



MINISTRY OF EDUCATION OF THE REPUBLIC OF BELARUS



Vitebsk State
TECHNOLOGICAL
UNIVERSITY

EDUCATION AND SCIENCE IN THE 21ST CENTURY

Articles of the
VIII International
Scientific and
Practical Conference

November 29, 2023

Vitebsk



MINISTRY OF EDUCATION OF THE REPUBLIC OF BELARUS

VITEBSK STATE TECHNOLOGICAL UNIVERSITY



Vitebsk State
TECHNOLOGICAL
UNIVERSITY

EDUCATION AND SCIENCE IN THE 21st CENTURY

Articles of the VIII International Scientific and Practical Conference

November 29, 2023

Vitebsk
2024

UDC 378
BBC 74.48

This edition includes the articles recommended for publication by the organizing committee of the VIII International Scientific and Practical Conference "Education and science in the XXI century".

In this edition the researches of VSTU scientists on the following directions are presented: industrial technologies and equipment; social and economic problems of education and science development in the 21st century; language education for specific professional skills.

Articles are typed from author's hard copies.

The editorial board doesn't responsible for the possible inaccuracies in the course of computer imposition.

Reviewers: Vankevich A., prof., doctor of science,
Ryklin D., prof., doctor of science,
Sovetnikova O., assoc. prof., PhD.
Kostyreva S., assoc. prof., PhD.

UDC 378
BBC 74.48

© УО «Витебский государственный
технологический университет», 2024

CONTENS

SECTION 1. INDUSTRIAL TECHNOLOGIES AND EQUIPMENT

- VISUAL COMMUNICATIONS IN EDUCATIONAL MARKETING 9**
Abramovich N., Glusova K.
Vitebsk State Technological University, Belarus
- RESEARCH OF SINGLE AND DOUBLE JERSEY FABRICS FOR PRODUCTS PROVIDING “DRY CLIMATE” CONDITIONS..... 13**
Bykouski D.I., Pankevich D.K., Charkovskij A.V.
Vitebsk State Technological University, Belarus
- RESEARCH OF CONSUMER PROPERTIES OF ECO-FRIENDLY NETTLE FABRIC 17**
Kayumova, R.F., Devyatyarova Y.M.
Ufa State Petroleum Technological University, Russian Federation
- INNOVATION IN FASHION DESIGN USING ARTIFICIAL INTELLIGENCE AND VIRTUAL REALITY..... 20**
Khlystou G.G., Tkachou A.A., Lednitskiy A.V.
Belarusian State Technological University, Belarus
- SMART CLOTHING FOR SAFETY AND HEALTH: INNOVATIONS FOR EMERGENCY SERVICES AND INDIVIDUALS IN CRITICAL SITUATIONS 24**
Khlystou G.G., Tkachou A.A., Lednitskiy A.V.
Belarusian State Technological University, Belarus
- MODERNIZATION OF RAILWAY STATION INTERIORS 27**
Molochko M., Samutsina N.
Vitebsk State Technological University, Belarus
- DEVELOPMENT OF AUTOMATIC LABELING SYSTEM..... 31**
Navumenka A., Zemirov K.
Vitebsk State Technological University, Belarus

**PSYCHOLOGY OF PERCEPTION OF LOOKBOOK DESIGN AS
ADVERTISING PRODUCTS FOR LIGHT INDUSTRY34**
Polyakova E., Popova A.
Vitebsk State Technological University, Belarus

IN VITRO BIOACTIVITY OF CALCIUM PHOSPHATE CERAMICS38
Shymanskaya H.N., Podsosonnaya A.D.
Belarussian State Technological University, Belarus

**SECTION 2. SOCIAL AND ECONOMIC PROBLEMS OF
EDUCATION AND SCIENCE DEVELOPMENT IN THE 21st CENTURY**

**BIG DATA AND ARTIFICIAL INTELLIGENCE TECHNOLOGIES
IN HR MANAGEMENT42**
Aliakseyeva A., BAO Yucai
Vitebsk State Technological University, Belarus

**COMPARATIVE ANALYSIS OF FREE ECONOMIC ZONES'
MANAGEMENT46**
Aliakseyeva A., DENG Jing
Vitebsk State Technological University, Belarus

THE LABOUR MIGRATION TRENDS IN CHINA51
Aliakseyeva A., LIU Guannan
Vitebsk State Technological University, Belarus

**QUALITY MANAGEMENT CONCEPT IN THE CONTEXT OF
DIGITALIZATION55**
Aliakseyeva A., Shpartova V.
Vitebsk State Technological University, Belarus

**DYNAMICS OF FOREIGN TRADE BALANCE OF CLOTHING GOODS
IN BELARUS58**
Bykau K.
Vitebsk State Technological University, Belarus

**CHINA'S INDUSTRIALIZATION: THE NECESSITY AND FEATURES
OF THE MODEL63**
Chen Shuai, Nikonova T.V., Chebotareva O.G.
Vitebsk State Technological University, Belarus

EFFICIENT TAX ADMINISTRATION.....	67
<i>Dombrovskaya E.</i> <i>Vitebsk State Technological University, Belarus</i>	
CLUSTER ANALYSIS OF REGIONAL INNOVATION POTENTIAL OF LATVIA, LITHUANIA AND BELARUS	71
<i>Gladevich J.</i> <i>Daugavpils University, Latvia</i>	
EVALUATION OF THE IMPACT OF EDUCATION AND PROFESSIONAL TRAINING	75
<i>LiuYang, Zaitseva O.V.</i> <i>Vitebsk State Technological University, Belarus</i>	
DEVELOP HUMAN RESOURCE MANAGEMENT IN THE DIGITAL ECONOMY.....	77
<i>Mao Yanhong, Zaitseva O.V.</i> <i>Vitebsk State Technological University, Belarus</i>	
MANAGEMENT OF ASSORTMENT POLICY OF THE ORGANIZATION IN THE CONTEXT OF DIGITALIZATION.....	79
<i>Podolyak V., Zaitseva O.V.</i> <i>Vitebsk State Technological University, Belarus</i>	
INTERNATIONAL INTEGRATION AS A FORM OF INTERNATIONAL COOPERATION.....	81
<i>Savetnikava V.</i> <i>Vitebsk State Technological University, Belarus</i>	
KPI: CHARACTERISTICS, INDICATORS, PECULIARITIES OF DEVELOPMENT.....	85
<i>Stalmashevskaya A., Zaitseva O.V.</i> <i>Vitebsk State Technological University, Belarus</i>	
UNEMPLOYMENT AND ITS CONSEQUENCES FOR THE ECONOMY OF THE REPUBLIC OF BELARUS.....	87
<i>Staselko V., Zaitseva O.</i> <i>Vitebsk State Technological University, Belarus</i>	
SYSTEM FOR MANAGING THE INVESTMENT ATTRACTIVENESS OF RUSSIAN REGIONS	92
<i>Tarasova E.V.</i> <i>Smolensk Institute of Economics is a branch of the private educational institution of higher education "St. Petersburg University of Management Technologies and Economics", Russian Federation</i>	

THE INFLUENCE OF ORGANIZATIONAL CULTURE ON HR MANAGEMENT98
Vankevich A.V., LI Yujian
Vitebsk State Technological University, Belarus

TYPES OF ANALYTICS: HOW TO APPLY THEM IN A BUSINESS103
Vardomatskaya E.U.
Vitebsk State Technological University, Belarus

MARKETING ANALYTICS AND ITS TOOLS107
Zaytseva E.N., Kasayeva T.V.
Vitebsk State Technological University, Belarus

FEATURES OF THE MARKETING MIX IN RETAIL111
Zhuchkevich O.
Vitebsk State Technological University, Belarus

SECTION 3. LANGUAGE EDUCATION FOR SPECIFIC PROFESSIONAL SKILLS

SPORT TOURISM INFLUENCE ON FOREIGN LANGUAGE LEARNING115
Andrenko K.V.¹, Demchyk T.S.¹, Kozlova N.I.²
¹A.S. Pushkin Brest State University, ²Brest State Technical University, Belarus

THE IMPLEMENTING PROBLEM OF COGNITIVE LINGUISTICS IN A FOREIGN LANGUAGE GRAMMAR TEACHING.....119
Baeva I.V., Kudryashova A.A.
Pskov State University, Russian Federation

INDIVIDUALIZATION AS A PRINCIPLE OF TEACHING GERMAN AS A SECOND FOREIGN LANGUAGE IN A HETEROGENEOUS UNIVERSITY STUDENT GROUP123
Belokurova E., Gadzhieva T.
Pskov State University, Russian Federation

COMPARATIVE ANALYSIS OF PROVERBS AND SAYINGS OF THE THEMATIC GROUP "FRIENDSHIP" (BASED ON THE MATERIAL OF ENGLISH, FRENCH AND RUSSIAN).....127
Bogemova O.V., Gruzdeva A.Yu.
Pskov State University, Russian Federation

PECULIARITIES OF TRANSLATING STRATEGIES IN CHILDREN'S FICTION (BASED ON THE SHORT STORIES OF R. GOSCINNY "LE PETIT NICOLAS")..... 131

*Bogemova O.V., Khanvelyan S.A.
Pskov State University, Russian Federation*

THE CONCEPT OF GOD IN CHRISTIANITY AND THE LANGUAGE 135

*Buyevich A.A.
Vitebsk State Technological University, Belarus*

MULTICULTURAL PROGRAMMING OF THE CAMPUS AND STUDENTS' CREATIVITY 139

*Bultseva M.A.
National Research University Higher School of Economics, Russian Federation*

PROSOCIAALLY MOTIVATED STUDENTS IN TEACHING PROFESSIONALLY-ORIENTED FOREIGN LANGUAGE..... 144

*Burdyko O.V.
Vitebsk State Technological University, Belarus*

PECULIARITIES OF THE RUSSIAN LANGUAGE FUNCTIONING IN THE POLYETHNIC SPACE OF DAGESTAN 148

*Gadghieva T., Belokurova E.
Pskov State University, Russian Federation*

SOME ASPECTS OF INNOVATIVE PEDAGOGICAL TECHNOLOGIES FOR PROFESSIONAL TRAINING OF TECHNICAL UNIVERSITY STUDENTS..... 151

*Izmailovich O.V.
Vitebsk State Technological University, Belarus*

ARTIFICIAL INTELLIGENCE IN MODERN SOCIETY: ETHICAL AND SOCIAL ISSUES 155

*Larina O.I., Kharlamenkova D.A.
State University of Management, Russian Federation*

EUPHEMISMS AND DYSPEMISMS IN ENGLISH- AND RUSSIAN-LANGUAGE MEDIA AS A REFLECTION OF SOCIO-HUMANISTIC PROBLEMS 160

*Maslova T.E., Grigorieva E.A.
Pskov State University, Russian Federation*

**DEVELOPING TAILOR-MADE MATERIALS FOR THE STUDENTS
OF MANAGEMENT AND ECONOMICS DEPARTMENT163**

Minasyan E.T., Goncharova V.V.

Plekhanov Russian University of Economics, Russian Federation

**EDUCATIONAL INFORMATION AND COMMUNICATION
TECHNOLOGIES FOR TEACHING FOREIGN LANGUAGES TO
STUDENTS MAJORING IN INFORMATION TECHNOLOGIES:
OVERVIEW AND APPLICATIONS167**

Palubinski P.S.

