{rd}$  and  $4^{th}$  security levels belong to the state or federal jurisdiction. If the imprisonment lasts for over a year, the security level and rehabilitation programmes are chosen by the offenders' reception, testing and classification centre. The prison described in the novella is unlikely to have a high standard of security as its convicts were assigned to community service outside the prison, which was a good chance to escape.

In 1969, the Inside-Outers were picking potatoes in Sabbatus. It was the third of November and the work was almost done. There was a guard named Henry Pugh - and he is no longer a member of our happy little family, believe me -sitting on the back bumper of one of the potato trucks and having his lunch with his carbine across his knees when a beautiful (or so it was told to me, but sometimes these things get exaggerated) ten-point buck strolled out of the cold early afternoon mist Pugh went after it with visions of just how that trophy would look mounted in his rec room, and while he was doing it, three of his charges just walked away. Two were recaptured in a Lisbon Falls pinball parlour. The third has not been found to this day [3].

According to the US Criminal Code (*Article 210.6, Article 6.01*), a murder of two people (that was Andy Dufresne's case) is a first-degree felony. A first-degree felony is an offence, punished by a minimum 1-10-year

imprisonment, the maximum term of which is life term. Imprisonment, being the most common punishment for a felony, is divided into short-term, longterm and life [1].

Capital punishment was abolished in the state of Maine in 1887.

They found him guilty, and brother, if Maine had the death penalty, he would have done the airdance before that spring's crocuses poked their heads out of the dirt [3].

A characteristic feature of the US criminal legislation is long-term imprisonments, often reaching 30-50 years. It should be noted that neither federal nor state laws set maximum imprisonment terms, which allows sentencing a convict to - say - 200 years' imprisonment or several life terms.

Maine has no death penalty, but the district attorney saw to it that I was tried for all three deaths and given three life sentences, to run one after the other. That fixed up any chance of parole I might have, for a long, long time [3].

In fact, there was a right to pardon as there is a chance of oblivion. The imprisonment term before the first pardon hearing is from 15 to 25 years. Stephen King indicates this fact in his novella, setting his protagonist free after 38 years' imprisonment.

What has happened in my life? Can't you guess? I was paroled. After thirty-eight years of routine hearings and routine details (in the course of those thirty-eight years, three lawyers died on me), my parole was granted. I suppose they decided that, at the age of fifty-eight, I was finally used up enough to be deemed safe [3].

Special attention is paid to the board of justices that decide on an early release of convicts.

Getting a pass out of Shawshank when you've got murder stamped on your admittance-slip is slow work, as slow as a river eroding a rock. Seven men sit on the board, two more than at most state prisons, and every one of those seven has an ass as hard as the water drawn up from a mineral-spring well. You can't buy those guys, you can't no, you can't cry for them [3].

A large part of the text is devoted to the description of the conditions the convicts were kept in, why they were sent to the punishment cell, community service, walks, the timetable as a whole. The author also mentions that there were two people in a cell, which corresponds to the life-term imprisonment standards.

We cannot but mention that Thomaston prison, the supposed prototype of Shawshank, was closed as there were too few people in it. This fact is indicated in the novella as well.

Shawshank has never been as overcrowded as most prisons, and back in '48 it was only filled to something like two-thirds capacity, but at any given time there might be eighty to a hundred and twenty cons on the yard - playing toss with a football or a baseball, shooting craps, jawing at each other, making deals [3].

The inside of the prison is described in minute detail, which makes them even more vivid and true to the fact.

To get to Solitary Wing you were led down twenty-three steps to a basement level where the only sound was the drip of water. The only light was supplied by a series of dangling sixty-watt bulbs. The cells were kegshaped, like those wall-safes rich people sometimes hide behind a picture. Like a safe, the round doorways were hinged, and solid instead of barred. You get ventilation from above, but no light except for your own sixty-watt bulb, which was turned off from a master-switch promptly at eight p.m., an hour before lights-out in the rest of the prison. The wire wasn't in a wire mesh cage or anything like that. The feeling was that if you wanted to exist down there in the dark, you were welcome to it. Not many did ... but after eight, of course, you had no choice [3].

**Conclusion**. Stephen King's novella *Rita Hayworth and Shawshank Redemption* acquaints the reader with the facts typical of the US penal system in the 20<sup>th</sup> century. The historical credibility of the facts and descriptions allows using the novella as an additional source of information for American law students.

#### Reference list:

- 1. Примерный уголовный кодекс США // Российский правовой портал: Библиотека Пашкова [Электронный ресурс]. 2011. Режим доступа : http://constitutions.ru/?p=5849&page=3. Дата доступа: 04.03.2016.
- Уголовное законодательство США // Уголовное право России. Учебник для вузов. [Электронный ресурс]. – НОРМА, 1997. – Режим доступа : http://www.bibliotekar.ru/ugolovnoe-pravo-4/index.htm. – Дата доступа: 10.03.2016.
- 3. King, S. Rita Hayworth and Shawshank Redemption // Best Free Books Online Read [Electronic resource]. Free Novels Online, 2013-2014. Mode of access : http://www.rednovels.net/horror/Rita/index.html. Date of access: 20.02.2016.

# PRESCHOOL AND PRIMARY EDUCATION. SPECIAL EDUCATION. MUSIC EDUCATION

### SOCIALIZATION OF SCHOOLCHILD WITH INTELLECTUAL DISABILITIES A MASH LESSONS

### E. Bud'ko

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Research in the field of social development of children with intellectual disabilities held E.L.Goncharovoy, O. I. Kukushkinoy, T.K. Korolevskoy, E.A. Strebelevoy, A.V. Zakrepinoy. Show that the violation of psychological development as intellectual deficiency reduces the possibility of the child in the acquisition of a social experience, his training for an independent life. In recent years, been a number of studies aimed at understanding the features of the assimilation of students with intellectual disabilities mathematical knowledge, skills and capabilities of their socialization in mathematics lessons (N.D. Boganovskaya, V.P. Grikhanov, R.A. Isembaeva, M.N. Perova, Yu. Pumputis, M.I. Sagatov, I.G. Terekhova, A.A. Khil'ko, V.V. Ek and other).

Article purpose – to analyse the main approaches of socialization of pupils with intellectual insufficiency means of mathematics.

**Material and methods.** As material of a research training programs, textbooks and education guidances on mathematics for auxiliary school (1 department) served. For completeness of the analysis the research material within vocational education in Republic of Belarus reflecting essence of process of socialization of children with features of psychophysical development in the present stage was used.

**Results and discussion.** Handout math program is focused not so much on the performance of educational tasks as to achieve a level of skill that children need for successful social adaptation. Therefore, the learning process is of paramount importance an individual approach, the dosage of the complexity of tasks, which allows to create a successful situation for each child [1].

In materials research A.N. Konoplevoy, T.L. Leshchinskoy, T.V. Lisovskoynoted that the success of social adaptation of children with intellectual disabilities depends on the depth and quality of knowledge and skills obtained by them in the school. The higher the level of formation of knowledge, abilities and skills in mathematics, the easier it is to take up the child to the conditions of modern society, to feel their own importance. In math class the accumulation of a certain stock of mathematical concepts, formed an integral system of knowledge, develop cognitive activity, all kinds of thinking, spatial representations are formed. After the decision of arithmetic problems, acting out situations in life, search jobs, aimed at the formation of applied skills, is to prepare students for independent living, to work.

Based on the learning objectives in the secondary school, math solves the following problems:

- Building available to students of mathematical knowledge and skills and their practical application in everyday life, the main types of work in the study of other subjects.
- Maximum overall development of students, correction of the shortcomings of their cognitive activity, and personal qualities to suit the individual capabilities of each student at various stages of training.
- Raising students' purposeful activity, diligence, independence, and selfcontrol skills, accuracy, ability to make decisions, to establish adequate business, production and human relations in modern society.

Teaching mathematics in the secondary school should wear a subjectaction-oriented, to be closely related to the life and professionally - labor preparation of pupils, other subjects.

The process of adaptation to the environment and the establishment of appropriate behavior, adequate norms and regulations, it is extremely difficult for children with mild intellectual disabilities accepted in society. Therefore, the main task of studying "Elements of arithmetic" of the object is:

- Give students the available quantitative, spatial, temporal representation that will help them in the future to better adapt to life;
- Use the learning of arithmetic elements for the correction of deficiencies of cognitive activity of students and their personal qualities;
- Educate students in hard work, patience, hard work, the ability to bring it started to finish.

Education of children with mild intellectual disabilities has a number of features. This category of students do not themselves exercise the transfer of acquired knowledge to new situations that arise during the day. A new experience is acquired by assimilation already old material. All this is extremely important to expand the horizons of children and to further prepare them for life in society. In this regard, the curriculum for the subject "Elements of arithmetic" provides recommendations for fixing the acquired material in everyday life [2].

Using personal experience of the child in the classroom mathematics due to the fact that the special school classes are heterogeneous according to the degree of development of children, for their ability to assimilate the program material. It should be borne in mind that a child with intellectual disabilities has a certain social experience and it should be used in practice in the mathematics lessons. The objectives of the social content that are offered to students in the classroom should include the further refinement and automation of the existing computational skills to solve specific practical problems.

The following conditions must be met, including in mathematics lessons for the successful preparation of students with intellectual disabilities to independent living: 1. Targeted educational system of work aimed at obtaining concrete results in the child development necessary for him in his life of social knowledge and skills;

2. Reaching every child the best possible level of social and domestic preparedness;

3. Implementation of a differentiated and individual approach to pupils, students, creating a situation of success [3].

**Conclusion.** Thus, mathematics lessons are a means of social adaptation of students with intellectual disabilities. Teaching mathematics in the secondary school, is the subject-action-oriented, closely connected with the life and work of professional training of students. One of the main ways for successful social adaptation of pupils with intellectual disabilities is a comprehensive strengthening of communication of mathematics teaching with life and practice. This connection should be implemented through the content of mathematical tasks, which carry information about the work, about jobs, about sports, about history, about the economy and other areas of life.

#### Reference list:

- 1. Program of the 1st department of auxiliary school with Russian language of instruction. Mathematics. 6–10 classes. Minsk: NIO, 2006. 39 p.
- 2. Programme of the 2nd department of the special school. Elements of arithmetic. Grades 1–9. Minsk: NIO, 2003. 27 p.
- Voronkova, V.V. Socio-home orientation of pupils of 5-9 classes in the special (correctional) comprehensive school of VIII kind: A Handbook for Teachers / V.V. Voronkova, S.A. Kazakova. – M.: VLADOS, 2014. – 247 p.