Belarusian State University of Informatics and Radioelectronics, Belarus

FILM DISCOURSE AS AN OBJECT OF LINGUISTIC RESEARCH171

Samuilova M.E., Bogatikova V.A.

Pskov State University, Russian Federation

**CONCEPTUAL REPRESENTATION IN ENGLISH AND RUSSIAN
LANGUAGES CULTURES172**

Stepanov D.A.

Vitebsk State Technological University, Belarus

**THE SIGNIFICANCE OF LOCAL COUNTRY STUDIES MATERIALS IN
TEACHING A FOREIGN LANGUAGE AT THE LEVEL OF SECONDARY
EDUCATION176**

Vasileva M.N.

Pskov State University, Russian Federation

**ABOUT THE FEATURES OF TEACHING A FOREIGN LANGUAGE OF
THE SILVER AGE REPRESENTATIVES WITHIN THE CONCEPT OF
LIFELONG EDUCATION180**

Yakovleva S.V.

Pskov State University, Russian Federation

**FEATURES OF REPRESENTATION OF THE GERMAN IN WORKS OF
RUSSIAN LITERATURE OF THE 18TH-20TH CENTURIES185**

Yakovleva S.V.

Pskov State University, Russian Federation

SECTION 1. INDUSTRIAL TECHNOLOGIES AND EQUIPMENT

UDC 7.067

VISUAL COMMUNICATIONS IN
EDUCATIONAL MARKETING
ВИЗУАЛЬНЫЕ КОММУНИКАЦИИ В
ОБРАЗОВАТЕЛЬНОМ МАРКЕТИНГЕ

Abramovich N. , Glusova K.*

Vitebsk State Technological University, Belarus

*e-mail: Abramovich@vstu.by**

Абрамович Н.А. , Глусова К.С.*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: gamification, mascot, educational sphere, game elements, motivation.

Ключевые слова: геймификация, маскот, образовательная сфера, игровые элементы, мотивация.

Abstract. The analytical study is devoted to the adaptation of new strategies of the learning process to the socio-temporal environment of generational development. The need to individualize the learning process, considering personal characteristics and needs to motivate cognitive abilities, including the development of cognitive and social skills through modern information technologies and visual communications, is considered.

Аннотация. Аналитическое исследование посвящено адаптации новых стратегий процесса обучения к социально-временной среде развития поколений. Рассмотрена необходимость индивидуализации процесса обучения с учетом личностных особенностей и потребностей для мотивации познавательных способностей, в том числе и развитию когнитивных и социальных навыков посредством современных информационных технологий и визуальных коммуникаций.

In recent years, gamification – the use of game elements in non-game environments – has become increasingly popular in the educational field. Its purpose is to stimulate the learning process, increase motivation and create a positive learning experience.

The main principle of game elements is continuous feedback from students, reinforcing their motivation and interest in learning, gradual immersion in the game topic without losing attention and passion. The following techniques are widely used: dynamics, when interesting scenarios and game plots alternate;

awards related to increased status, rating, public recognition of success; interaction, which refers to interaction through chat, group, audio and video conferencing [1].

The basis for the popularity of gamification can be found in the concept of generational theory, the founders of which were two American researchers – Neil Howe and William Strauss. In 1991, they developed a concept based on the common philosophies of people of different ages, releasing the book "Generations" [2].

The target audience for the process of gamification of learning is mainly the Digital generation (late 1990s – 2010s) or buzzers - these are modern youth and the future of our state. Sociologists predict that this generation will become the most entrepreneurial. In speed and mental development they are ahead of the previous generation. Like millennials, buzzers value diversification and self-expression. For them, the limit of the real and virtual world is practically erased, because the entire technological process has been with them almost from birth. Incorporating gamification into their education may be the key to creating a more effective and engaging environment for their learning. They already know how to engage in games, so it makes sense to use this familiar concept to help them reach new heights in their education. Games are inherently fun and exciting, making the learning experience more likely to become more game-like.

Another benefit of gamification in education is the ability to personalize learning. In 1984, psychologist Benjamin Bloom published an article in Educational Researcher that described the Two Sigma problem. It raised the question of the impact of personal training on student success. Students with one-on-one tutoring performed two standard deviations better than students with one-on-one tutoring with 30 students. This was enough to raise a person's test scores from 50 % to 98 % [3].

Thanks to game mechanics, you can customize training for each applicant, taking into account his level of knowledge, goals and interests, and provide individual feedback and support. Additionally, gamification in education helps develop a range of skills, including collaboration, critical thinking, problem solving, and communication. Training can be built on teamwork, solving problems and overcoming difficulties together. There is an opportunity to make decisions, analyze information and exchange ideas, which contributes to the development of cognitive and social skills.

One of the projects that has successfully used gamification in its system is Duolingo, an online platform for learning foreign languages, offering users interactive learning that builds on completed levels.

One of the key elements of successful gamification is the mascot, which plays an important role in motivating and engaging users [4]. For example, Duolingo uses a friendly green creature mascot known as "Duo". It appears on screen, inspires and complements the learning experience.

The indirect connection between the mascot and gamification is evident in how users are motivated to continue learning. The Duo mascot interacts with users on different levels, creating a pleasant atmosphere and involving them in the learning process [5].

Overall, Duolingo successfully demonstrates how gamification in education and the use of a mascot can significantly increase motivation and make learning more interesting and effective. The use of gamification in combination with the presence of a mascot becomes a powerful tool to help overcome barriers and achieve success in the educational process.

Mascots have become an integral part of the educational process in the modern educational sphere. A well-designed mascot can have a significant positive impact on the learning process, stimulating students to be active and creating a favorable learning atmosphere:

- firstly, mascots can serve as symbols or representatives of educational institutions, which contributes to the formation of a sense of belonging and attachment to a given educational institution. This creates a favorable basis for the learning process, since, feeling part of a community, there is motivation in acquiring knowledge and a positive attitude towards learning;

- secondly, mascots are able to evoke an emotional reaction and introduce elements of entertainment into learning. They can be bright, colorful and funny characters that help relieve stress and add variety to learning sessions. The presence of a mascot in lessons makes them more interesting and attractive for children, which helps to increase their involvement and learning of the material.

In addition, mascots can serve as a mentor or model student. Designed with fundamental principles of pedagogy in mind, a mascot can convey important values and skills. For example, a mascot that is friendly and approachable can help enhance students' social skills and develop empathy. At the same time, a mascot that is an example of a student who succeeds in completing tasks and demonstrates diligence can inspire children to achieve success and develop self-motivation.

Finally, mascots help create a positive and friendly atmosphere in the learning environment. They can become a symbol of a positive mood and introduce elements of play and joy into the educational process. Such an atmosphere helps to establish trusting relationships between teacher and students, and also has a beneficial effect on cooperation, communication and the formation of a positive team.

Thus, the high-quality development of a mascot in the educational field has a significant positive impact on the learning process. Mascots stimulate joy and interest in learning, promote better learning, develop social skills and create an atmosphere of trust and interaction. They are an effective tool that helps make the learning process more attractive and effective for students.

The challenges of the modern educational environment and the needs of the digital economy determine the need for systematic research regarding the

implementation of the didactic potential of using digital gamification resources to support the cognitive development of the individual and manage the cognition process. The basis of this approach should be a model of educational and cognitive activity that uses new digital technologies, provides tools for planning and predicting learning outcomes, takes into account the personal characteristics of students and contributes to the formation of a cognitive picture of the world that meets the requirements of society [6].

Through game elements, students can gain satisfaction from achievement and develop important skills. Proper integration of gamification will help turn the learning process into an exciting and dynamic experience for all participants.

However, it is important to remember that gamification must be properly integrated into the educational process. It should not just be a superficial addition of game elements, but should be purposeful and well thought out.

References

1. Геймификация в современном педагогическом образовании: атлас лучших практик [Электронный ресурс] / Е. В. Богданова, Е. А. Яровая, А. Н. Дахин, Ю. Н. Ковшова, М. Н. Сухоносенко [и др.]; Мин-во просвещения РФ, Новосиб. гос. пед. ун-т. – Электрон. текстовые дан. (1 файл pdf.: 1,3 Мб; 152 с). – Новосибирск, 2021 – Режим доступа: <https://lib.nspu.ru/views/library/91213/read.php> – Дата доступа: 4.09.2023.
2. Strauss, William; Howe, Neil. Generations: The History of America's Future, 1584 to 2069 (1 ed.). New York, 1991. – p. 540.
3. Bloom B. S. The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring // Educational Researcher. Vol. 13 – 1984, № 6 – P. 4–16.
4. Графический язык в дизайне. Абрамович Н. А., Столбанова Д. А. Тезисы докладов 55-й Международной научно-технической конференции преподавателей и студентов. Витебск, 2022. – С. 171–172.
5. Как устроен алгоритм Duolingo / [Электронный ресурс]. – Режим доступа: <https://rb.ru/story/kak-ustroen-algoritm-duolingo/> – Дата доступа: 4.09.2023.
6. Караваев, Н. Л. Совершенствование методологии геймификации учебного процесса в цифровой образовательной среде : [монография] / Н. Л. Караваев, Е. В. Соболева. – Киров : Вятский государственный университет, 2019. – 105 с.

UDC 677.025

**RESEARCH OF SINGLE AND DOUBLE JERSEY
FABRICS FOR PRODUCTS PROVIDING “DRY
CLIMATE” CONDITIONS**

**ИССЛЕДОВАНИЕ ОДИНАРНОГО И ДВОЙНОГО
КУЛИРНОГО ТРИКОТАЖА ДЛЯ ИЗДЕЛИЙ,
ОБЕСПЕЧИВАЮЩИХ УСЛОВИЯ «СУХОГО
КЛИМАТА»**

Bykouski D.I., Pankevich D.K. , Charkovskij A.V.*

Vitebsk State Technological University, Belarus

*e-mail: dashapan@mail.ru**

Быковский Д.И., Панкевич Д.К. , Чарковский А.В.*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: combined thermal underwear, jersey fabrics, single jersey fabrics, double jersey fabrics, plated jersey fabrics, fleecy jersey fabrics, plush jersey fabrics.

Ключевые слова: комбинированное термобелье, кулирный трикотаж, одинарный трикотаж, двойной трикотаж, платированное переплетение, футерованное переплетение, плюшевое переплетение.

Abstract. The paper compares experimental samples of single hybrid jersey fabric with samples of double jersey fabric used for the production of combined thermal underwear. Moisture exchange characteristics and thermal resistance of samples were investigated. It is found that the experimental samples are on par with the analogs in terms of moisture exchange characteristics or surpass them. It is determined that all experimental samples, except for the fleecy jersey fabric, are on par with the analogs in terms of thermal resistance.

Аннотация. В работе произведено сравнение экспериментальных образцов одинарного гибридного трикотажа с образцами двойного трикотажа, использующегося для производства комбинированного термобелья. Исследованы влагообменные характеристики и тепловое сопротивление образцов. Установлено, что экспериментальные образцы соответствуют аналогам по уровню влагообменных характеристик либо превосходят их. Установлено, что все экспериментальные образцы, кроме образца футерованного переплетения, соответствуют аналогам по уровню теплового сопротивления.

The following principles are used to create combined thermal underwear:

- use of double jersey fabric;
- manufacturing of the inner layer from moisture-wicking synthetic yarns;

– manufacturing of the outer layer from heat-saving and hydrophilic raw materials.

This creates a “dry climate conditions” for the body even in situations of excessive sweating [1, 2, 3]. In hybrid single jersey fabrics, it is also possible to form the front and backing sides from different yarns. Thus, it is reasonable to study the possibility of realizing the basic principles of creating “dry climate” conditions in single jersey fabrics. The use of single jersey fabrics will reduce the material intensity and cost of thermal underwear

Experimental samples of single jersey plated fabrics, single jersey plush fabrics, and single jersey fleecy fabrics were produced. It is reasonable to compare them with analogs traditionally used to create combined thermal underwear available on the market of the Republic of Belarus. Table 1 shows the characteristics of the experimental samples of single jersey fabrics. Table 2 shows the characteristics of the analogs. The analogs are double jersey fabrics.

Table 1 – Information about experimental samples of single jersey fabrics proposed for products providing “dry climate” conditions

Sample number	Raw materials	Structure
1	cotton yarn, polyester yarn	plated jersey fabric
2	cotton yarn, polyester yarn	plush jersey fabric
3	cotton yarn, polyester yarn, elastomeric yarn	fleecy jersey fabric
4	cotton yarn, polyester yarn, polyacrylonitrile yarn	fleecy plated jersey fabric

Table 2 – Information about samples of double jersey fabrics used for production of combined thermal underwear available on the market of the Republic of Belarus

Sample number	Raw materials	Structure	Manufacturer
5	cotton yarn, polyester yarn	double patterning part-threaded structure	JSC «Svitanak»
6	cotton yarn, polyester yarn	interlock structure	JSC «Svitanak»
7	cotton yarn, polyester yarn	double complex structure	JSC «Svitanak»
8	cotton yarn, polyester yarn, acrylic yarn	double complex structure	Laplandic
9	woolen yarn, viscose yarn, polyester yarn, acrylic yarn	double complex structure	Guahoo

Moisture exchange characteristics of materials are important factor for providing “dry climate” conditions. Three parameters were measured to estimate these characteristics:

- relative moisture absorption: the fraction of moisture absorbed by the material in 4 hours in contact with a wet surface, %;
- relative moisture transfer: the fraction of moisture that has passed through the material in 4 hours in contact with a wet surface, %;
- residual moisture: the fraction of moisture remaining in the material after 4 hours in contact with a wet surface, % [4, 5].

The ability to retain heat is also important for combined thermal underwear. The thermal resistance parameter is used to estimate this feature [6, 7]. During the investigation, the cooling time of the samples was measured from 37 °C to 27 °C. In the process of exploitation, the products absorb moisture, so it is reasonable to measure the thermal resistance of the samples in the moistened state. All samples were moistened with 300 ml of water and kept for 30 minutes under normal conditions before measurement. The experimental results are presented in Table 3.

Table 3 – Experimental Results

Sample Number	1	2	3	4	5	6	7	8	9
Residual moisture, %	85.09	87.22	70.24	87.29	86.27	85.57	86.64	89.09	91.94
Relative moisture absorption, %	9.35	6.49	20.85	6.8	7.84	8.79	7.06	5.22	2.88
Relative moisture transfer, %	5.56	6.29	8.9	5.91	5.88	5.64	6.3	5.68	5.18
Thermal resistance in the dry state, m ² ·°C/W	1.36	1.36	1.15	1.32	1.25	1.20	1.16	1.38	1.31
Thermal resistance in the moistened state, m ² ·°C/W	0.99	0.87	0.70	0.97	0.81	1.16	0.94	0.86	0.79

The table shows that there is a decrease in the thermal resistance of the moistened samples compared to the dry ones. In terms of thermal resistance value, all the experimental samples, except for sample No. 3, are on par with the analogs available on the market. For optimal “dry climate” conditions, minimum residual moisture and maximum relative moisture transfer are desirable. Thus,

experimental samples No. 2 and No. 4 are on par with their analogs available in the market, while experimental samples No. 1 and No. 3 outperform the analogs.

The research demonstrates that it is possible to create “dry climate” conditions for the body using hybrid single jersey fabrics, where the front and backing sides are formed from different yarns.

References

1. Колесников, Н. В. Исследование влаговыводящих свойств функциональных трикотажных полотен бельевого назначения / Н. В. Колесников // Известия высших учебных заведений. Технология текстильной промышленности. – 2012. – № 1 (337). – С. 15–17.
2. Кудрявцева, Т. Н. Производство функционального белья / Т. Н. Кудрявцева, Е. В. Шубина // – 2005. – № 3 (8). – С. 60–63.
3. Дашков, Т. К. Актуальные вопросы подготовки сотрудников органов внутренних дел к несению службы при экстремальных температурах воздуха / Т. К. Дашков, И. И. Нурутдинов // Подготовка кадров для силовых структур: современные направления и образовательные технологии : материалы двадцать шестой Всероссийской научно-методической конференции, Иркутск, 25–26 февраля 2021 года. – Иркутск: Восточно-Сибирский институт Министерства внутренних дел Российской Федерации, 2021. – С. 125–129.
4. Панкевич, Д. К. Сравнительная характеристика влагообменных свойств водозащитных материалов / Д. К. Панкевич // Инновационные технологии в текстильной и легкой промышленности : материалы докладов международной научно-технической конференции, Витебск, 26–27 ноября 2014 года / Витебский государственный технологический университет. – Витебск: Витебский государственный технологический университет, 2014. – С. 453–454.
5. Бунькова, Т. О. Исследование транспорта жидкой влаги текстильными материалами / Т. О. Бунькова, Т. В. Глушкова // Новое в технике и технологии текстильной и легкой промышленности: материалы международной научно-технической конференции. Витебск, ноябрь 2009 г. – Витебск: УО «ВГТУ» – С. 291–293.
6. Петюль, И. А. Исследование суммарного теплового сопротивления пакетов материалов альтернативными методами / И. А. Петюль, В. В. Сапелко // Вестник Витебского государственного технологического университета. – 2019. – № 1 (36). – С. 68–80.
7. Панкевич, Д. К. Оценка теплозащитных свойств мембранных материалов различных структур / Д. К. Панкевич, А. Ю. Мойсейчик // Материалы докладов 55-й Международной научно-технической конференции преподавателей и студентов : в 2 т. / УО «ВГТУ». – Витебск, 2022. – Т. 2. – С. 245–248.

UDC 676.038.3

**RESEARCH OF CONSUMER PROPERTIES OF
ECO-FRIENDLY NETTLE FABRIC**

**ИССЛЕДОВАНИЕ ПОТРЕБИТЕЛЬСКИХ
СВОЙСТВ ЭКОЛОГИЧНОЙ ТКАНИ
ИЗ КРАПИВЫ**

Kayumova, R.F. , Devyatyarova Y.M.***

Ufa State Petroleum Technological University, Russian Federation

e-mail: karuf1@yandex.ru , devnb@mail.ru***

Каюмова Р.Ф. , Девятьярова Н.Б.***

ФГБОУ ВО «Уфимский государственный нефтяной технический университет», Российская Федерация

Keywords: eco-friendly textile materials, nettle fiber and fabrics, consumer properties of nettle fabric.

Ключевые слова: экологичные текстильные материалы, волокно и ткани из крапивы, потребительские свойства ткани из крапивы.

Abstract. The ecological situation on the planet forces textile workers to actively look for eco-friendly, biodegradable and affordable raw materials for the production of clothing materials. A growing number of designers are turning to eco-friendly materials when developing their collections. More and more consumers prefer natural eco-friendly fabrics. There is an active search for alternative materials to cotton fabrics [1]. At the same time, nettle fabric is becoming more and more popular. The article presents the results of research on the consumer properties of nettle fabric in comparison with cotton fabric. The growing interest in nettle fabric requires the study of its basic properties.

Аннотация. Экологическая ситуация на планете заставляет текстильщиков активно искать экологичное, биоразлагаемое и доступной сырьё для производства одёжных материалов. Растёт число дизайнеров, которые обращаются к экологичным материалам при разработке своих коллекций. Всё больше потребителей отдаёт предпочтение натуральным экологичным тканям [1]. Идёт активный поиск альтернативных материалов тканям из хлопка. При этом всё более популярной становится ткань из крапивы. В статье приводятся результаты исследований потребительских свойств ткани из крапивы в сравнении с хлопчатобумажной тканью. Растущий интерес к ткани из крапивы требует исследования её основных свойств.

Currently, two main varieties of nettle are known: nettle dioecious and rami. The first grade is used for the production of coarse and thick yarn. The rami variety allows you to get a thin shiny silky fabric. Nettle is an unpretentious plant that does not require the use of herbicides, abundant watering. Nettle

material has antibacterial properties, allows a person to feel comfortable at high and low ambient temperatures.

In Russia at the end of the 19th century, clothes made of nettle fabric were sewn by the peoples of the North (Khanty and Mansi). Nettles in Russia were called "forest wool". Coarse and durable nettle yarn was used to make sails and bags. In the USSR, cheap costume and coat fabric was made from nettle called "cheviot". Military and school uniforms were made from it. Now nettle is also in demand for the manufacture of special clothing [2].

In Europe, the nettle of the Rami variety is mainly used, a thin shiny fabric is in demand by designers in modern collections [3].

However, the consumer properties of nettle fabric have not been studied enough.

The consumer properties of nettle fabric were investigated in comparison with cotton fabric. Previously, an expert survey was conducted among potential consumers of hemp clothing. It was proposed to note the most important properties of nettle fabric from the consumer's point of view. As a result, the most important properties included the following: thickness, surface density, tensile strength and elongation, drapery, indelibility, abrasion resistance and breathability.

Further, mechanical and physico-chemical properties of a series of hemp tissue samples were tested in laboratory conditions. The results of the conducted studies are shown in Table 1.

Table 1

Material of the sample series	Thickness, mm	Surface density, g/m ²	Shrinkage after washing, %. Warp/weft	Tensile strength, N	Elongation at break, %. Base/weft	Abrasion resistance, cycles	Breathability, dm ³ /m ² ·s (p = 49 Pa)
Nettle fabric	0,19	140	1,5/1	371/296	5/18	After 5000 cycles, external signs of wear	690
Cotton fabric	0,20	148	2,5/1,5	273/101	7/22	After 2750 cycles, there are noticeable signs of surface wear	480
Testing Equipment	Automatic Digital thickness Gauge TF121C	GAUGE Laboratory scales VIBRA ALE-2202	Washing Fastness Tester. TF418	Breaking machine RM-250		Martindale Abrasion and Pilling Tester. TF210-A F 210A	Electronic device for determining the breathability of textile materials SA 164 E

To compare the properties, samples of cotton fabric and fabric made of 100% nettle of plain weave, similar in surface density, were selected. Nettle fabric was dyed with natural dyes. The results of the study showed that nettle fabric has a high tensile strength compared to cotton fabric, while elasticity is very low. This is consistent with the results obtained by foreign researchers [3–5]. During the abrasion tests after 5000 cycles, signs of surface wear and a 10 % decrease in the mass of the samples were revealed. The wear resistance of nettle fabric significantly exceeded that of cotton fabric (see table 1).

A high air permeability index was also obtained, which confirms the exceptional comfort of the fabric for the manufacture of clothing. At the same time, the nettle fabric is heavily wrinkled and draped poorly.

Thus, according to a number of indicators of physical and mechanical properties (strength, wear resistance, breathability), nettle-based fabric is superior to cotton fabric, which means it serves as an excellent alternative to cotton materials [6]. The results of the conducted research can be used for the reasonable design of modern nettle products.