### THE USAGE OF ANGLICISM BY TEENAGERS IN THE FOUL LANGUAGE

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Nowadays the problem of teenagers' speech is of great interest. A teenager is a young person whose age falls within the range from 13(14)–17(18) in the United Kingdom. The usage of the foul language is explained by the influence of sense of maturity. According to Batyrov's research "it is supposed that there are a lot of English words in the foul language" [2, p. 94].

The aim of the present article is to analyze the reasons of Anglicism and the foul language usage by teenagers and work out some rules that could help to schoolteachers eliminate this problem.

Material and methods. Critical analyzing of the scientific sources, examining and observation of teenagers' speech and describing are helpful in our investigation of the problem.

**Results and discussion.** The foul language is a language, which is not set up in the literary one, including provincialism, slang expressions, barbarism, neologism, profanity but does not look beyond them.

The teenagers' foul language derives from their necessity in affirmation their personal rights. In most cases, they understand absurdity and imperfection of their speech but the foul language helps them to adjust to difficult and antipathetic community shocking grown-ups and proving their right to independence [3, p. 51–54].

Consequently, 19% of all the examined always use slang expressions, 47% – often and 34% try to avoid them. Teenagers come across with slang on the Internet (72%) and hear from familiar adherent of some sub-culture (28%).

From all the surveys 58% are in the habit of using profanity as well while talking with their friends (88%) and acquaintances (12%).

Teenagers also bring to bear Anglicism in their speech. Anglicism is an English word or phrase that is used in another language. The list of such frequently used words was offered to identify the Russian variants to the English one writing their translations. The observation shows that the English words are used by 74% and even 99% are aware of the meanings. However, we have found out the misspelling as 61% have faults in writing English variants. 95% of the surveys have got acquainted with Anglicism by means of mass media, 4% are adherent of hippy sub-culture and 1% has chosen some English words as his favourite one.

High rate in usage of either the foul language or Anglicism by teenagers can be explained by a number of factors, the main of which are:

- 1) poverty of teenagers' vocabulary;
- 2) the influence of mass media;
- 3) rebellion and the desire of being notable;
- 4) attempts to be a law unto itself [1, 14].

It should be mentioned that although the usage rate of the foul language is rather huge, the teenagers themselves are eager to omit it. In the eyes of the surveys, the speech must be without profanity and slang expressions, literate, polite, close to the bookish one and easy-to-understand for others.

We consider that schoolteachers should try to acquire taste for polite language and demonstrate its opportunities. It is studying at school that turns out to be the fact of quantity cognitive changing, as the language is its powerful tool. During carrying out some tasks, teachers should draw the whole vocabulary wealth and include verbal label into syntactical context.

Having encountered and considered all the problems we supposed to work out a detailed plan how to overcome the usage of the foul language and spelling mistakes in Anglicism. We suggest the number of rules to follow: 1) the schoolteachers should keep control of themselves and don't allow to use bad language;

2) explain the words origin and where they are usually used;

3) make a teenager sure that such lexicon demonstrates his narrowmindedness and lack of education;

4) make a practice of public speaking and friendly talking;

5) set aside some time for the explanation of some slang expressions from the English language during the lessons.

**Conclusion.** According to our research, it should be mentioned that the usage of the foul language by the teenagers is still an essential problem. Informal language is rushing to escape from all in a day's work, from grown-ups, parents and any kind of tutors. Youth slang is similar to its owners: it is vulgar and rough. The language reflects youth's intentions stronger than cloths, haircuts, and a modal of living. Moreover, the grown-ups' task is to remain one of the best example of bookish language, gently helping teenagers to get rid of Anglicism in the foul language and preventing some elementary mistakes in them.

### Reference list:

- Anisimov, V. N. Without expressions / V. N. Anisimov // The children's health. 2009. – №1. – p. 14.
- 2. Batyrov, E. O. About the problem of using the foul language in the modern Russian speech / E.O. Batyrov. Moscow: MSPPU, 1999. 180 p.
- Borisova, E. G. Modern youth slang / E. G. Borisova // Russian Speech. 1980. №5. – p. 51–54.

### FORMATION OF RULED BEHAVIOUR AT CHILDREN WITH VIOLATIONS OF MENTAL DEVELOPMENT (DIFFICULTIES IN TRAINING)

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Now a special importance is get problem of behavior of pupils with violations of mental development (difficulties in training).

In psychological literature the concept "randomness" is understood as ability to submit to rules, instructions, standards, samples [1; 5]. At characteristing of randomness, it is important that samples and standards became internal rules of the child. Randomness is characterized by the fact that the child reconstructs the behavior (or a new builds) according to the rules. To achieve this, the child has to be able to separate the activity (or behavior) from himself and to correlatit to the available knowledge, rules, instructions, in other words, he has to be able to realize himself in the activity. The aim of the study is to reveal and to empirically study features of any behavior at pupils with violations of mental development (difficulties in training).

**Material and methods.** Theoretical and methodological basis of the research was made by the works of Russian scientists devoted to the theory of development of the personality including the conditions of the broken development (L. S. Vygotsky, L. I. Bozovic, L. V. Zankov, B. V. Zeygarnik, A. R. Luriya, D. B. Elkonin). According to the purposes and research task of the at its different stages the following methods were used: analysis of psychological and pedagogical literature; observation; conversation; questioning; pedagogical experiment; methods of mathematical processing of the received results.

**Results and discussion.** Contents and the essence of the selected characteristics are the that formation of randomness is closely connected with the the development of the identity of the child, and it means, with the practical solution of the problem of unity of affect and intelligence which we, after L. S. Vygotsky, consider the of personality, central for psychology [3]. The problem of unity of affect and intelligence can't be solved without the third link playing the role of a binding basis. Such basis is the strong-willed sphere of the personality. Will acts as the highest function which connects and harmonizes the intellectual and emotional development of the person. The distinctive feature of the strong-willed act is that the functions of motivation and judgment are combined. Strong-willed development appears as release from external dependences, and will as the function introducing a sense in the situation. The personal, internal free behavior always assumes the participation of will.

The motivation and the speech helps the child to plan in consciousness an order of necessary actions for achievement of a certain purpose, to set a specific goal. In the speech of the child rules of conduct, social norms which directly influence his behavior are reflected. Also by means of the speech it is possible to expect results of the actions. Thus, the formation of - level system of any behavior is one of indicative characteristics of the child development.

During training at school it is very important to form at children randomness in behavior. Oneself to sit out at a lesson, to force to carry out exercises at school, to do homework independently – all this demands from children the control and ability to operate the behavior. The child has to be capable to direct the motives to performance of a certain educational action, to be able to choose tasks which need to be carried out the first, i.e. to establish a priority in this or that action. Randomness development is the pledge and necessary condition of successful educational activity of the pupil of elementary grades. If randomness of behavior of the pupil isn't created during the specified life period, and it is better during the preschool period of the childhood, then the child, most likely, won't want to study, he will quickly bother to go to school and to do uninteresting homeworks, to conform to the school rules.

D.B. Elkonin singlecout several parameters relating to randomness components that well correspond to the educational activity: 1) ability the conscious to submit to the rule; 2) ability to be guided by the set system of requirements; 3) ability to listen carefully speaking and to reproduce the tasks offered in the oral form; 4) ability to independently perform a task on the basis of a visual sample [5]. These components and characteristics of ruled behavior at pupils with violations of mental development (difficulties in training) lag behind standard indicators and therefore for successful implementation of the program of development of any behavior in this category of pupils it is necessary to use the following methodical means and conditions:

• formation of positive motivation to participation in occupations (support of any undertakings, introduction of encouragement (points, prizes, sanctions, etc.);

• fixing of the positive and negative moments with markers (for example, counters where the exclamation mark is schematically represented: red color – for incentive points, black color – for the sanction for violation of the rules);

• observance of the accurate, repeating structure of occupations, an invariable arrangement of objects, introduction and observance of rules, rituals, temporary regulations (for the purpose of the additional, organizing moment when forming randomness, habits);

• alternation of verbal and nonverbal means;

• gradual complication of the used means;

• holding demonstration sessions (separate exercises at first the leader, and then participants carry the exercise out);

• use of detailed, accurate instructions for exercises;

• use of separate exercises on development of stability and concentration of visual attention;

• existence of notebooks, colored pencils or felt-tip pens (for performance of exercises);

• alternation of group and individual forms of work (performance of a task individually, in couples, the three, groups);

• transition from control of the leader of performance of tasks, at first to mutually control (estimate each other), then to self-checking (everyone estimates himself);

• use of elements of a taletherapy, work with a metaphor (for the purpose of fixing of the obtained information at the unconscious level, development of creative potential of pupils, and also as a diagnostic method);

• use of role-playing games (for the purpose of formation of new behavior models since change of positions promotes change of the attitude towards own behavior);

• discussion, a discussion (as a way of a reflection and formation of skill it is adequate to express the thoughts);

• training in skills (for example, removal of psychoemotional tension, statement of the purposes, permissions of conflict situations, decrease in aggression, etc.).

**Conclusion.** Let's notice that the thought-over and systematic work on the correction of any behavior at pupils with violations of mental development (difficulties in training) will promote formation to listen carefully, work by the rule, to operate randomly the activity, to work precisely instructions of the adult, skill to communicate, to developm social trust, mutual aid, self-confidence. The emergence of new forms of any behavior directly will affect success of educational activity of pupils.

Thus, it is necessary to carry out purposeful, consecutive work on correction of the available difficulties in development of any behavior and activity in children with violations of mental development (difficulties in training) to promote the success of training and communication of such pupils, regulation of their behavior, motivation of educational activity.

### Reference list:

- 1. Bozovic, L.I. Lichnost and her formation at children's age / L.I. Bozovic. SPb.: St. Petersburg, 2008. 400 p.
- Vygotsky, L.S. Psikhologiya of a child development/Hp Vygotsky. Moscow: Eksmo, 2003. – 512 p.
- Vygotsky, H.P. Development of the personality and outlook of the child. In xp. Psychology of the personality/H.P. Vygotsky. – Volume 2 – Samara: "BAHRAH", 1999. – P. 137–148.
- 4. Rychkova, N.A. Dezadaptivnoye behavior of children. Diagnostics, correction, psychoprevention / N.A. Rychkova. M.: Gnome and D, 2000. 365 p.
- 5. Elkonin, D.B. Mental development at children's age: Chosen psychological works; under the editorship of D. I. Feldshteyna / D.B. Elkonin. 3rd prod. M.: Mosk publishing house. психол. соц. in-that; Voronezh: MODEK, 2001. 416 p.