References

1. Kayumova, R. F. Assortment management at small enterprises of light industry of the Republic of Bashkortostan // *Izvestiya vuzov. Textile Industry Technology* – 2018, № 1 (373). – P. 10–14.
2. Kayumova, R. F. Research of ergonomic and operational properties of special clothing for oilmen / R. F. Kayumova, O. N. Budeeva // *Design and Technology* – 2018, No. 68 (110). – P. 23–28.
3. Subhankar Maity. Thermal Resistance and Moisture Management Behaviour of Nettle/Polyester Nonwoven Fabrics. – /*Tekstilec 2019.62* // *Tekstilec*. – 2019. N 62(4). – P. 258...268. [Electronic resource] URL: http://www.tekstilec.si/wp-content/uploads/2019/11/10.14502Tekstilec_2019.62.258-268.pdf (accessed 28.08.2023).
4. Pallavi Sunil Gudulkar. List of Eco-friendly Fibers in Textile Industry: Properties and Application [Electronic resource] URL: <https://textilelearner.net/eco-friendly-fibres-in-textile-industry/> (accessed 28.08.2023).
5. Applications of Nettle Fibre in Textile: A Brief Review / Kartick K. Samanta, A. N. Roy, H. Baite // *International Journal of Bioresource Science*. – 2021, N 08 (01). – P. 39 <https://www.renupublishers.com/images/article/IJBSv8n1f.pdf> (accessed 30.08.2023).
6. In ten years, people will wear Nettles // *Art.TheLib.Ru* : [site] – 2006–2023. – URL: https://art.thelib.ru/science/inventions/chez_desyat_let_lyudi_odenutsya_v_krapivu.html (accessed 01.08.2023).

UDC 745:004.8:004.946

**INNOVATION IN FASHION DESIGN USING
ARTIFICIAL INTELLIGENCE AND
VIRTUAL REALITY****ИННОВАЦИИ В ДИЗАЙНЕ МОДЫ С
ИСПОЛЬЗОВАНИЕМ ИСКУССТВЕННОГО
ИНТЕЛЛЕКТА И ВИРТУАЛЬНОЙ
РЕАЛЬНОСТИ****Khlystou G.G.* , Tkachou A.A.** , Lednitskiy A.V.******Belarusian State Technological University, Belarus**e-mail: gleb.offical@gmail.com* , tk2007m@mail.ru** , ledniz@inbox.ru******Хлыстов Г.Г.* , Ткачѳв А.А.** , Ледницкий А.В.******Белорусский государственный технологический университет,**Республика Беларусь**Keywords: clothing, design, artificial intelligence, virtual reality, technology.**Ключевые слова: одежда, дизайн, искусственный интеллект, виртуальная реальность, технологии.*

Abstract. This article explores the potential of using artificial intelligence (AI) and virtual reality (VR) in fashion design. The modern fashion industry is faced with problems associated with the need to attract the interest of the end consumer by creating something new, as well as introducing modern technologies. This study proposes the integration of AI and VR into the fashion design process to stimulate creativity and facilitate the development of new and original designs, as well as the adoption of modern technologies. Machine learning and deep learning algorithms used in AI can analyze vast amounts of data about fashion trends, consumer preferences and historical influences to offer designers new ideas and style variations.

Аннотация. Данная статья исследует потенциал использования искусственного интеллекта (ИИ) и виртуальной реальности (ВР) в дизайне одежды. Современная индустрия моды сталкивается с проблемами, связанными с необходимостью привлечения интереса конечного потребителя путем создания чего-то нового, а также внедрения современных технологий. В данном исследовании предлагается интеграция ИИ и ВР в процесс дизайна моды для стимулирования креативности и облегчения разработки новых и оригинальных моделей, а также внедрения современных технологий. Алгоритмы машинного обучения и глубокого обучения, используемые в ИИ, могут анализировать огромные объемы данных о модных тенденциях, предпочтениях потребителей и исторических влияниях, чтобы предложить дизайнерам новые идеи и вариации стилей.

Integrating virtual reality into design

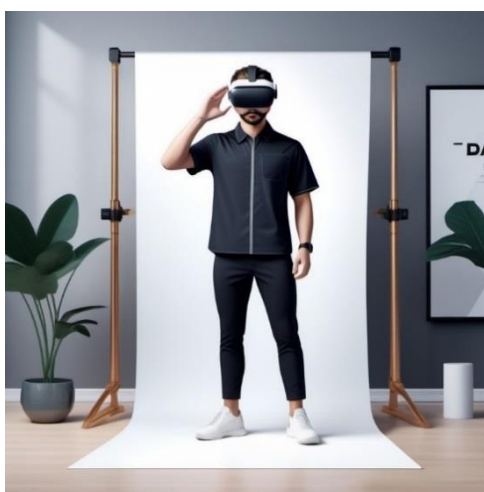
Integrating virtual reality (VR) into design will allow designers and consumers to interact with clothing in a virtual environment, opening up a new way for creativity and customer engagement.

One of the key benefits of integrating VR into design is the ability to create 3D virtual clothing models. With the help of special programs and VR technologies, designers can translate their ideas into realistic three-dimensional models that can be viewed from all angles. This allows you to more accurately imagine what the finished product will look like and make necessary changes before it is physically created.

In addition, VR allows the creation of virtual fitting rooms where consumers can “try on” different clothing styles. Using VR glasses or special apps on smartphones, people can virtually put on and try on different styles and sizes of clothing without leaving their home or store. This improves the user experience and helps you make more informed purchasing decisions.

VR integration also promotes collaboration and exchange of ideas between designers and clients. Virtual environments allow you to create virtual presentations where you can collaborate on designs and share opinions and comments in real time. This simplifies the communication process and increases work efficiency.

However, it is important to note that virtual reality cannot completely replace the physical experience. The feel of texture, quality of materials and fit are often better perceived in the real world. Therefore, VR in fashion design is an additional tool that helps in creating and visualizing models, but does not eliminate the need for physical prototyping and testing.



Picture 1 – Designer in virtual reality

Overall, the integration of virtual reality into fashion design represents an important trend that is changing the processes of creativity, visualization and purchasing. VR allows for the creation of 3D models, virtual fitting rooms and

improves communication between designers and clients. This contributes to the development of the industry and improves the quality of user experience.

AI in fashion design

The use of artificial intelligence (AI) in fashion design represents a completely new approach that replaces traditional approaches to the creative process. AI can be integrated into various stages of model creation, from trend research and data analysis to generating unique designs. One example of the use of AI is the generation of unique designs. Using generative model algorithms, AI can create new and original patterns, textures and compositions. This gives designers the opportunity to experiment with unusual ideas and produce unique results that can be used in collections. Picture 2 shows examples of the generated designs.



Picture 2 – Examples of generated designs

Another example of the use of AI in fashion design is its use in analyzing large amounts of data and predicting fashion trends. Deep learning algorithms can analyze data from fashion shows, social media and shopping behavior to identify in-demand colors and styles. This helps designers create collections that best suit the preferences and expectations of consumers.

The use of AI in fashion design also helps automate processes. For example, AI can help optimize the cutting of materials, taking into account the shape of parts and minimizing waste. This reduces material costs and increases production efficiency.

Conclusion

This article explored the potential of using AI and VR in innovative fashion design, as well as their combination and ability to significantly enhance the creativity of designers and speed up the process of developing new and original designs.

Integrating VR into the fashion design process allows models to be tested in a virtual environment, significantly reducing the time and cost of creating physical prototypes. Designers can more freely experiment with shape, materials, colors and textures, and see the results in real time. This allows for

more efficient prototyping and model tuning, speeding up the development process.

Innovations have been explored in the field of smart clothing that responds to the physiological parameters of the wearer and creates a comfortable and personalized experience. Smart clothing equipped with sensors and electronics not only provides health and activity monitoring, but also integrates with other devices and technologies in everyday life. This symbiosis of technology and fashion is changing our understanding of how clothing can be functional, stylish and intelligent at the same time.

In conclusion, the use of AI and VR in innovative fashion design represents a promising area of research. This helps designers create unique and attractive designs and increases the efficiency of the process. In the future, as technology improves and AI and VR become more accessible, innovation and collaboration between designers, technologists and consumers in the fashion industry is expected to increase.

The future of the fashion and design industry promises to be exciting and innovative with the use of AI, VR and smart clothing.

References

1. Hong, Yu, and Yuemeng Ge. "Design and analysis of clothing catwalks taking into account unity's immersive virtual reality in an artificial intelligence environment". *Computational Intelligence and Neuroscience* 2022(3): p. 1–12.
2. Silvestri, Barbara. "The future of fashion: How the quest for digitization and the use of artificial intelligence and extended reality will reshape the fashion industry after COVID-19". *ZoneModa Journal* 10.2 (2020): p. 61–73.
3. Liu, Huimin, and Xiaoqiong Cheng. "Application of virtual reality technology based on artificial intelligence in fashion design style". *International Journal of System Assurance Engineering and Management* (2023): p. 1–10.

UDC 745:004.8:004.946

**SMART CLOTHING FOR SAFETY AND HEALTH:
INNOVATIONS FOR EMERGENCY SERVICES
AND INDIVIDUALS IN CRITICAL SITUATIONS****УМНАЯ ОДЕЖДА ДЛЯ БЕЗОПАСНОСТИ И
ЗДОРОВЬЯ: ИННОВАЦИИ ДЛЯ СЛУЖБ
ЭКСТРЕННОЙ ПОМОЩИ И ЛЮДЕЙ В
КРИТИЧЕСКИХ СИТУАЦИЯХ****Khlystou G.G.* , Tkachou A.A.** , Lednitskiy A.V.******Belarusian State Technological University, Belarus**e-mail: gleb.offical@gmail.com* , tk2007m@mail.ru** , ledniz@inbox.ru******Хлыстов Г.Г.* , Ткачёв А.А.** , Ледницкий А.В.******Белорусский государственный технологический университет,**Республика Беларусь**Keywords: clothing, artificial intelligence, technology, safety, health.**Ключевые слова: одежда, искусственный интеллект, технологии, безопасность, здоровье.*

Abstract. This article explores the possibility of using smart clothing integrated with artificial intelligence (AI) to improve the safety and health of emergency workers and people in critical situations. Modern technologies and AI make it possible to create clothes equipped with sensors that monitor various vital and physical indicators. The machine learning and deep learning algorithms used in AI analyze data collected by sensors and provide valuable information to first responders and those in critical situations. The study also examines examples of successful use of smart clothing in emergency scenarios and highlights the importance of further development of this technology to ensure safety and health in critical situations.

Аннотация. В данной статье исследуется возможность использования умной одежды, интегрированной с искусственным интеллектом (ИИ), для повышения безопасности и здоровья сотрудников экстренных служб и людей, находящихся в критических ситуациях. Современные технологии и ИИ позволяют создавать одежду, оснащенную датчиками, которые мониторят различные жизненные и физические показатели. Алгоритмы машинного обучения и глубокого обучения, используемые в ИИ, анализируют данные, собранные датчиками, и предоставляют ценную информацию для экстренных служб и лиц в критических ситуациях. Исследование также рассматривает примеры успешной эксплуатации умной одежды в экстренных сценариях и подчеркивает важность дальнейшего развития этой технологии для обеспечения безопасности и здоровья в критических ситуациях.