# FEATURES OF PEDAGOGICAL MAINTENANCE OF THE FAMILIES RAISING CHILDREN WITH INTELLECTUAL INSUFFICIENCY

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Work with family is an important direction in the system of medicosocial and psycho-pedagogical support of children with special needs. The author of the books Mastyukova E. M. noted that the understanding of the birth of a child with intellectual disabilities on a psychological level is divided into stages: a Condition of confusion, fear; state of shock transformirovalsya in negativism; depression in the process of making diagnosis; mental adaptation on the basis of full acceptance of the diagnosis [1].

All families raising children with deviations in development are characterized by the following signs: - parents test a psychological and physical overwork, alarm for prospects of the child; - intra family, including matrimonial, the relations are broken and distorted; - the social status of a family decreases [2].

The aim of the study is to reveal style of family education within psychological correction of the child parental relations in the families which are bringing up the child with intellectual insufficiency.

**Material and methods.** For the purpose of further definition organizationally – pedagogical conditions of improvement of the pedagogical help to the child's family with intellectual insufficiency in the conditions of interaction with institutions of education, we conducted pilot study of features of pedagogical maintenance of families of pupils on the basis of Auxiliary School No. 26 of Vitebsk, Specialized Kindergarten No. 64 of Vitebsk. As methods of a research the analysis of school documentation and questioning of teachers, the parents raising children with intellectual insufficiency were used. The research was conducted in September – October, 2016.

**Results and discussion.** Results of questioning of parents showed that 100% of respondents consider necessary cooperation of educational institution and a family. Various aspects of education and training of children with intellectual insufficiency became the most topical issues interesting parents, and the following tendency is noted: the parents raising children with intellectual insufficiency of preschool age are interested mainly in questions of training of children, their preparation for school while parents of school students with intellectual insufficiency more are concerned by questions of education, feature of awkward age, social adaptation in adulthood and employments (14,2%). The analysis of school documentation showed objective shortage of number of actions with parents for these topical issues.

The analysis of answers of parents about their needs for improvement of content of PTA meetings showed that 42,8% of respondents are at a loss in definition of subjects and questions, urgent for them, that can testify to the insufficient level of understanding of communication between a child development and participation in is mute families and institutions of education, about the low level of pedagogical literacy of parents. 4,7% of parents the question of improvement of quality of education interests; 4,7% would like to learn about the ethical attitude towards disabled people and ways of their integration into society, about the planned actions (4,7%); councils for preparation for awkward age of the child (4,7%). It should be noted the revealed monotony of individual forms of work with parents. So, 47,6% of parents specified that the most common form of such work is the individual conversation.

	Authoritative	Liberal family	Democratic	The mixed
	family		family	family
Kontrolny group	30%	30%	20%	20%
Experimental group	30%	30%	20%	20%

Table. Results of a research on a questionnaire "The analysis of family education" (authors - E. G. Eydemiller, V. Yustitskis)

30% of authoritative families where the favorable, comprehensive education of the child directed to decomposition, destruction of the identity of the child slows down. 30% of liberal families in which parents do not take active part in education of the younger school student. 20% of families where there is a desperateness at education of the child, are only uncertainty in the choice of methods of education, a right way of development. 20% make democratic families in which atmosphere reigns positive for implementation of full education.

It is possible to draw a conclusion that in a percentage ratio the top is taken by authoritative and liberal families, than democratic families. In experimental and control group results appeared almost at one level. The child development, formation of its personal qualities is defined by education level in a family. If it is an authoritative family, then, negative lines of the personality are in most cases put. Most, it is possible to tell also rather liberal family where the authority of parents does not play a role. The most acceptable is considered the family in which parents and children in common mutually cooperation with each other.

**Conclusion.** Thus, possibilities of interaction of institutions of education and a family are used not fully. The reasons limiting interaction of pedagogical collective and a family is the following: low level of understanding of communication between a child development and development of a family; the insufficient level of development of dialogical communication in the relations with parents; domination of verbal forms of work of teachers with parents; insufficiency of abilities of planning of collaboration with parents. Results of the stating experiment showed need of improvement of content of pedagogical maintenance of the family which is bringing up the child with intellectual insufficiency.

### Reference list:

- Mastyukova, E.M. Family education of children with deviations in development: studies. a grant for student. высш. studies. institutions / E.M. Mastyukova., A.G. Moskovkina; under the editorship of V. I. Seliverstov. – M.: Gumanit. VLADOS center, 2003. – 408 pages.
- Parkhomovich, V. B. Psychology and pedagogical escort of the parents having children with deviations in development. V.B. Parkhomovich//Defektalog\_ya, 2003. – No. 6. – Page 98.

# A DIDACTIC GAME IN ORGANIZATION OF PRESCHOOL CHILDREN'S ACTIVITY

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Game (according to the periodization of development of personality which was worked out by D.B. Elkonin) – is leading kind of activity of children in preschool age. Leading kind of activity in certain period of development of personality is one which causes new formation in the mind. As N. Maksimuk noticed, it causes the development. And the effectiveness of development and, consequently, teaching and upbringing will depend on supplying with children's participation in a leading kind of activity [1, p. 31].

A didactic game in infant schools the leading method of teaching, upbringing and development of children in preschool age because it corresponds to their psychological and age features. It's very important because it helps mentors to form the elements of educational activity, also it helps teachers to substitute a game for study and soften the passage from gone to studies.

Researchers T. Nedvetskaya, O. Legankova, L. Voronetskaya mentioned that a didactic game promotes perfection of pedagogical communication. Teacher plays different parts in a game. If children knows the game, teacher can resign his commission to them and become original player. As a result mentor and children draw together and common understanding grows. One shouldn't forget, especially probationers, that a didactic game is an educational game at first. Only with the help of a didactic game program ideas are leant and skills are formed. A didactic game does no only teach but develop intellect, will and emotions.

At the same time, as our research has shown, young mentors and probationers do not always determine the rules of a didactic game, understand the role of pedagogical leadership before a game and during it.

The aim of our research is showing up the main typical features of didactic games which are conducive to increasing of children's interest in occupation which are activate the productive activity of preschool children.

Material and methods. During the experiment the observation of studies in infant schools of Orsha№15, 16, Preschool Development Centre№1 was organized. In research 4 mentors with seniority from 10 to 27 years and nine seniors of the college took a part. We were guided by different methods: comparative analysis of classes (development of language, mathematics, a child and the nature), observation, survey, theoretical analysis of scientific and educational literature, interview with mentors, analysis of syllabus of infant school, analysis of plans of classes.

**Results and discussion.** E. Tiheeva, W. Flerina, A.Starodubova noticed that the structure of a didactic game is a didactic game, matter, rules and game actions [2, p. 19].

The didactic aim is the thing which we are going to form using any game. The matter of a didactic game is the surrounding reality: the world of sounds, numbers, plants, animals, occupations, life and so on. Rules are very important in a game. Rules are the requests to an the activity, behavior and relationships between children (how to play – loud or quietly, on one's own, in pairs, together and so on). If the didactic aim shows educational direction of a game then rules help to realize educational potential of a game. We've found out that only 62 % of future mentors form rules of a game. At the same time mentors of the first and the second category pay more attention to it.

The base of any game is actions. They are the operations which a child carries out in a game: claps his hands, sits at the table, throws and catches the ball, chooses pictures or cards, compares things and so on. If there is a game action there will be a game as well. If there is no game action game will disappeared and there will be only a didactic exercise. If rules say a child how to do then game actions say what to do. Research has shown that a mentor can create his own didactic games (91 % mentors with the experience of 10 years). But it's difficult for young mentors. We have made a conclusion that we should use an interesting game action in a didactic game. It will be the motive and it will make children want to solve posed problem.

Game action can be:

- game manipulation of objects (chidden choose, classify geometric figures, cards and toys);
- searching and finding (searching of particular color, size, figure, number, letter and so on);
- proposing and solving a riddle (guess by description);
- playing different roles;
- competition;
- a special game action (catch my sound);
- expectation and surprise («A wonderful bag », «A magic casket», meeting with a letter which is stuck in the snow);
- game intonation (a letter, telegram, address, meeting...).

Pedagogical leadership is very important in the organization of a didactic game. We have found out that pedagogical leadership includes determination of the didactic aim, its place and role in the educational process, interrelation with other methods; then pedagogical leadership includes thinking through an explanation of rules and a course of the game, preparing necessary game equipment; thinking through an individual work with preschool children during a game.

Pedagogical leadership does not envisage announcing the game but offering it (Do you want to play? Do you want to play new game?); then it envisages brief and clear explanation of rules and a course of the game, showing an example of action, watching following rules. Also pedagogical leadership is responsible for prevention of expulsion for a mistake or violation. Then we shouldn't force children play but encourage and praise them for the right performance' we should involve then into the game; and after that we should make a conclusion, even if it is short.

We think that a didactic game can't be the way of entertainment because it is a teaching method. That's why didactic aim of a game must correspond to an aim of a lesson but young mentors often forget about it.

**Conclusion.** Thus we have made some conclusions: 1) a didactic game has a clear structure and its components are mandatory in the process of organization of activity in any educational sphere unlike a didactic exercise; 2)we should think through a didactic aim on a lesson and then according to it report game rules and organize game actions; 3) variety of game actions contributes mastering of necessary ideas, forming skills, development of fundamental mental processes, provision enhanced motivation for activity, adding interest to the educational process, train the children's ability to control their behavior, interact and communicate.

### Reference list:

- Maksimuk, N. One more time about a game! / N.Maksimuk// Praleska. 2016. № 9. – P. 31–33.
- 2. A game in the preschool children's life: manual for teachers / E.A. Panko [and the others]; edited by J. L. Kolominsky Mozyr: White Wind, 2014.

### DEVELOPMENT OF CREATIVE ABILITIES OF THE SENIOR PRESSCHOOL CHILDREN IN THE CLASSES FOR MODELING WITH A DUCTILE MATERIAL

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Development of the child interest to self-realization of creative idea this is a problem of the child development in graphic activity [2, p. 319]. However, analysis of the scientific and methodological support has revealed an insufficient number of pedagogical tools to facilitate effective implementation of the tasks under "Art" educational area "Child and art" and the satisfaction of the teaching community.

Aim of the research – to develop the structure of the content of "Modeling" educational area "Art" for the children of the senior group.

**Material and methods.** To solve the problems was used methods: the analysis of the legal and regulatory framework (Code of Education of the Republic of Belarus, the curriculum of pre-school education, educational standards for preschool education), analysis of scientific and methodological literature on the problem, works of national and foreign authors.

**Results and discussion.** One form of organized activity in pre-school education is the occupation. We have developed a set of classes built systematically, responsive to the challenges of educational area "Art" section of "molding". The composition of the content includes 28 activities for children preschool age. Sessions include: abstracts, illustrations material and recommendations for its use.

A child of preschool age actively learns the world around us, it stimulates the expression of views of the world, development and implementation of their own plans available means. Own idea is based on the initial perceptions and experiences of the child interaction with the outside world. It emphasizes the importance of creating conditions to enrich the perception and the ability to see the beauty of the surrounding world, emotionally respond to it. It is necessary to emphasize the importance of the fact that the content of the lesson should be based on the principle of integrity, the principle of initiative of the child, basically due to the culture.

Development of creative abilities depends on the level of mastery of representational abilities. Ability in the visual arts includes the ability to perceive the image, use the expressive means of the image and the ability to create an image. Each the occupation involves preliminary work. It is necessary to: explore the product, determine the necessary process and the methods of its creation.

Each the occupation takes into account the age of the child and his capabilities, the level of methods and the process of creating an image, the independence of their application. It is important to combine the occupation in the proposed topic (classes "Bullfinch", "Dragonfly on a flower", etc.) and the occupation which include the creation of their own ideas (exercises "Autumn leaf fall", "Plates" and others).

A child of the senior preschool age is able to select a topic in which a he will create a product and select the method by which he would convey their own ideas about the topic.

Also preschooler is able to distribute the responsibilities of collective action together to create images (the occupation "World of insect", "Cosmos"). However, this process depends largely on the skill of the teacher. He is contributes to an atmosphere of goodwill and co-creation in which children can communicate with each other for a common cause.

An effective way to achieve these goals in the occupation - it is a complex combination of techniques and methods of organization. However, it should first start from a games methods and create a games situations (for example, an educational and a didactic games, a surprise of moment and others). This game is a grain of creative activity of the child. Through play, children not only opening up the world, but also opening themselves to peace. The child tries on the role of the game and in the game he is committed to the creation, completion and supplements the ideas that will be similar to the real object.

Preschool age is a sensitive period for the development of many psychological processes. The development of imagination is a neoplasm of the period (L. Vygotsky, M. Dyachenko). In our opinion, the formation of creative abilities in modeling will be effective if: 1) the development of the creative potential of this systematic and comprehensive a formation. It is a permeates the educational process in all areas of child development; 2) it supports adult interest in the creation of the image together with adults and alone on their own ideas. Adult creates a situation of success for the child; 3) adult creates the conditions in which the child learns the emotional to respond a beauty of the world, perceive and analyze works of art and the result of their labor with the help of adult questions.

**Conclusion.** To generate interest and desire of the child to participate in the creative process with the help of modeling necessary to create conditions for the manifestation of fantasy child and experimentation in the regulated and non-regulated activity of the child.

#### Reference list:

- 1. Grigorieva, G.G. The development of the preschool child in graphic activity / G.G. Grigorieva. M., 1999. 344 p.
- 2. The curriculum of pre-school education / Ministry of Education of the Republic of Belarus. Minsk: Nat. In-t Education, 2012. 416 p.

# PSYCHOLOGICAL FEATURES OF COMMUNICATION OF PRESCHOOL CHILDREN WITH STUTTERING WITH PEERS

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Senior preschool age is a stage of intensive mental development. At this age, there are significant changes in all areas, ranging from the improvement of psycho-physiological functions and ending with the emergence of personal neoplasms [2]. Of particular importance for the development of the child is communicating. Preschoolers relationship are of particular interest to teachers, psychologists, speech therapists, etc. [1]. The concept of "communication" is considered by many authors from different perspectives. There are many approaches to the understanding of this concept, for example, approaches such as: activity, system-communicative-information approach, communicative approach, socio-psychological approach.

The main components of the communicative processes are:

- communicative ensuring exchange of information;
- interactive governing interaction partners in the dialogue;

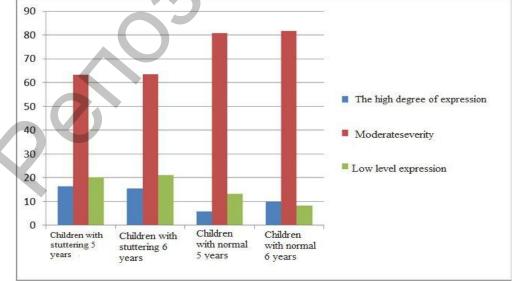
• perceptual - organizing mutual acceptance, relationship reflection and fellowship [4].

The aim – of this study is develop and test a system of psycho activities aimed at the normalization of emotionally-personal sphere of senior preschool children with stuttering.

Of the study lies in the fact that the object of the study is the psychological characteristics (verbal speech anxiety and fear) of children with stuttering, which to date are not sufficiently studied. The research is to clarify and concretize the modern concepts of general and specific patterns of deviant development, in particular the specifics of the emotional development of children of preschool age with stuttering.

**Material and methods.** In the study, a pedagogical experiment was conducted. We set the goal: to determine the level of alarm voice when communicating with peers in preschool age children with stuttering. The study involved 24 pupil of the senior preschool age with stuttering from the state educational institution "Special kindergarten  $N_{2}$  18 for children with severe speech disorders, Vitebsk". 10 age children with normal speech development included in the control group. In the experiment to determine the level of alarm voice when communicating with peers in children 5-6 years old with stuttering and specific diagnostic techniques were used [2].

**Results and discussion.** Our results were analyzed according to the criteria presented in diagnostic methods. Presented in Figure 1, the data show that the cumulative value of speech anxiety was significantly different depending on the status of different speech (stuttering and regulatory speech).



Picture 1 – The difference in the degree of severity of speech anxiety when dealing with peers, depending on the age of stuttering and normal.

Picture 1 shows the degree of speech anxiety depending on age. It is clear that: a high degree of speech anxiety is equally evident in 5-6 year old children with stuttering, normally developing peers high degree of increasingly concentrated in the 6 years old.

The results obtained during the pilot study led to the following conclusions: emotional distress in a situation of speech communication and speech anxiety is observed in all the studied groups of children of preschool age, that allows to establish a common pattern, typical of children in the period, the sensitive for the development of social and communicative functions speech. The severity of anxiety when speech communication depends on the nature of the speech disorders, while sex and age have a minimal effect; in children with stuttering and normal speech development. There is a relationship between situational anxiety and fears. In addition, children with normal speech development discovered a relationship between situational anxiety and the need for protection; children with stuttering are higher as compared with other categories of children studied, the level of speech anxiety, reaching from individual children to glossophobia [1].

**Conclusion.** So, the results of the study indicate that communication with peers age children with stuttering is characterized by a number of specific features. This suggests the need for the organization of correctional and developmental work with dysontogenestic this category of children and their parents [4].We should take into account the structure and quality of speech disorders and characteristics of secondary abnormalities in personality characteristics of children.

### Reference list:

- Vinogradov, MA Formation of skills of speech communication at stammering preschool children: Study guide for speech therapists / MA Vinogradov. – SPb .: "Karo", 2006. – 304 p.
- Leshkova, TV Box with fears / T. Leshkova // Preschool education, 2008. № 10. 115.
- 3. MI Lisin Formation of the child's personality in communication / MI Lisin; 2nd ed., Rev. and ext. SPb .: Peter, 2009. 276 with.
- Shvets, IG Accounting for preschoolers features alarm as a condition of their development / IG Shvets // Yearbook of the Russian Psychological Society. Proceedings of the 3rd All-Russian Congress of psychologists. – SPb, 2003. – P. 383–384.

# PHYSICAL TRAINING, SPORTS AND TOURISM

## ELECTROCARDIOGRAPHY AND ECHOCARDIOGRAPHY FOR INVESTIGATION OF MYOCARDIUM ADAPTATION DURING PHYSICAL EXERCISES

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A research aim is an exposure of physiological features and reasons of development of pathological changes in the heart of sportsmen at systematic muscular activity. Approximately for 40% athletes from disparity of intensity of the physical and emotional loadings to possibilities of organism of change from a digit adaptation pass to the grade of pathological. One of major directions of physiological researches is a complex, synthetic estimation of the functional state of organism of man in a norm and at pathology. Such estimation is needed for more effective management all sides of his vital functions.

In accordance with the put aim it is necessary to decide next tasks:

- to conduct an analysis and generalization of literary sources on the subjects of adaptation of heart to physical activities and features of physiological sporting heart;

- to compare the scientific informing of these electrocardiography and echocardiography researches of sportsmen;

**Material and methods.** Researches were conducted to the students of faculty of physical culture and sport (in an amount 60 persons) in 2015 and in 2016 years on the base of the Vitebsk regional dispensary of sporting medicine with the use of modern and informing enough methodologies of electrocardiography and echocardiography. Sporting specialization is track-and-field (students with high qualification are 15 persons).

As is generally known,  $\Im K\Gamma$  is valuable diagnostic. A research aim is an exposure of physiological features and reasons of development of pathological changes in the heart of sportsmen at systematic muscular activity.

In accordance with the put aim it is necessary to decide next tasks:

- to conduct an analysis and generalization of literary sources on the subjects of adaptation of heart to physical activities and features of physiological sporting heart;

- the Substantial role in the study of adaptation processes arising up in a heart in reply to the sporting training, played the researches, conducted by means of method of echocardiography, allowing to give the quantitative estimation of sizes of heart and define to the way of adaptation hearts to the hyperfunction, that reflect the processes of development of adaptation.

A basic method of diagnostics is a two-dimensional echocardiography (Echo of KG). The sensitiveness of this research makes to 90%, specificity 90–100% [2].