Smart clothes and AI

In our fast-changing world, modern technology and artificial intelligence (AI) not only improve our daily lives, but also have enormous potential to solve critical problems. One of the cutting-edge innovations that comes to the rescue in emergency situations and takes care of health is smart clothing integrated with AI and equipped with advanced sensors.

Using various sensors

The main characteristic of smart clothing that makes it a true innovation is the presence of built-in sensors. These sensors are designed for a variety of functions and tasks, including environmental monitoring, monitoring vital signs and even continuous monitoring of blood glucose levels. Let's look at how different types of sensors provide safety and health care in different scenarios.

Environmental sensors: Smart clothing can be equipped with sensors to monitor the environment, such as toxic gas levels, temperature and humidity. This allows you to warn of possible hazards, such as fires or chemical leaks, and take appropriate safety measures.

Vital Signs Sensors: Sensors built into smart clothing can continuously monitor vital signs such as heart rate, blood pressure, and blood oxygen levels. This information can be sent to a medical monitoring station, allowing you to quickly respond to changes in health status.

Glucose Monitoring: For diabetics, smart clothing can be equipped with sensors to continuously monitor blood glucose levels. If your glucose level changes, the system alerts you to the need to take action, ensuring stable blood sugar levels.

The role of artificial intelligence

The machine learning and deep learning algorithms used in AI analyze data collected by sensors and provide valuable information to first responders and those in critical situations. This allows you to automatically identify dangerous situations, predict developments and provide recommendations to ensure safety.

Smart clothing, integrated with artificial intelligence and equipped with advanced sensors, is an innovative technology that opens up new opportunities to improve safety and health in various areas of life. In the following examples, we will look at how this unique combination of technologies can be successfully applied in emergency situations, emergency medical services and the daily life of diabetics, helping to improve quality of life and ensure safety in critical situations.

Examples of successful use of smart clothing

In the field of the Ministry of Emergency Situations: Smart clothing integrated with artificial intelligence can be used to improve the safety of rescuers and firefighters. For example, in the event of a fire, sensors in clothing can monitor the level of toxic gases in the environment and warn of possible danger. This allows rescuers to make more informed decisions and reduces risks to their health.



Picture 1 – Example of usage of smart-clothing

In the emergency medical field: Smart-clothing can be used to improve patient care in emergency medical services. For example, sensors in clothing can monitor a patient's vital signs, such as pulse and blood pressure, and automatically transmit this data to medical personnel. This helps to quickly and accurately diagnose the patient's condition and begin treatment.

In the daily life of diabetics: Smart clothing can be used by diabetics to more conveniently and effectively control their condition. For example, it can automatically adjust insulin levels based on measured glucose levels, ensuring stable blood sugar levels and preventing acute conditions. This can significantly improve the quality of life of diabetics.

Technologies used to implement sensors

To transmit data from built-in sensors, smart clothing uses wireless technologies such as Bluetooth, Wi-Fi, NFC or special low-power radio frequency modules. These technologies provide reliable communication with external devices such as smartphones, walkie-talkies, tablets or medical devices for monitoring and data analysis.

Smart clothing is often equipped with protective layers that provide resistance to moisture and external influences. This allows the garment to be used in a variety of conditions, including rain or snow. In addition, sensor power and charging systems are integrated into clothing and their batteries can be recharged in safe environments using standard power sources such as city power lines, or using wireless chargers in emergency situations, allowing for fast and efficient charging.

Conclusion

The research raises the important issue of using smart clothing integrated with AI to improve the safety and health of emergency workers and people in critical situations. Using modern technologies and machine learning algorithms, such clothing can be equipped with sensors capable of monitoring various aspects of life and physical condition. The study's findings highlight the potential of smart clothing to collect and analyze data, which could provide valuable information to first responders and those in sensitive situations. Examples of the successful use of such clothing in emergency scenarios are given, which emphasizes the

relevance and promise of this technology in ensuring safety and health in critical situations. Further development in this area is necessary to more effectively respond to emergency situations and improve overall safety.

References

1. Fei Wang, Bo Zhu, Lin Shu, Ying Li, Xinghua Lai, Lingchen Ma, Peijun Ji, Qing Zhou, Tongxi Yu, Xiaoming Tao "Smart Clothing with Built-In Soft Sensing Network for Measuring Temporal and Spatial Distribution of Pressure under Impact Scenarios". *Advanced Sensor Research* (2022). <https://doi.org/10.1002/adsr.202200019>.
2. Xinhao Xiang, Xingchen Ma, Lian Zhou, Gerhard M. Sessler, Heinz von Seggern, Omar Ben Dali, Mario Kupnik, Pengfei He, Ying Dai, Xiaoqing Zhang. "Threadlike Piezoelectric Sensors Based on Ferroelectrets and Their Application in Washable and Breathable Smart Clothing". *Advanced Material Technologies* (2023). <https://doi.org/10.1002/admt.202202130>.

UDC 747.012.1

MODERNIZATION OF RAILWAY STATION INTERIORS

МОДЕРНИЗАЦИЯ ИНТЕРЬЕРОВ ЖЕЛЕЗНОДОРОЖНОГО ВОКЗАЛА

*Molochko M., Samutsina N.**

Vitebsk State Technological University, Belarus

*e-mail: samusiya@mail.ru**

*Молочко М.А., Самутина Н.Н.**

Витебский государственный технологический университет,

Республика Беларусь

Keywords: interior, public space, design project, modernization.

Ключевые слова: интерьер, общественное пространство, дизайн-проект, модернизация.

Abstract. The main objective of the project is the preservation, reconstruction and modernization of the premises of the Gomel-Passenger station, which do not correspond to the new socio-cultural realities and have practically lost the targeting of their use. The work set the task of creating a design layout for modernizing the premises of the waiting room, VIP-lounge, as well as developing a station for charging a phone.

Аннотация. Основной задачей проекта является сохранение, реконструкция и модернизация помещений вокзала станции «Гомель-Пассажирский», которые не соответствуют новым социокультурным реалиям и практически потеряли адресность своего применения. В работе поставлена задача создания дизайн-макета модернизации

помещений зала ожидания, вир-зала для отдыха, а также разработка станции для зарядки телефона.

The premises of the Gomel-Passenger station are of historical value and an operating railway station. The basis of the project should be respect for history, as well as the need to revitalize the function of the premises, taking into account the dynamics of the development of the transport network and new demands of society. Based on this, the purpose of this work is to use architectural, design, artistic means of expression to form an emotionally favorable climate of the environment of the railway station. The following tasks are set in the work: to study the specifics of railway stations in Europe and Belarus, to analyze analogues; to develop a design solution for the public space of the railway station at a high level; to choose a color palette and interior style; to make a functional zoning of the space.

The object of the study is the central and left part of the main building of the Gomel-Passenger railway station, which includes a hall with a main staircase to the second floor, to the right of the stairs – a room with an exit to the pyrone and stairs to the tunnel, ticket offices, on the second floor to the right and left of the stairs – a waiting area and ticket offices. It was decided to allocate part of the spaces for an exhibition area, which will remind of the historical contribution to the culture and economy of the country of railway transport.

A special feature of the designed room was the synthesis of the old and new eras, the preservation of heritage and architecture, taking into account new trends in the field of design.

In the analysis of literary sources, the existing domestic and foreign experience of station design is analyzed, analogs of station complex buildings are studied. The color palette and style of the interior are determined, taking into account all the features of the projected object. Cold and warm shades of beige were chosen as the main colors, white and blue became additional colors. Being contrasting, this color combination causes an increase in tone and performance.

Several scenarios for the placement of lighting devices have been developed. Linear LED lamps on a metal built-in frame are used for artificial lighting of all rooms. In addition – chandeliers and spotlights for certain areas. LED scattering systems are used on the ceiling and walls, as well as for the exhibits of the exhibition area.

To create the interior and embody it in a photorealistic image, the following professional programs were used: «Autodesk 3ds Max», «Chaos Corona», «Adobe Photoshop», «CorelDRAW», «Adobe After Effects». The details, textures, imitating the material are carefully worked out in the model.

The synergy of neoclassical and modern is chosen as the basis of the style solution. Neoclassicism is a modern look at the classical style, a collective image of replicas of a variety of classical trends. Classic interiors never go out of fashion, but even they gradually acquire new details and interpretations.

The formation of a space-planning solution focuses on creating comfortable conditions for people with disabilities. For this purpose, special markings for the visually impaired, ascent and descent systems, separate low-standing ticket offices, elevators, etc. are provided. (fig. 1).



Figure 1 – Room model. Foyer (a) and a room for ticket offices (b). Waiting room (c), exhibition space in the waiting room (d), waiting room and a dock for charging phones (e). Superior comfort room (f-g)

The premises of ticket offices and a tunnel hall that leads to the exits to the platforms have been developed. The percentage of natural light passing through is quite small from a small number of windows and the roof of the platform, which is located on the street and prevents sunlight from entering (fig. 1, a-b).

The premises of the second floor have been developed: a waiting room, an exhibition space, a high-comfort hall (fig. 1, f-g). In the exhibition space, the

lighting should be soft and comfortable, contribute to the consideration of the presented exhibits.

Having abandoned stained glass windows in favor of more light-transmitting windows, special tinted glasses were chosen. They give access to more natural light and at the same time protect from the bright effects of sunlight. Such glasses are used in the foyer of the building.

The author's design of benches with eco-leather upholstery has been developed for waiting areas. It is easy to care for, does not pass dirt and dust, is not subject to stretching and moisture, which will preserve the presentation for a longer period. There is a two- and three-person bench for convenient seating of people with luggage or a wider one for several people. Also, in this zone, the author's projected object for charging gadgets is successfully located. You can leave your device in the safe, close it, get a card and not worry about the safety of the gadget. The station is also suitable for larger equipment, such as laptops and portable speakers. The station can charge multiple devices at the same time without loss of charge speed.

In the course of the work, the functions and roles of the premises were correctly distributed, the main task of the empty rooms on the second floor was solved. Conditions have been created to attract passengers to previously empty zones. The author's objects were designed, which made it functional and comfortable to stay. The practical implementation of the presented project will increase the level of comfort.

References

1. Молочко, М. А. Дизайн-проект модернизации интерьеров железнодорожного вокзала «Гомель-Пассажирский» / М. А. Молочко, Н. Н. Самутина // Тезисы докладов 56-й Международной научно-технической конференции преподавателей и студентов / УО «ВГТУ». – Витебск, 2023. – С. 208–209.
2. Войтович, В. С. Дизайн-проект социального пространства / В. С. Войтович, Н. Н. Самутина // Материалы Международной научно-технической конференции «Инновационные технологии в текстильной и легкой промышленности», Витебск, ВГТУ, 13–14 ноября / УО «ВГТУ». – Витебск, 2019. – С. 101–104.
3. Захаревич, В. Д. Дизайн-проект интерьеров детской художественной школы / В. Д. Захаревич, Н. Н. Самутина // Материалы Международной научно-технической конференции «Инновационные технологии в текстильной и легкой промышленности», Витебск, ВГТУ, 13–14 ноября / УО «ВГТУ». – Витебск, 2019. – С. 107–108.
4. Vaitovich, V. Design-project of school museum / V. Vaitovich, N. Samutsina // Education and science in the XXI century Articles of the IV International Scientific and Practical Conference. EE «Vitebsk state technological university» which will take place in November, 2019. – 2019. – P. 49–51.

5. Zaharevich, V. Interior project of children 's art school / V. Zaharevich, N. Samutsina // Education and science in the XXI century Articles of the IV International Scientific and Practical Conference. EE «Vitebsk state technological university» which will take place in November, 2019. – 2019. – P. 56–58.

UDC 658.78

**DEVELOPMENT OF AUTOMATIC
LABELING SYSTEM
РАЗРАБОТКА АВТОМАТИЗИРОВАННОЙ
СИСТЕМЫ МАРКИРОВКИ**

*Navumenka A. *, Zemirov K.*

Vitebsk State Technological University, Belarus

*e-mail: andrew.navumenka@gmail.com**

*Науменко А.М. *, Земиров К.Б.*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: technical vision, QR code, control (identification) signs, label applicator, production line.

Ключевые слова: техническое зрение, QR-код, контрольный (идентификационный) знак, аппликатор этикеток, поточная линия.

Abstract. The automated labeling line consists of the camera reader, the label applicator, the frequency converter, and the operator touch panel. A system management program has been developed using the operator panel. The area of possible practical application of the system is shoe manufacturing.

Аннотация. Автоматизированная линия маркировки продукции состоит из камеры-считывателя, принтера – аппликатора этикеток, преобразователя частоты, сенсорной панели оператора. Разработана программа управления системой с помощью панели оператора. Областью возможного практического применения системы является обувное производство.

The labeling of goods in the Republic of Belarus is designed to protect products that are included in the legislative list from forgery and counterfeit. This will reduce the number of illegal and non-certified goods that citizens of the country purchase under the guise of originals. Product labeling in the Republic of Belarus transfers control over this area into the hands of the state, which guarantees the quality of each product or product on the market, provided that it has a code [1].

The development and improvement of product labeling systems makes it possible to increase the level of information support, the quality of products and reduce the volume of sales of non-certified goods.

There are several types of marking suitable for different tasks.

Drip-jet marking is a non-contact method of applying an image to any surface, in which all elements of this image are formed by drops of liquid paint or ink [2].

Laser marking uses a laser beam to create permanent markings on various surfaces. This process is very precise and can be used to create a wide range of markings, including logos, serial numbers, barcodes and other forms of text or images [3].

Impact-point marking is used for mechanical marking of materials with hardness up to 63 HRC [4].

Electrochemical (electrolytic) marking is a way of applying information to metal surfaces without damaging them [5].

Labeling is the gluing of labels on the surface of consumer packaging or group packaging, pallets-pallets with finished products [6].

The marking line is designed to automate the labeling process. Thanks to the sensors, labeling is fast and accurate. If a damaged label is applied, the product is automatically removed from the conveyor line.

DataMan 260 readers are selected for video surveillance and fixing images of units of goods. For printing and applying self-adhesive labels on the side and top of flat products, an automatic label applicator printer H-IP-02 has been selected. To monitor the presence and detection of various objects without direct contact with the objects themselves, the KIPPRIBOR OK50 series optical contactless sensor is selected. A three-phase asynchronous general purpose electric motor АИР90LB8 was selected as the conveyor drive. To control the speed of the conveyor, a vector frequency converter ПЧВ3-1.5К-В is selected. A monoblock controller with discrete inputs/outputs of the OBEH ПЛК110 series was selected as the control device. For a visual display of parameter values and operational management, maintaining an archive of events or values, select the OBEH СП307-Б operator touch panel. To move the goods from the conveyor belt, we will choose a pneumatic cylinder of the Pneumax series 1303, a pneumatic distributor with electropneumatic control of the Pneumax series 488.

An assembly drawing of the system has been developed, shown in Figure 1.

After selecting the type of marking by the operator on screen 5, the goods will begin to move along the conveyor belt 1, which is driven by a three-phase asynchronous electric motor 2 using a belt drive. After the optical contactless sensor notices the goods moving along the conveyor belt 1, it will give a signal to the label applicator printer 3, which will apply the marking. Next, the product passes under the infrared camera with a reader 4, which checks the label for damage, and if there is any damage, the pneumatic cylinder 6, located further on

the conveyor line, will push the defective product. The product that has passed the inspection will go to the next stage of processing.

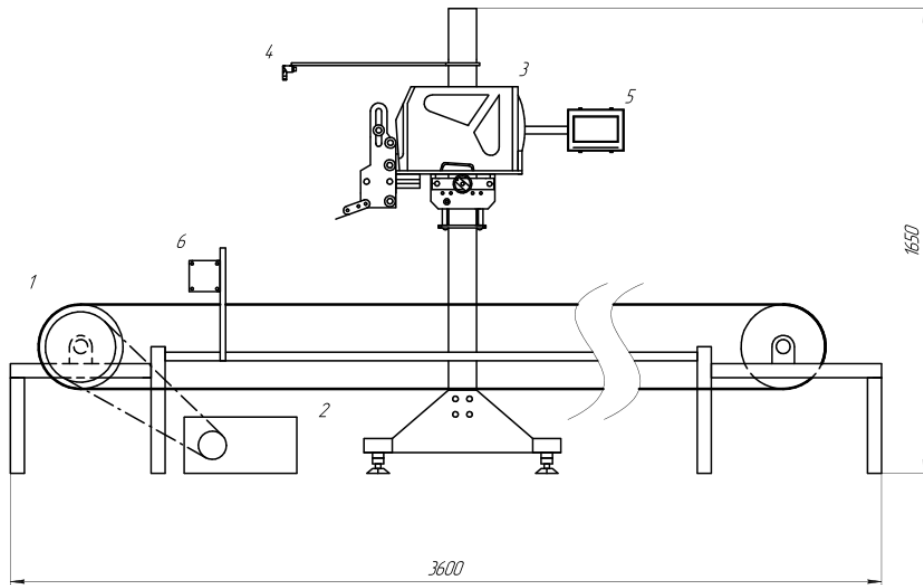


Figure 1 – System assembly drawing

The CODESYS software package was selected for the development of the control program. The main purpose of the CODESYS complex is an application development environment for programmable logic controllers.

The developed software allows you to start/stop the marking process, set batch parameters, control the quality of the application of codes and the current state of the system. The information about the numbers of the current unsaved codes, the number of applied, checked, rejected markings is displayed on the screen.

The system start is implemented using the input variables `pack` and `all_z`, trigger `rs1`. The system stop is performed using the input variable `close`, trigger `rs2`. The input variable `pause` is used to stop the system. When the system starts, the `pusk` variable takes the value “true” and the `rs1` trigger goes into the active state. When the system is stopped, the `close` variable takes the value true, the `rs2` trigger goes into the active state, the `rs1` trigger is reset. When paused, the `close` variable takes the value “true”, the `rs1` trigger is reset, the `rs2` trigger is inactive.

Visualization of the applied codes is implemented using the variables `all_tek`, `show_text`. When checking codes with a technical vision camera, the number of unread codes is recorded in the variable `fales_scanning`, the number of repetitions in repeaters that do not correspond to the codes `d no_repeat`.

Thus, all the components necessary for the implementation of the labeling line have been designed. The area of possible practical application of the system is shoe manufacturing.

References

1. Пьянкова, Д. Е. Особенности идентификации кожаной обуви / Д. Е. Пьянкова // Товароведно-технологические аспекты повышения качества и конкурентоспособности продукции : сборник материалов Всероссийской (национальной) научно-практической конференции – Новосибирск: Сибирский университет потребительской кооперации, 2019 – С. 86–93.
2. Орлов, А. А. Системный анализ методов маркировки промышленных изделий / А. А. Орлов, А. В. Проворотов, А. В. Астафьев // Алгоритмы, методы и системы обработки данных. – 2010. – № 15. – С. 136–140.
3. Лазерная маркировка материалов / А. Валиулин [и др.] // Фотоника. – 2007. – № 3. – С. 16–23.
4. Исследование горячей, ударно-точечной и плазменной маркировки локомотивных бандажей / А. В. Кушнарев [и др.] // Вестник Всероссийского научно-исследовательского института железнодорожного транспорта. – 2007. – № 3. – С. 11–17.
5. Козлов, В. Г. К вопросу об электрохимической обработке металлов / В. Г. Козлов, М. А. Кречотень, А. Ю. Лободин // Современные научно-практические решения в АПК : материалы международной научно-практической конференции – Воронеж: Воронежский государственный аграрный университет им. Императора Петра I, 2017. – С. 88–91.
6. Шальк, Г. Оптимальное управление производственным оборудованием и линиями упаковки / Г. Шальк, И. Демин // Мясная индустрия. – 2012. – № 4. – С. 26–27.

UDC 659

**PSYCHOLOGY OF PERCEPTION OF LOOKBOOK
DESIGN AS ADVERTISING PRODUCTS FOR
LIGHT INDUSTRY**

**ПСИХОЛОГИЯ ВОСПРИЯТИЯ ДИЗАЙНА
ЛУКБУКА КАК РЕКЛАМНОЙ ПРОДУКЦИИ
ДЛЯ ЛЁГКОЙ ПРОМЫШЛЕННОСТИ**

Polyakova E. , Popova A.***

Vitebsk State Technological University, Belarus

e-mail: yelena.polyakova.01@inbox.ru , sashka_20@mail.ru***

Полякова Е.О. , Попова А.В.***

Витебский государственный технологический университет,

Республика Беларусь

Keywords: psychology, lookbook, advertising, design, photo, light industry.

Ключевые слова: психология, лукбук, реклама, дизайн, фото, легкая промышленность.

Abstract. Is devoted to the requirements, principles and psychological aspects when developing the design of a lookbook as a promotional product for the light industry. The work analyzes the influence of aesthetics and visual stimuli, creating the desired image, and activating emotions in lookbook design. The study provides insight into how psychological factors influence consumer analysis and how a lookbook can effectively communicate with the consumer. The results of the work will be useful for marketers, designers and specialists involved in the creation of advertising materials in the light industry.

Аннотация. Рассматриваются требования, принципы и психологические аспекты при создании дизайна лукбука в качестве рекламной продукции для легкой промышленности. В работе анализируются влияние эстетики и визуальных стимулов, создание желаемого образа, активация эмоций в дизайне лукбука. Исследование позволяет понять, как психологические факторы влияют на анализ потребителей и как лукбук может эффективно общаться с покупателем. Результаты работы будут полезны для маркетологов, дизайнеров и специалистов, занимающихся созданием рекламных материалов в сфере легкой промышленности.

The relevance of the research lies in modern methods of advertising light industry with all aspects and requirements that insufficiently affect the consumer and the promotion of a particular product.

The purpose of the work: to study the design features of the lookbook, its characteristics, perception features, as part of the strategy for the development of the image of light industry.

The promotion of light industry goods has its own characteristics and specifics that should be taken into account when creating a design. Light industry includes the production of goods that usually have a functional purpose and serve certain purposes. Advertising should emphasize the functional advantages of the product, its reliability, efficiency and compliance with the needs of the target audience [1].

A lookbook, as a means of advertising, is a specially created collection of photos or videos, focusing on the details of the product to show its quality, finish, unique elements or innovative features. This helps to convince consumers of the value of the product and its superiority over similar products. The lookbook is used to attract the attention of consumers, create the desired image or associations with the brand, as well as to stimulate sales.

In the psychology of perception, a lookbook can be considered as a form of light industry advertising, which is aimed at creating a certain impression and emotional reaction among consumers. The perception of a lookbook can be

studied from various angles, including visual perception, psychological mechanisms and effects that can affect people's perception and reaction [1].