**Results and discussion.** Our the data of researches of sportsmen confirm the known clinical экг-признаки of physiological «sporting» heart (on A.  $\Gamma$ . Дембо, 1989): moderate sine брадиаритмия; extended interval of PQ; increase of height of indent of T to 2/3 heights of indent of R in the pectoral taking; displacement of interval of ST higher than isoline on a 1–2 mm in the pectoral taking. n a state of rest for the well trained sportsmen a correct sine rhythm (in 80%%) was determined, in a number of cases (the 15%%-синусовая arrhythmia conditioned by a breathing act. The presence of migration of source of rhythm is marked in 5%% cases. Duration of atrioventricular conductivity (is an interval of P–Q) – time from the beginning of excitation of auricles to beginning of excitation of ventricles is within the limits of the normal borders set for healthy people.

Echocardiography researches discovered that the trained sportsmen have a small symmetric bulge of wall of the left ventricle in combination with megascopic certainly-diastole sizes. Certainly-diastole volume (K $\square$ O) as measure of dilatation «of sporting» heart, hesitates for sportsmen in wide limits. He changes within the limits of a 100–140 ml depending on the degree of trained, while for the untrained men – within the limits of 80–110 ml.

In the article these inspections of students of faculty of physical culture and sport are presented on the base of the Vitebsk regional dispensary of sporting medicine and these presences for them of some pathological changes are got in morphology of heart. In is set, that to the physiological heart of sportsmen, high functional possibilities and ability to carry the intensive loading are peculiar.

As a result of researches frequency of revealing of informative attributes of a hypertrophy of a myocardium of ventricles depends on her localization. So, we receive the data of the greatest interest of revealing of a hypertrophy of a myocardium of both ventricles with predominance of a hypertrophy of a left ventricle (34%). Allocation of localization ECG – a determined hypertrophy from the general number of cases is received as follows. The hypertrophy of both ventricles has made the greatest interest – 52% that it will be easy to explain at more detailed studying frequency of revealing of informative attributes of a hypertrophy of a left ventricle.

Essential role in studying the adaptable processes arising in heart in reply to sports trainings, the researches which have been carried out with the help of a method of an echocardiography have played, allowed to state a quantitative evaluation of the dimensions of heart and to determine routes of acclimatization of heart to a hyperfunction which we perceive developments of acclimatization. Defined the dimensions of lumens of various chambers of heart, depth of an interventricular septum and a back wall of a left ventricle.

Thus it is important to pay attention, that both in it, and in other numerous echo – researches the mass of a myocardium and the dimensions of a left ventricle at an appreciable part of sportsmen did not fall outside the limits allowable fluctuations of the average parameters designed for unexercised persons, and, that is especially important, between bunch of unexercised persons with an average level has not been revealed authentic differences neither in size of a volume, nor in size of a masses while at sportsmen these parameters were authentically above.

Two important conclusions follow from these data: first, achievement is sufficient high sports results probably and without development of the expressed hypertrophy of a myocardium; second, average parameters of volumes of chambers and masses of a myocardium have rather circumscribed value in an evaluation of the individual data on a state of acclimatization of heart to exercise stresses.

Thus the sporting training, namely physical activity during her, notedly influences on the functional sportsman, in particular on the cardiovascular system, causing, here, either adaptation to her (forming «physiologically of sporting heart») or violations of work of heart of sportsmen, that requires the scientifically reasonable indexes of norm and pathology.

As a result of numerous researches there was obvious, that an obligatory presence of a hypertrophy of a myocardium as a parameter of a high level of a functional state of heart of sportsmen The fact of exposure presents scientific and practical interest during realization of our researches methodology of echocardiography of congenital heart disease (butterfly aortic valve instead of three-folding) for sportsmen with high digits (longterm employments). So, a student (sport master!) systematic passed physical electrocardiography examinations with inspection and an and echocardiography. As a result of researches a student, having a rank of sport master finished sport.

**Conclusion.** The approach to an evaluation of a hypertrophy should be changed.

#### Referens list:

- 1. Graevskaya, H.Д. Influence of employments sport on a heart. БМЭ, 3 publ.s. T. 23, 1984. P. 185–186.
- 2. Agajanyan, H.A. Comparative description of features of reactions of organism on influence of different extreme factors. // Ecology of man, 2004. № 2. P. 3–5.

# ANIMATEDEXCURSIONS IN BELARUS

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Tourism in each country is a personification of boundless imagination of the people. Recently around the world distributed excursions with animation. Belarus is no exception. At this stage of the development of tourism in the country, animation excursions and programs can be called a phenmenon distributed or even mass. Belarus has a rich historical past, beautiful natural conditions, good specialists, working in tourism sphere, interested active tourists so the development of animated excursions is a new trend, and the research, which examines this stream of tourism, looks actual.

The goal of the research is analysis the level of development of animated excursions on the territory of the Republic of Belarus.

Material and methods. When writing this article the works of domestic scientists were used. In this research are described main directions of excursions with animation and their development on the territory of Belarus, internet websites of tourist complexes. In there search were used the following methods: descriptive and analytical, statistical, comparative, methods of analysis and synthesis.

**Results and discussion.** Excursion with animation – is excursion, which is accompanied by a variety of theatrical performances, and tourists are becoming participants of events. The excursion of this kind allows not only see the sights, but also to maximize dive into one or another historical epoch. This excursion, apart from inspection and visit iconic places, includes costume show program, thematically related to the main line of excursion. For example, tourists can see the real joust, or royal feast, help implement of prince escape from the dungeons of the castle or try themselves in the role of an apprentice blacksmith. In addition to the spectacular show and fascinating excursion the guests have an opportunity to train in archery or crossbow (musket, cannon), throwing copies. As a rule animation programs include medieval games, performances by musicians and dancers, fitting knight's armor for a photo session [1].

As it propagates of animation tours experts suggest, that such excursions can be interesting for different age groups: school children, students, adults. Programs of this kind will be interested for visitors from abroad, for whom this is an excellent opportunity to feel the scale of certain significant tragedy for territory of Belarus, plunge into the features of the Belarusian mentality and to know cultural traditions.

In Belarus first excursions with animation appeared in Lida. They were unique. Those theatrical performances were held during an excursion within the walls of a medieval castle. Animation program "Jagiello Wedding", "Court Keistut", "Rushenne at Grunwald" offered by Lida tourist company "Svyatovit", quickly attracted the attention of tourists. The development of animation in Lida did not stop: in 2015 there was held an event called "Fair animations", organized by the company the "Address of the summer", which brought together the best animation teams of Belarus. On the territory of Lids Castle, they demonstrated their skills and surprised many viewers various programs, many of which are based on Belarusian history, legends and folk beliefs [2].

Due to popular demand and animated tours every year there are novelties, which carefully prepared the country's tourist firms. For example, there are animated tours, which include a combination of presentation and master class on preparation of traditional Belarusian cuisine. Having gone in the tour of this kind, the tourist will be able to appreciate the beauty of the small Belarusian towns and enjoy all the "flavor" of the national cuisine. Programs offered by the country's tourist agencies, allow to present to visitors and residents of Belarus, history in the most accessible form. For example, there are animation programs, that enable get acquainted with the first prince of the Grand Duchy of Lithuania - Mindaugas, "see" how the state was formed and occupied a large territory on the map of Europe. Such programs can be created based on the life and activity of many historical personalities of the country.

Excursion "Gentry Rodovid" created the Minsk travel agency "Birtan Tour", built on a number of theatrical performances, called to revive the key moments of life of the gentry, to acquaint with its traditions, way of life and worldview. Animated tourism allows to "revive" excursions for a children's audience. For example, children's travel companies offer tours of the country, "Journey to the Enchanted Forest" and "Meet the Bogman". Theatrical part of the program "Journey to the Enchanted Forests in Zaslavl, and "Meet the Bogman" in the Berezinsky reserve. Programs for children as a rule include skillfully adapted the story, moving games, contests, prizes [3].

**Conclusion.** Summarizing, we can say that the animated excursions on the territory of Belarus are becoming more development. This sphere of modern tourism activities is very profitable, and allows to consider interests of the tour operators, tour agents and tourists. For representatives of tourist firms it is the opportunity to create a new competitive and attractive tourist product, and for tourists – to diversify a trip with new impressions and emotions. Also, the animated nature of the programs, allows to estimate the identity of the Belarusian people, its history and culture.

## Referens list:

- 1. Excursions with animation in Belarus // Belarussian excursion portal [electronic resource] Access mode: <u>http://www.ekskursii.by/</u>. Access Date: 29.10.2016.
- New animation program travel agencies in 2015 // News TUTbuy [electronic resource]
   Access mode: <u>http://www.tio.by/.../</u> Access Date: 28.10.2016.
- 3. Animation // Birtan tour [electronic resource] Access mode: <u>http://birtantour.by/</u>. Access Date: 29.10.2016.

## THE PLACE AND THE ROLE OF BELARUSIAN HEALTH RESORTS AT THE INTERNATIONAL TOURISM MARKET

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Recreation treatment in Belarus has been and remains dominant. Health resorts and recreation houses with treatment services keep a positive trend, which gives evidence of the remaining adherence of people to the recreation at resorts.

The relevance of the study of Belarusian health resort complex is determined by its increased role in the economics and social sphere of the country, as well as the changes which have occurred in the market of health resort services, the development of interregional and international cooperation.

Moreover, the importance of the selected topic is determined by the fact that people's health is a key component of the quality of life of the population and one of the most effective means of its strengthening is the recovery in the health resort environment. The significance of spa treatment is determined by the current process of premature ageing of the population and high levels of its morbidity.

Currently, the choice of a health resort is mostly determined by the conditions of accommodation and entertainment, which are supplemented by treatment courses. Both travel agencies and resorts use the same infrastructure and the same objects of social and cultural infrastructure, so they are interested in their improvement.

The purpose of the present study is to determine the role and place of health resort institutions of the Republic of Belarus in the international tourist market.

Material and methods. The research is based on the statistics that describe the current position and role of health resorts in Belarusian economy. The methods employed include the descriptive method, synthesis and analysis.

**Results and discussion.** Owing to its unique therapeutic recreation and resource potential, the rich traditions of the organization of medical and health tourism and a sufficient level of infrastructure development, the health resort branch of economy is the core of the tourist complex of Belarus.

Belarusian health resorts are gradually integrated into the international tourist market system, carrying out the export of spa tourism products to the markets of neighbouring countries and mostly to the Russian market. A steady positive dynamics of the number of foreign tourists visiting Belarusian health resorts is observed: 2003 - 1.3 thousand people, in 2006 - 28.5 thousand, in 2007 - over 35 thousand, in 2008 - 80 thousand of foreign

tourists. The number of Belarusian health centres which hosted foreign tourists in the period from 2003 to 2008 increased more than 46 times. According to primary data of the National Centre for Health Improvement and Resort Treatment, the income of the health resort branch of economy as a result of hosting foreign tourists accounted for 60 billion roubles (28.3 million US dollars) for 9 months of 2008, twice the corresponding figure in 2007 [1].

Foreign markets form an increasingly important segment of the demand for Belarusian health resort tourism product. This is proved by the positive dynamics of the share of foreign tourists in the structure of the Belarusian consumers of health resort tourism products: in 2003 this figure did not exceed 0.2% and reached an average of 5% in Belarus in 2006. The export orientation is not caused by insufficient domestic demand, but by higher profitability resulted from the hosting of foreign tourists due to the existence of the boost price coefficient for foreign tourists in the majority of Belarusian health resorts, as well as their higher effective demand for extra chargeable services. However, the process of export orientation in the promotion of health resort tourist product is developed unevenly, covering mainly the most successful resorts of the country.

Among the different types of health centres of the republic, the export orientation of tourism services is peculiar primarily to health resorts; they take almost 80% of tourist traffic of foreign consumers of spa tourism products. This is due to the higher level of services at Belarusian health resorts and their infrastructure in comparison to other types of resorts, as well as their more active advertising and information activities in the neighbouring markets. In the leading Belarusian health resorts this figure exceeds 50% [2].

For example, according to the marketing department of Yunost health resorts, the average share of foreign tourists in this health resort is about 80%, and in some periods it reaches the level of 90% and among foreign tourists, citizens of Russia considerable predominate, the proportion of guests from the Baltic countries is also very high. According to the marketing department of Borovoe health resorts, the share of foreign tourists is 50%, among which the citizens of Russia predominate; there is also a high proportion of guests from other CIS countries [1].

One should notice the unilateral export orientation of spa facilities mainly to the Russian market. The competitiveness of Belarusian health resort products at the Russian market is determined by the combination of reasonable prices and high quality of medical services, as well as the attractiveness of the landscape and the climate conditions of the country, the safety factor, the lack of language and visa barriers. Russian tourists form about 70% of tourist traffic of foreign tourists, while the proportion of representatives of other countries (Lithuania, Latvia, Poland and Germany) is relatively low [2].

**Conclusion.** Thus, we can draw a conclusion that this type of tourism occupies an important place in the development of our country. There is a big number of health resort facilities of various profiles and categories on the territory of the Republic of Belarus. All of them are very popular with the citizens of our country and foreign residents. The main sources of attraction of foreign citizens are medical resources and low-cost services.

However, to attract even more tourists, our country needs to improve the quality of medical services, develop the level of infrastructure and services, to upgrade the qualification of experts, to develop a legal framework for organization of entry tourism for foreign residents. Therefore, in spite of the fact that the popularity of the Belarusian health resorts abroad is growing, the role of the health resort complex of Belarus in the export of national tourism product remains insignificant.

#### Reference list:

- Туризм и туристические ресурсы Республики Беларусь: стат. сб. / State Statistics Committee of the Republic of Belarus; editorial commission: E.I Kukharevich [and others]; – Minsk, 2012. – 105 p.
- 2. Лечебно-оздоровительный туризм в Беларуси / O. N. Batian [and others]; Belarusian State Economic University // Medical knowledge. 2013. No. 3. P. 26 30.

## HISTORY OF OCCURRENCE OF HOTELS, AS MEANS OF ACCOMMODATION

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Tourism as the area of business which has turned today to a huge multichannel way of reception of the accruing financial streams providing milliard world tourist streams. It is important to note, that in a modern society tourism becomes all more favorable environment, in which the society uses all saved up by the person cultural-historical value and recreational resources. Tourism in its present type becomes the original bridge on which people start all to overcome space and time more successfully. As one of the most important components of tourist area the infrastructure: means of accommodation, catering facilities, entertaining complexes. Studying of separate components of tourism, history of their occurrence and progress is an object of interest not only for theorists of tourism, but also for tourists, so the subject matter of the research is actual.

The aim of article is studying history of occurrence of hotels, as means of accommodation.

**Material and methods.** The official web sites of leading network hotels, the researches of domestic authors, the articles of a tourist orientation,

as well as the following methods: descriptive and analytical, statistical, comparative benchmarking, methods of analysis and synthesis were used in this research.

**Results and discussion.** Today the industry of hospitality is a powerful system of facilities of region or the tourist center and is an important component of economy of tourism. The industry of hospitality is made with various means of collective and individual accommodation: hotels, motels, youth hotels and hostels, apartments, tourist farm, as well as a private sector, fully participating in accommodation of tourists last year [5, p. 50].

Accommodation borrows central position in a complex of the services, provided to tourists during travel, and is an integral part of each round. Consequently, the important problem for the state, which sees prospects of progress of tourism, is progress of a hotel facilities.

The prototype of modern hotels has appeared in an antiquity. In the east for travelers offered a lodging for the night even more than for 2 thousand years up to B.C. And during an epoch of antiquity for state employees who sent with the special task, special buildings which very much remind inns have been constructed along the main roads. In Middle Ages the role of hotels was incurred with monasteries. According to the church charter, they have been obliged to provide free-of-charge shelter and to feed numerous pilgrims who made campaigns in sacred seats. When in 1530th English king Henry VIII has translated the church property in secular, travelers have been compelled to stop on inns. The following stage assisting progress of hotel facilities became the post horse message. In the Europe along post lines they began to build inns which were prototypes of motels. Here travelers could have a rest, eat, change horses, as well as conclude commercial deals as at court yard often there were trading numbers, bench, constitutions [1, p. 120].

The word "hotel" appeared in the XVIII century in France. The so-called apartment building, the rooms which were given on different period of time. The name stuck in America where the owners of the taverns and Inns had sought to betray their establishments aristocratic French chic. In the United States there has been a rapid development of hotel business where due to the continuous flow of emigrants hotels were constantly in demand. In 1794 in New York was opened the first hotel "city hotel," and in 1829 in Boston appeared first luxury hotel – "Tremont". Since then, luxury hotels, many of which were real masterpieces of architectural art and has been equipped with all possible in the time provided, began to appear in the Old world. They became the place of millionaires and aristocracy, the entertainment which in the late nineteenth – early twentieth century began to travel abroad [1, p. 130].

A significant contribution to the development of hotel business has made two hotel managers – the Swiss Cesar Ritz and American Ellsworth Statler. Their attentiveness and dedication allowed to make many discoveries in this field. So, C. Ritz proposed to place in the restaurant orchestra. E. Statler, had introduced uniforms for the staff. He proposed to install in each room, telephone, large mirror, lights over the beds. The famous saying "the Customer is always right", which became the slogan of the entire service sector, belongs to E. Statler [4, p. 36].

After the Second World War special popularity began to use the hotel network, the first of which was the international network of Hilton. The appearance of networks were required by globalization processes. Thus, worldwide, there were hotels, services which are not inferior to each other regardless of location [2].

Today, the most well-known international hotel chains are holiday Inn, "Choice", "Best Western", "MARRIOTT", "Hilton", "Sheraton".

The means of accommodation is in a central range of services which are provided to tourists during travel, and are an integral part of each tour. Accommodation facilities, which are any object that regularly or occasionally provides a place for the night, are the basis of tourism industry. Accommodation facilities are buildings of various types and types, adapted especially for the reception and organization of overnight temporary visitors with different levels of service. They account for up to 65% of persons employed in the tourism sector, and about 68 % of all revenues from tourism. The construction of new accommodation facilities significantly increases the attractiveness of a tourist destination, increase the flow of tourists. High service of providing accommodation services also defines such psychological aspects of tourism, satisfaction of the journey and appreciation of the organization of stay of tourists in the country [3, p. 300].

**Conclusion.** Accommodation of tourists is the key element of any tour. The very first placing the company – taverns and Inns that existed in ancient times. The future of the hotel industry is linked to its globalization. Given current trends in the development of international trade and tourism, it is easy to predict in what direction will develop the international hotel corporations. It is expected that the tourist flow in the Pacific region will increase in the same proportions that in the past few years. In this regard, the planned development of resort hotels in Indonesia, Malaysia, Thailand, Vietnam and Mexico [2]. There are also prerequisites for further development of the hotel industry in the countries of Eastern Europe, including Belarus.

#### Reference list:

- 1. Alexandrov, A. International tourism/ A. Alexandrova. M.: Proc. manual for schools, 2001. 337 p.
- Lynchings, A. Hotel business // Library I2R.ru [Electronic resource]. Mode of access: <u>http://i2r.ru/static/263/out\_5082.shtml</u>. Date of access: 11.10.2016.
- 3. Chudnovsky, A. Tourism and hospitality management/ A. Chudnovsky. M.: Yurkniga, 2005. 448 p.
- 4. Ephraim, M. Basics of tourism business/ M. Ephraim. M.: Proc. Handbook, 1999. 192 p.
- 5. Kvartalnov, V. Tourism/ V. Kvartalnov. M.: finances and statistics, 2002. 320 p.

# ACTIVE FORMS OF TOURISM IN THE REPUBLIC OF BELARUS

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In today's world technology has long infiltrated every spheres of public life. They are gradually replacing many of its most important aspects, altering not only the sphere of work, but also communication. However, remain unchanged are necessary for each person things like rest and sport. One of the most common forms of recreation is tourism.

Currently in tourism more relevant and demanded are the active forms of tourism, as consumers often do not have enough adrenaline and extreme. For extreme now appears special and increasing interest as this are sport, health and movement. The modern tourist still has no specific idea of active kinds of tourism, many people do not realize the fullness of proposals, all services, including the concepts of active tourism, in this regard, this study seems actual [1].

The purpose of the research is the analysis of the level of development of active tourism on the territory of the Republic of Belarus.

**Material and methods.** In writing this work were used article, describing the basic directions of active tourism and its development on the territory of the Republic of Belarus, the Internet sites of tourist complexes. The study were used such methods like: descriptive and analytical, statistical, comparative benchmarking, methods of analysis and synthesis.

**Results and discussion.** Active tourism can be considered as a prospective direction in sphere of recreation and entertainment. Many people, especially those who live in economically developed countries, not enough thrills. A man arranging his life and protect himself from natural disasters, begins to realize that he did not have enough adrenaline.