Aspects of the psychology of perception that can be applied to light industry advertising through lookbook:

- visual perception, the use of composition, colors, shapes and lines to attract attention and create the desired effect. Human eyes tend to remember and attract to certain visual elements, and the use of these elements can affect the perception of advertising [2];

- emotional impact, a lookbook can cause emotional reactions in viewers, such as desire, admiration, satisfaction or a desire to be associated with the image depicted. From the choice of models and their appearance, to the general mood and atmosphere of photos, emotional impact can be a key factor in the perception of a lookbook as an advertisement;

- associations and symbols, certain places or attributes can be used to evoke associations in the audience. For example, the use of certain colors, backgrounds or decorative elements can associate products with a certain way or lifestyle [3];

- perceptual distortions, psychological distortions, such as the effect of choice, the effect of general impression or the effect of exaggeration, can affect the perception of buyers. For example, presenting products in the context of stylish and fashionable images can give the impression that the products are more attractive than they actually are;

- attention and memorization, the lookbook should hold the attention of the audience and be memorable. The use of unusual or unexpected elements, interesting compositions or a unique style can help attract and retain the attention of viewers.

Psychological aspects of perception, which can be applied to light industry advertising through lookbook, help in creating an effective and attractive advertising campaign [1].

Photos in the light industry catalog are also an important part of advertising [4]. The main aspects that should be taken into account when creating photos for a light industry lookbook:

- clarity and detail, photos should be clear and show products in high resolution with good detail. This will help consumers to more fully consider the product and evaluate its quality;

- lighting and color transfer, it is important to create good lighting so that the product is visible in the best light. The colors must be accurately rendered to match the actual appearance of the products. Lighting and colors can affect the perception and attractiveness of the product;

- context and use, photos should show products in a natural or appropriate context of use. This will help consumers imagine how the product can be useful and meet their needs. Scenes in which the product is used can also add emotional appeal;

– variety and variability, it is important to present products in different angles, angles and details. The photos should demonstrate the various functions or features of the product and suggest options or combinations of use. This will help consumers get a complete picture of the product and make an informed decision;

– professionalism and aesthetics, as in the case of the lookbook, the photos in must be made professionally and meet aesthetic standards. This will create an impression of reliability and product quality and strengthen consumer confidence in the brand;

– composition and focus, photography should be attractive and effective to attract attention and keep it. Focusing on the key details or features of the product will help to highlight it and attract interest;

– uniqueness and differentiation, photos help to distinguish products from competitors and convey unique advantages, reflect the individuality and style of the brand in order to attract the target audience.

The specific aspects of photos in the light industry lookbook may vary depending on the specific market segment and target audience. An analysis of the goals and preferences of the target audience will help determine the most effective strategies and approaches to creating photos for light industry.

References

1. Камышанец, А. К., Захарова, И. Г., Особенности психологии восприятия рекламы / А. К. Камышанец, И. Г. Захарова // Молодежная наука: вызовы и перспективы: сб. материалов V Всероссийской научно-практической конференции студентов и молодых ученых / Самарский государственный технический университет. – Самара, 2022. – С. 149–151.
2. Кириллова, И. Л. Динамика кривых линий в композиции // Материалы докладов 53-й Международной научно-технической конференции преподавателей и студентов: в 2 т. / УО «ВГТУ». – Витебск, 2021. – Т. 2. – С. 195–196.
3. Копцова, В. А. Фирменный стиль как важнейший аспект современной бизнес-стратегии / В. А. Копцова, И. Л. Кириллова // Молодые ученые – развитию Национальной технологической инициативы (ПОИСК-2023): сб. материалов Национальной (с международным участием) молодёжной научно-технической конференции / ИГПУ. – Иваново, 2023. – № 1. – С. 677–679.
4. Самутина, Н. Н. Анализ методов создания fashion-иллюстрации / Н. Н. Самутина, А. С. Путро // Инновации и технологии к развитию теории современной «Мода (Материалы. Одежда. Дизайн. Аксессуары)». Сборник материалов I Международной научно-практической конференции, посвященной Фёдору Максимовичу Пармону / Москва, 2021. – С. 46–50.

UDC 666.3

**IN VITRO BIOACTIVITY OF CALCIUM
PHOSPHATE CERAMICS**
**БИОЛОГИЧЕСКАЯ АКТИВНОСТЬ КАЛЬЦИЙ-
ФОСФАТНОЙ КЕРАМИКИ IN VITRO**

Shymanskaya H.N. , Podsoonnaya A.D.*

Belarussian State Technological University, Belarus

*e-mail: anna.shimanskaya.86@mail.ru**

Шиманская А.Н. , Подсоонная А.Д.*

Белорусский государственный технологический университет,

Республика Беларусь

Keywords: calcium phosphate ceramics, bioactivity, hydroxyapatite, sol-gel process, SBF solution, PBS solution.

Ключевые слова: кальций-фосфатная керамика, биоактивность, гидроксиапатит, золь-гель синтез, SBF-раствор, PBS-раствор.

Abstract. In this work, the effects of sol-gel derived 52S4.6 bioactive glass on bioactivity of calcium phosphate ceramics was studied. It was found that additive enhance apatite forming ability of ceramics in SBF, active release of calcium cations in PBS, indicating bioresorptivity, does not cause deviation of the pH of PBS. Therefore further research is needed for synthesized ceramics to its in vivo application.

Аннотация. В настоящей работе изучено влияние биоактивного стекла 52S4.6, полученного с помощью золь-гель технологии, на биоактивность кальций-фосфатной керамики. Установлено, что добавка усиливает апатитообразующую способность керамики в SBF-растворе, активно высвобождает катионы кальция в PBS-раствор, что свидетельствует о биорезорбтивности, не вызывает изменения pH PBS-раствора. Следовательно, необходимы дальнейшие исследования синтезированной керамики для ее применения in vivo.

Calcium phosphate ceramics has been widely used for bone substitution because of non-toxicity, excellent bioactivity, resorbability, biocompatibility [1, 2].

The aim of our work is development of compositions and technological parameters for the production of calcium phosphate porous ceramics with improved mechanical properties using of 3D printing.

To prepare of slurry for 3D printing hydroxyapatite was synthesized by aqueous precipitation. And moreover, sol-gel derived 52S4.6 bioactive glass was used as an additive. Before reaching the gel point, the sol was mixed with hydroxyapatite. The amount of additives was 10.0–30.0 wt.%. The printed samples were dried at 50–70 °C for 24 h and fired at 900–1200 °C for 8 h.

Previous research has shown that sample containing 10 wt.% of the sol-additive had optimal physicochemical properties: water absorption – 6.1–33.1%; apparent porosity – 49.1–14.3 %; bulk density – 1480–2340 kg/m³; compressive strength – 10.2–44.9 MPa. Phase composition of synthesized ceramics – hydroxyapatite and β -tricalcium phosphate.

As it is known, materials for bone substitution should produce apatite on its surface in the living body and bonds to living bone through this apatite layer [3]. The apatite forming ability of composition optimized ceramics was investigated by examining apatite formation on the surface of the samples treated in simulated body fluid (SBF). The samples were weighed, placed in plastic containers containing 100 cm³ of SBF and kept for 1–21 days at 37 °C in the TS-1/20 thermostat.

Figure 1 shows the weight gain of the samples after immersion in SBF solution. The heat treatment temperature and the composition of the samples affect the rate of apatite formation. The apatite layer formed on the surface of ceramics sintered without additive only at a temperature of 900 °C, which may be due to phase structure of obtained material. As the firing temperature increases, the amount of β -Ca₃(PO₄)₂ increases. The experimental results demonstrated that, during soaking in SBF, the specimens obtained using sol-additive at 900 °C dissolved. However, samples containing sol-additive and firing at 1200 °C enhanced the rate of mineralization. This is due to the fact that the apatite forming ability depends on hydroxyapatite / β -tricalcium phosphate ratio. The weight gain of samples after immersion in SBF solution for 21 days was 3.5 %.

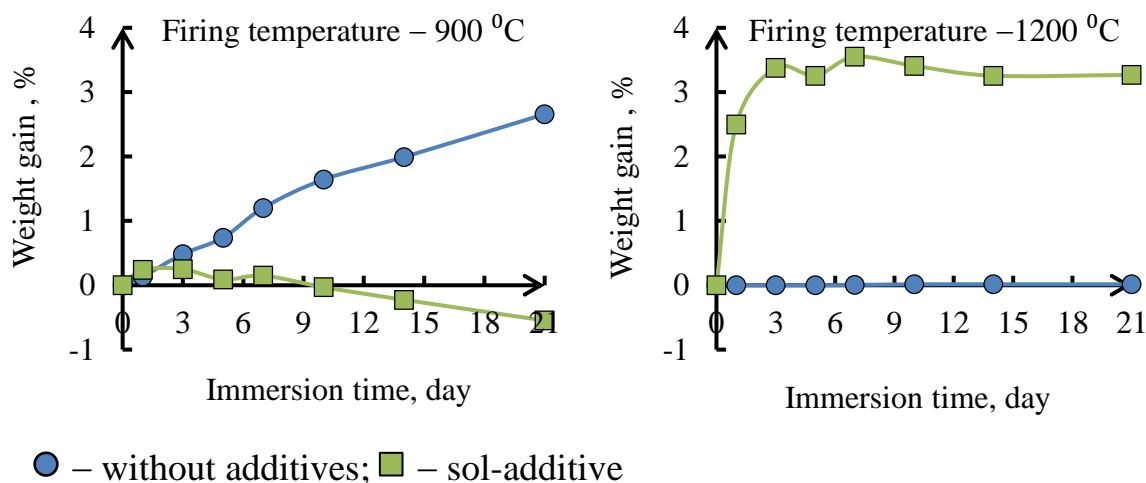


Figure 1 – Weight gain of samples after immersion in SBF solution

To study behavior in a phosphate-buffered saline (PBS) (pH = 7.4), weighed samples were placed in specified solution for 1–21 days at 36.6 °C. Complexometric titration and X-ray fluorescence spectrometry (Axios,

PANalytical, Netherlands) were used to find the total calcium ion content of PBS solution (figure 2).

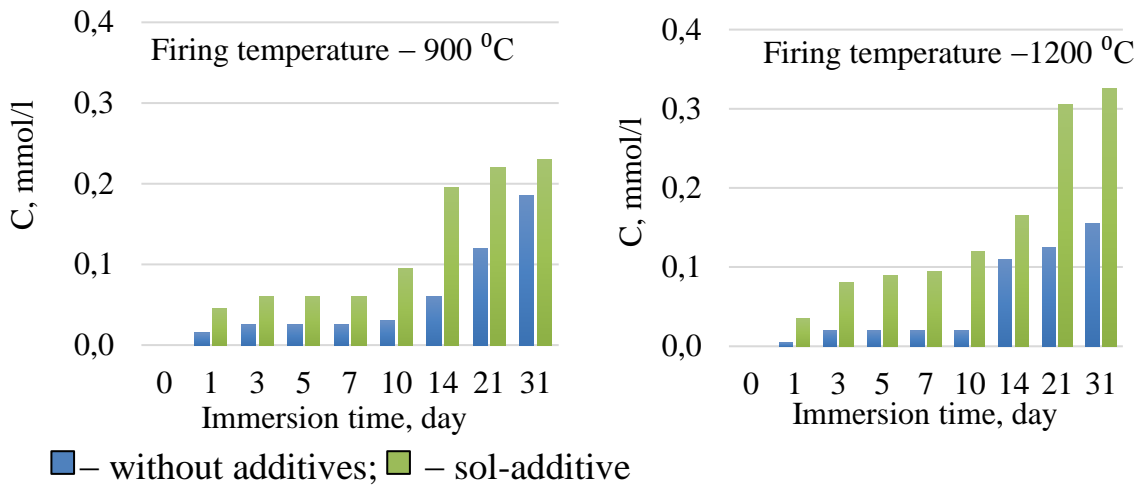


Figure 2 – Concentration of calcium ions in solution after immersion of samples

Ceramic samples with sol-additive showed a pronounced loss of weight and active release of calcium cations, which confirms their ability to bioresorb. The rate of ceramics resorption varied from $0,9 \cdot 10^{-4}$ to $3,7 \cdot 10^{-4}$ g/day depending on the firing temperature.