Specific definition of what can be considered active tourism does not exist. Most of the researchers noted that active tourism – a journey based on the active movement on any route with great physical exertion. These routes can be varying degrees of complexity. Traveler can use a bicycle or horse and even go on foot. The most popular forms of active tourism are: horse riding, cycling, mototourism, speleotourism, skiing [1].

Over the past few years in sphere of tourism there are many new brands of entertainment and activities, including exotic options for spending of free time. Innovative directions in the active tourism are a theatrical entertainment ("military tourism" travel in style "Indiana Jones") and also historical and scientific research (archaeological, geological, paleontological, ornithological tourism) [2].

Currently active tourism is one of the most perspective kinds of tourism, which attracts a large number of people. Due to these appear new places for

recreation. Some of them were made by a human (ski resorts) and some places were created by nature, such as caves.

Today, our country can be proud of a sufficient number of sports venues and special events dedicated to active recreation. Active forms of recreation are gaining popularity among ordinary tourists.

Active tourism is a combination of active recreation (rafting, hiking, biking) and interesting excursions. It should be noted that there is a whole industry of adventure tourism – Adventure Travel. It defined requirements for the organization of tours and safety, clothing, gear, food. In fact, active tourism can be considered as a separate layer of the tourism business. The peculiarity of this kind of tourism is a contact tourists with untouched, primeval natural environment. In Belarus, adventure tourism starts to develop rapidly the last few years [2].

There are some of examples of active tourism in Belarus. So, on the lake Dolgoye tourists can diving. Lake attracts lovers of this sport for its unexplored karst caves, where the tourist can find weapons of World War II. In addition, tourists can go fishing. So it is possible to combine several types of leisure activities in one trip [3].

Another example of active tours in Belarus can be a windsurfing on the Zaslavsky reservoir. Minsk Sea (also known as the Zaslavskoye Reservoir) is a real Mecca for windsurfers of Belarus. This sport is actively supported by government. Experts say that this place is ideal for riding with a sail: the reservoir is located on a hill and the water is pumped into it from below. Above, at the same time, quite a strong wind is blowing. For example, in Russia there are no such places. Thus Zaslavskoye Reservoir is a large pond with area in 30 square kilometers, with little depth - on average about four meters [3].

A lot of attention in active tourism is paid to water sports, in this context, in this work we want to give one more example of the Belarusian adventure tourism - kayaking on the river Heine. There are no dangerous places for rafting in Belarus, and this fact satisfies the requirements of amateur canoeists. 30-kilometer section of the river Heine from Logoysk to place where it flows into the Berezina River near the village Sutoki is a good offer for active recreation [3].

Despite that there are no mountains in Belarus, in country developing mountain tourism, thanks to the two large complexes - Logoisk and Silichi. These tourist facilities offer a route with multiple difficulty levels. Part of the complex is designed for beginners and amateurs, in consequence of that this tourist centers are popular among Belarusians and visitors from abroad, mostly Russians [3].

These facilities are equipped on a European level and offer customers a wide range of services, chief among which stands and equipment rental. In summer Logoisk and Silichi complexes offer mountain biking, quad bikes, roller skates. The distinctive feature of this complex is a well-developed infrastructure and close location to capital of the republic, which allows guests to combine active outdoor recreation and cultural tourism. Among the infrastructure necessary to note the variety of accommodation and also recreational procedures that offer complexes.

Also attractive for tourists looking new offer active recreation in Grodno, where were created conditions for mountain biking (mountain cycling). The new road, safety barriers, nets, doctors on duty are the basic range of services for such facilities [3].

**Conclusion.** Summing up, it should be noted that active and adventure tourism can become one of the major tourism activities in the Republic of Belarus, and in some regions provide the basis for stable economic development. Active recreation in nature, combined with obtain knowledge enables people who are tired of the impact of technogenic environment, not only regain their strength, but in general – the harmony in its outlook. Besides, as we mentioned earlier, in the Republic of Belarus for the tourist offers a wide range of objects for engage in active types of tourism.

#### References of list:

- 1. Some tendencies of development of adventure tourism in modern // Student scientific forum [electronic resource] Access mode: http://www.scienceforum.ru/2015/1257/15037 - Access Date: 11.10.2016.
- Innovation in socio-cultural service and tourism Tour // Tourism library [electronic resource] Access mode: <u>http://tourlib.net/books\_tourism/izotova3-1.htm-</u>. Access Date: 20.09.2016.
- Five of the best places for adventure tourism in Belarus // Official website of the Standing Committee of Union state [Electronic resource] - Access mode: <u>http://www.postkomsg.com/travel/205001/</u>. - Access Date: 05.10.2016.

# FUNCTIONAL STATE'S FEATURESOF STUDENTS-ATHLETES IN UNIVERSITY CONDITIONS

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The detection of physical adaptation peculiar qualities to the educational loads has a great importance for the students' health maintenance. The use of "Omega-M" complex and the elicitation ofheart rate's variability features is a normative criterion [1, 2] for an early detection of first-year students' processes of dysregulation and dysadaptation and as well as for an adequate educational processformation. At the same time, the similar studies of the area with the use of "Omega-M" hardware-software complex, in which the first-year students and even the students-athletes stand as a study object were not carried out in a scientific study. All this provides us a basis toconsider the possibility of applying a similar method of human body functionality assessment. Therebythe

study purpose was tolearn the functional state of the first-year students in university conditions according to the heart rate variability.

**Material and methods.** 56 Vitebsk State University's first-year students aged from 17 to 19 have participated in the research. All of them are students of Physical Education and Sport Faculty and Social Pedagogy and Psychology Faculty. The research was carried out during the intersessional period. To study the regulation of cardiac activity features there was conducted a registration of heart rate with the help of hardware-software complex "Omega-M".

**Results and discussion.** TheHRV analysis showed that the functional body condition of student-athletes and psychology students in the intersessional period by a combined indicator "Health", on average, is defined as good (Table. 1). However, the unsatisfactory values were recorded at the first-year students of two faculties, respectively -7.7% (Physical Education and Sport Faculty) and 25% (Social Pedagogy and Psychology Faculty). Satisfactory functional state was observed in only 7.7% of students-athletes. On a significant part of the surveyed (84,6% – Physical Education and Sport Faculty75% – (Social Pedagogy and Psychology Faculty) the"Health" indicatorwere good and excellent.

Table 1

Indicator	Physical Education and Sport Faculty	Social Pedagogy and Psychology Faculty	
	students n=28	students n=28	
HR, beats/min	74,57±11,5	88,75±8,79***	
A – the level of organism adaptation, %	77,37±21,16	71,26±20,23	
B – vegetative regulation indicator, %	83,19±23,16	70,0±23,67*	
B1 – regulation levels, %	76,08±30,9	70,0±23,7	
B2 – regulation reserves, %	72,1±25,2	79,4±16,1	
C – central regulation indicator, %	71,6±15,31	72,2±21,0	
D – psychoemotional state index, %	75,53±17,6	68,94±19,75	
Health – integral health indicator, %	76,92±18,58	70,6±20,61	

#### The indicators of students' functional organism state

Note: \* – differences between the groups are statistically significant at p < 0.05; \*\* – differences between the groups are statistically significant at p < 0.01; \*\*\* – differences between the groups are statistically significant at p < 0.001.

All five indicators under consideration (A, B, C, D, "Health") were in the unsatisfactory range in 25% of Physical Education and Sport Faculty students and 7,7% of Social Pedagogy and Psychology Faculty students. As a rule, the unsatisfactory value of the integral "Health" indicator was correlated with at least two or more equally low values of other indicators (A, B, C, D). More often athletes-students with satisfactory "Health" indicator had bad or unsatisfactory vegetative regulation rate (B). The first-year students of surveyed faculties with a good (50% – Social Pedagogy and Psychology Faculty, 53,8% – Physical Education and Sport Faculty) and excellent (25% – Social Pedagogy and Psychology Faculty, 53,8% – Physical Education and Sport Faculty) integral index levels of the functional organism state had also the other indicators (A, B, C, D) at the same high level.

As one of the integral indicators of organism fitness level is accepted the ratio of sympathetic and parasympathetic effects as a reflection of a balanced influence on the sinus node of the heart by the vegetative nervous system (B1 indicator). 15% of students-athletes and 25% of psychology students in the intersessional period this indicator corresponds to an unsatisfactory level. 15,4% of psychology students the B2 indicator was at bad and unsatisfactory level. B2\_is considered as indicator of body's reserves and expresses the development of the balance (imbalance) sympathetic and parasympathetic influences on the HRV located on higher levels of system regulation. On the rest of the surveyed in the two faculties the body reserves are satisfactory (15.4% – Physical Education and Sport Faculty, 25% – Social Pedagogy and Psychology Faculty), good (30,8% – Physical Education and Sport Faculty 75% – Social Pedagogy and Pedagogy and Psychology Faculty) levels.

**Conclusion.** Thus, the changes in HRV registered among students of two faculties in the intersessional period indicate the presence of stress. However, the data obtained in athletes indicates marked adaptationshifts of the cardiovascular system, the predominance of parasympathetic activity in comparison with the students-psychologists.

## Reference list:

- Pitkevich, U.E. Diagnostic Algorithm application of software and hardware complex "Omega-C" in sports medicine: a monography / U.E. Pitkevich [and others.]. – Gomel, 2010. – 160 c.
- Novitskiy, P.I. The functional state of students with intellectual disabilities according to the heart rate variability / P.I. Novitskiy, E.S. Pitkevich, N.A. Makarova // Vesnik VDU imya P.M. Masherova. – 2014. – № 3 (81). – C. 18–23.

# POLESIE STATE RADIATION ECOLOGICAL RESERVEAS A TOURIST FACILITY

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A characteristic feature of the present stage of social relations is the intensive development of tourism. In addition to traditional classical forms of tourism, new directions, which often cause ambiguous attitude in the public eyes, are evolved. Dark, military, industrial and others forms may be includedin such unusual types. One of the new trends in tourism is the use of areas affected by the accident at the Chernobyl Nuclear Power Plant for the

organization of tourist activities. Due to the fact that in Belarus there are areas heavily affected by this tragedy, it is urgent to study the possibility of using these areas for tourism purposes.

The purpose of this article is to examine the Polesye State Radiation Ecological Reserve, as an object of tourist interest.

**Material and methods.** In writing this paper used the official website of the Polesye State Radiation Ecological Reserve and articles ofdomestic researchers as well as the following methods: descriptive and analytical, statistical methods of analysis and synthesis.

**Results and discussion.** Polesye State Radiation Ecological Reserve is located in the exclusion zone. The reserve was established 18July of the year 1988 in the territory of three most affected by the disaster areas of the Gomel region – Bragin, Narovlya and Khoiniki. The Chernobyl is located about 26 km away to the north and 14 km –in the east. The half of the territory is covered by forests, and the rest – by the floodplain, bushes, abandoned fields, grounds [1].

The purpose of the creation of the reserve was to preserve the gene pool and the species diversity of the local flora and fauna, management of radiation-ecological monitoring and radiobiology research in the contaminated area [1].

The unique nature whichwas not changedby people's activity for over two decades, an incredible abundance of animals, fishand rare plants attract the attention of tourists.

The reserve is home for over 40 species of mammals, 70 species of birds, 25 species of fish, among them about 40 species are rare or endangered. Reserve staff and researchers have noted that the number of these animals increases. In addition, Belovezhskaya bison were brought to the reserve and now their numbers are 26 individuals. Another feature of the reserve is that it is the only place in Belarus where Przewalski horses live. It grows 1251 species of plants and more than two-thirds of the modern flora of Belarus, 18 of them are listed in the International Red Book and the Red Book of the Republic of Belarus [2]. This fact can also be used for tourism, because it is a unique opportunity to see the diversity of wildlife in one place.

Polesye State Radiation Ecological Reserve attracts every year more and more tourists. In this regard tourist infrastructure wascreated, nature museum was opened, nature trail was designed.

In the museum visitors can see the nature of the stuffed birds that live in the reserve, a collection of insects, mammals, exhibits demonstrating the wealth of ecosystems Polesye State Radiation Ecological Reserve. As previously noted, the tourist nature trail was designed to show visitors how many animals and plants live on the reserve [3]. Thus, we can note that these services are a good basis for the development of scientific and ecological tourism. Another feature of the reserve is the fact that on its territory there are 96 abandoned settlements, where before the accident lived 22 thousand people, as well as several old mansions 16–19 centuries. To date, the evacuated settlements are a number of dilapidated buildings with evidence of past human life in these places. It keeps the folk traditions, historical memory [4]. This fact suggests that in these areas can develop industrial, extreme tourism and stalkering (an extreme form of industrial tourism).

**Conclusion.** Polesye State Radiation Ecological Reserve – is an interesting target for the development of tourism. Thanks to a strict regime of protection, a lack of human activity, nature reserve area actually turns into a reserve for the conservation, restoration, enhancement of vulnerable and rare species. This is the base for the development of scientific and ecological tourism. Another important factor in the development of tourism in the reserve is the large number of ghost towns, with streets and houses where once people lived, it can contribute to the development of extreme and industrial tourism in the reserve.

## Reference list:

- 1. Reserve // State environmental research institution "Polesye State Radiation Ecological Reserve" [Electronic resource]. 2016. Mode of access: http://www.zapovednik.by/about/. Date of access: 01.11.2016.
- Poleski GREZ: // portal tourism potential OpenBelarus.ru [Electronic resource]. -2016. Mode of access: http://www.openbelarus.ru/polesskij-grez-turisticheskijpotencial/. -Date of access: 01.11.2016.
- Polesye State Radiation Ecological Reserve // All about leisure and tourism in Belarus [Electronic resource]. - 2016. Mode of access: http://probelarus.by/belarus/sight/nature/polesskiy\_gosudarstvennyy.html. -Date of access: 02.11.2016.
- Polesye State Radiation Ecological Reserve // Historical Geography [Electronic resource]. - 2016. Mode of access: http://geosfera.org/evropa/belorussiya/2118polesskiy-zapovednik.html. - Date of access: 03.11.2016.

# DEVELOPMENT OF WEDDING TOURISM IN VITEBSK

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Modern development of tourism assumes various forms and the directions of travel. Travel business tries to satisfy any inquiries of the clients. In recent years among youth wedding tourism enjoys special popularity, and wedding tours become more and more demanded. In this connection, the research directed to identification of the general tendencies of development of wedding tourism seems actual and perspective.

The purpose of this article is the analysis of development of wedding tourism and detection of relevance of implementation of similar tours in Republic of Belarus.

Material and methods. When writing this article the Internet resources, articles of domestic and foreign authors, and also the following methods: descriptive and analytical, statistical, methods of the analysis and synthesis, were used.

**Results and discussion.** First of all it should be noted that presently wedding tour means a travel to a honeymoon or it can be a wedding ceremony abroad in combination with a honeymoon. Earlier wedding ceremonies were in most cases held in the homeland of newlyweds. Today such ceremony can be held in an every spot on the globe. Such tourist direction first of all differs in accurately individualized program of future travel. Romantic hotels with magnificent numbers are servedas means of placement in similar programs. For newlyweds should be provided a wide choice of wedding dresses and suits. The program of such tour includes the organization of romantic dinners on the seashore, cruises and yacht trips and other attributes of romantic rest. As a rule, the special route depending on wishes of tourists is developed for young couple [3].

Undoubtedly, there are a number of the difficulties connected with the organization of wedding tours. Representatives of travel agency have to find beautiful places for holding ceremonies and the subsequent rest, agree with local government, develop romantic scenarios, be engaged in execution of all documents, invite photographers, stylists, leaders. At the organization of similar programs it is necessary to think over each detail and to try to consider all nuances. Abroad a number of hotels incorporate special numbers for newlyweds. In most the European hotels champagneis served to newlyweds in the room, and theroomis decorated with flowers. In East countries on the eve of the wedding the groom and the bride can have special massage. Unlike usual tours honeymoon trips are differentlyorganized. Special rooms are provided to young couples, meetings with friends are organized for them, banquets and all these actions are fixed by the skilled photographer. All range of services, included in tour has to stimulatepleasant impressions [3].

The last yearsmarriage registrationabroad becomes rather widespread phenomenon. In that case, for tourists the whole package of documents is made out. Thesedocuments differ from the documents necessary for the organization of an ordinary travel. Moreover, the list can have many nuances depending on the country of following. Among the main documents necessary for marriage registrationabroad, experts allocate the following: Belarusian passport; birth certificate; the certificate on a divorce (if there was a divorce); the certificate on the death of the former spouse (spouse), under the corresponding circumstances; the certificate on change of a surname and a name, under the corresponding circumstances; a consent of parents to marriage (for persons under 18). Except these documents it could be various references – about marital status, non-conviction, mental health, about the permanent residence, the marriage contract [1, p. 115–117].

Programs of wedding tours often can include the additional services connected with direct holding a ceremony. So, marriage registrationcan be carried out on the basis of the museums, agrotourist complexes, public institutions. Most actively in this direction are museums which offer not just the place for carryingregistration, but also offer the whole programs showing the historical options of holding weddings reflecting rich spiritual culture of the nation. As example we would like to describe the ceremonies organized by the museums of the city. So, for example, Vitebsk Regional Museum offers for newlyweds the "Honeymoon Trip in the Museum". This program includes the registration ceremony, games, acquaintance to wedding ceremonies of Vitebsk region, rise on a town hall tower, "salute" in honor of newlyweds and wedding buffet [2].

One more example of holding an unusual wedding in the museum is theoffer of Vitebsk regional museum named after the Hero of The Soviet Union M. Ph. Shmyrev. The project means holding a wedding ceremony in the territory of a park zone of the museum with the greatest possible reconstruction of surroundings and historical realities of times of the Great Patriotic War. Elements of the Belarusian ethnographic wedding of the beginning of the 20th century and archival materials of holding wedding ceremonies in wartime in occupied territories are the basis for the scenario of an action. According to the scenario, future groom is a partisan, and the bride takes active part in activity of one of underground groups. On the action course young people pass symbolical tests, perform tasks which are an important emotional component of reconstruction. All programsare followed by national songs. During the action the meeting of headquarters of partisan group at which there a symbolical registration of marriage is provided, and newlyweds become owners of "the festive order on partisan crew on the former Vetryanoy Street in Vitebsk", which confirm marriage. The program is calculated approximately on one hour and can vary depending on wishes of newlyweds [4].

**Conclusion.** It is important to note such tendency as the increasing interest in wedding tourism. Young people are given an opportunity to go to a honeymoon trip, to hold an unusual ceremony, or to fasten the relations according to national beliefs and legends, to make a holiday an unforgettable, uncommon action. A large number of young couples go to a honeymoon trip to the European countries where it is possible to enjoy rich European culture and to see world sights. However, as practice shows, most of our compatriots prefer to register the relations in Belarus, and to other countries go to a honeymoon trip. In this regard unusual offers of the domestic museums

become actual and correspond to new tendencies of museology, among which it is possible to note museum marketing. The organization of wedding tours for Belaruscan act as the perspective direction of development of domestic and entrance tourism.

#### Reference list:

- 1. Birzhakov M. B. Introduction to tourism / M. B. Birzhakov. SPb.: Gerda, 2006. 299 p.
- 2. Vitebsk regional museum //Vitebsk regional museum [electronic resource]. 2015. Access mode: http://ratusha-vit.by/poleznaya-informaciya/brakosochetanie-v-vitebskoy-ratushe. - Date of access: 11.10.2016.
- All about tourism. Tourist library//All about tourism. Tourist library [Electronic resource]. - 2016. Access mode:http://tourlib.net/statti\_otdyh/svadebnyj-turizm.htm. -Date of access: 11.11.2016.
- 4. Regional museum named after the Hero of the Soviet Union M. Ph. Shmyrev // Vitebsk Regional Museum named after the Hero of the Soviet Union M. Ph. Shmyrev [electronic resource]. 2015. Access mode: shmyrev.museum.by/. Date of access: 11.10.2016.

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Scientific publication

# THE YOUTH OF THE 21st CENTURY: EDUCATION, SCIENCE, INNOVATIONS

Proceedings of III International Conference for Students, Postgraduates and Young Scientists

Vitebsk, December 6, 2016

Technical editor Computer design G.V. Razboeva T.E. Safrankova

Signed to print 23.11.2016. Format  $60x84^{1/16}$ . Offset paper. Conventional printed sheets 16,04. Published sheets 17,60. Circulation 47 copies. Order 152.

> Publiser and polygraphic processing – Educational Establishment "Vitebsk State P.M. Masherov University".

State Registration Certificate as publisher, printer and distributor of editions № 1/255 d/d 31.03.2014.

Printed by risograph of Educational Establishment"Vitebsk State P.M. Masherov University".210038, Vitebsk, Moskovsky Prospekt, 33.