A significant deviation of the pH from a neutral value, both towards increased alkalinity and towards acidity, negatively affects the viability of tissues and limits the possibility of using the material in direct contact with them inside the body.

Figure 3 illustrates that ceramics synthesized at 900 °C displayed highly alkaline pH. In contrast, specimens firing at 1200 °C exhibited weakly alkaline medium throughout all the experimental intervals.

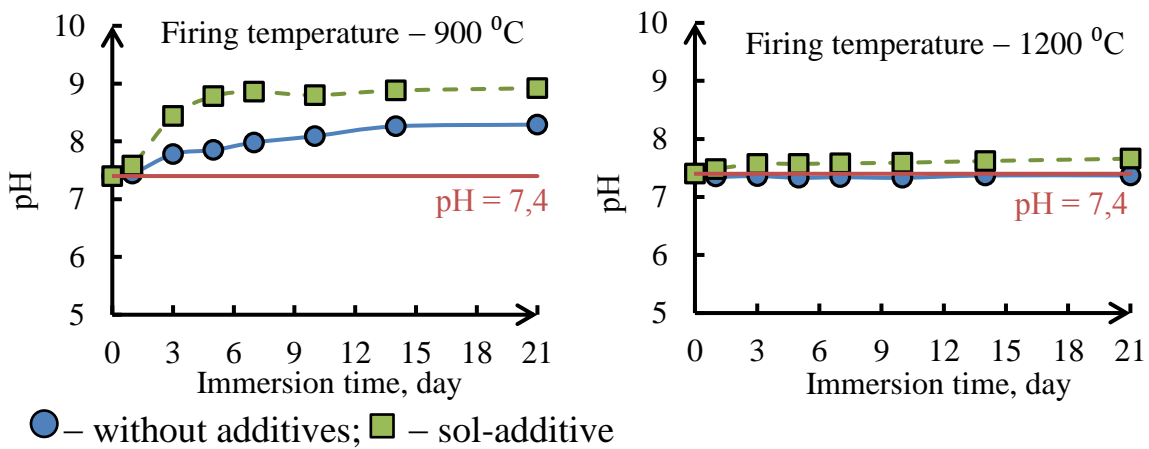


Figure 3 – Change of pH of solution after immersion of samples

Thus, the synthesized calcium phosphate ceramics can be recommended for further medical research in order to study the possibility of their use in bone surgery.

References

1. Bioactive calcium phosphate materials and applications in bone regeneration / J. Jeong [et al.] // *Biomaterials Research*. – 2019. – Vol. 23. – P. 1–11. <https://doi.org/10.1186/s40824-018-0149-3>.
2. Synthesis and properties of Sr²⁺ doping α -tricalcium phosphate at low temperature / Z. Yuan [et al.] // *Journal of Applied Biomaterials & Functional Materials*. – 2021. – Vol. 19. – P. 1–8. <https://doi.org/10.1177/228080002>.
3. Tadashi, K. How useful is SBF in predicting in vivo bone bioactivity? / K. Tadashi // *Biomaterials*. – 2006. – Vol. 27. – P. 2907–2915. <https://doi.org/10.1016/j.biomaterials.2006.01.017>.

**SECTION 2. SOCIAL AND ECONOMIC PROBLEMS OF
EDUCATION AND SCIENCE DEVELOPMENT IN THE 21st CENTURY**

UDC 331; JEL Classification: J24, M51

**BIG DATA AND ARTIFICIAL INTELLIGENCE
TECHNOLOGIES IN HR MANAGEMENT**

**БОЛЬШИЕ ДАННЫЕ И ТЕХНОЛОГИИ
ИСКУССТВЕННОГО ИНТЕЛЛЕКТА
В УПРАВЛЕНИИ ПЕРСОНАЛОМ**

*Aliakseyeva A. *, BAO Yucui*

Vitebsk State Technological University, Belarus

*e-mail: alekseeva@vstu.by**

*Алексеева Е.А. *, Бао Юйцай*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: HR management, big data, artificial intelligence.

Ключевые слова: управление персоналом, большие данные, искусственный интеллект.

Abstract. This article provides an overview of new trends in human resource management that determine radical changes in the context of labor relations, conditions and organization of work: HR becomes a partner of business; personalization of approaches to human resource management; growth of digitalization and automation of HR processes. The results of the study of various consequences of these trends and their impact on the field of human resource management are presented. It is concluded that the penetration of digital technologies into the HR management requires new thinking and changes the approach to the process of interaction with people.

Аннотация. В данной статье приведен обзор новых трендов в сфере управления человеческими ресурсами, которые определяют радикальные изменения в контексте трудовых отношений, условий и организации труда: HR становится партнером бизнеса; персонализация подходов к управлению человеческими ресурсами; рост цифровизации и автоматизации HR-процессов. Представлены результаты исследования различных последствий этих трендов и их влияния на сферу управления человеческими ресурсами. Сделан вывод о том, что проникновение цифровых технологий в сферу управления человеческими ресурсами требует нового мышления и меняет подход к процессу взаимодействия с людьми.

Modern organizations are faced with radical changes in the context of human resource management, conditions and organization of work. A number of existing global trends inevitably lead to significant changes in the field of human resource management, among which the most significant trends can be identified: HR becomes a business partner; personalization of approaches to human resource management; growth of digitalization and automation of HR processes.

The first global trend is that human resource management is becoming a full-fledged strategic function of business. In the vast majority of companies, personnel decisions are made taking into account the strategic context of the business. An important growth area for human resource management as a strategic function is the effective collection and analytical processing of personnel data from a large number of sources. Therefore, the HR trend how a business partner is leading to the trend of using " Big" Data " as a basis for decision-making in the field of human resource management. When considering HR processes, the focus shifts from solving a local problem to solving a business problem, so continuous performance management becomes important. Continuous performance management refers to the creation of a new, permanent process of goal setting, coaching, performance appraisal and feedback.

The second global trend is that each employee is not just part of a group, an abstract "target audience", but is considered as a bearer of unique properties, so HR The task arises of meeting the individual needs of the employee. Companies are beginning to closely monitor employee development within the company, and there is growing interest in well-being programs, which should help maintain work-life balance and increase productivity, engagement and job satisfaction. This trend echoes the trend of continuous performance management, but its peculiarity is the personalization of the approach to human resource management.

Relationship analytics can be identified as a trend, the source of which was the personalization of approaches to human resource management. The focus of collecting and analyzing employee-related big data is shifting from indicators such as employee turnover, length of service, and performance ratings to indicators such as team relationships, employee well-being and emotional state.

The spread of digital technologies is changing the nature of employee work, requiring them to develop new competencies to successfully complete work tasks, so another trend can be called the intellectualization of work. Given the digital transformation of the workplace, it's no surprise that more than half of all employees (54 %) will require reskilling and upskilling in just three years, according to a 2018 World Economic Forum report. In a highly competitive labor market, organizations cannot depend solely on recruitment to attract employees with the required competencies. Continuous staff training plays an important role in obtaining critically needed competencies. Frequent job changes and the accelerating rate of skill obsolescence require the development

of new approaches to creating diverse training programs for people who move between several different occupational fields during their working lives.

According to Deloitte research, rapid and ongoing changes in the nature of work are changing the relationship between learning and work itself, making them more integrated and connected than ever before. Therefore, it is necessary to develop training programs that focus on job content, helping people use information and improve their skills during everyday work tasks. With the widespread adoption of mobile devices, the cloud, and the adoption of augmented reality devices, organizations will be able to take new approaches to digital learning, where learning occurs in small doses, almost imperceptibly, throughout the workday. It is also important that training be more personalized, targeted to a specific person and available at any convenient time and mode.

The third trend is the continued growth of digitalization and automation of HR processes. Digital technologies are fundamentally changing the approach to human resource management practices.

Cognitive technologies based on artificial intelligence, such as machine learning (ML), neural networks, bots, natural language processing (NLP), have the potential to transform almost any industry. Cognitive technologies help analyze ever-growing data, processing volumes of complex data that the human mind and traditional analysis methods cannot handle. Self-learning algorithms in these technologies make it possible to detect patterns and connections that cannot be identified using conventional analytics. But, as with big data analytics, algorithms and advanced models depend on reliable and accurate input of raw data and precision in query construction.

Digital HR technologies are no longer stand-alone tools, but are becoming part of more complex ERP systems in which HR modules are integrated with financial or other modules, which also allows the collection of complete data and analysis of them together. However, many companies are still focused on automating basic HR processes. Due to the overload of employees with information from various sources, a new problem arises – the problem of employee productivity when working with diverse arrays of data from various sources. According to J. Bersin, there is a phenomenon where most companies have too much technology available. Gradually, companies are realizing that they need less HR software, not more, and that it needs to be integrated into the company's work systems.

“Digital technologies can make our busy lives easier to navigate, but they can also disrupt fundamental elements of human connection”. Despite attempts to replicate human behavior and gestures using artificial intelligence and machine learning, the fundamentals of human connection-eye contact, personal interaction, empathy-remain indispensable to technology. So, if employees lack human touch when interacting digitally, it can create an environment where people feel isolated and dissatisfied. With the introduction of digital technologies into HR processes, a new challenge arises: can we create HR

software that truly improves productivity and, by connecting people, helps teams work better together? According to J. Bersin, this is one of the tasks of effective HR – Find opportunities to use digital technologies to improve productivity, feedback and alignment between teams across the company.

Currently, the PRC is heading towards the formation of a digital economy, that is, towards conducting business activities in which digital data is the key factor of production. Digitalization of the economy is reforming traditional economic relations and existing business models, including human resource management practices.

According to K. Bengtsson, M. Bloom, digitalization is an ongoing revolutionary change in society, which creates the need to change the management of organizations and human resources. Digitalization in organizations is perceived as external pressure from change resulting from disruptive innovations in society. In addition, digitalization refers to a deep transformation of business, implying the use of digital technologies to optimize business processes, increase company productivity and improve customer experience/

Experts talk about the digital transformation of companies – the integration of digital technologies into the company's strategy at all levels – as a way to adapt to rapidly changing conditions and, ultimately, a way to survive in competition.

Consequently, the penetration of digital technologies into the field of human resource management is not just a transition to the digital space and automation of systems, but also new thinking, a new approach to the process of interaction with people.

References

1. World Economic Forum. The future of jobs report 2018. URL: <https://www.weforum.org/reports/the-future-of-jobs-report-2018>. – Date of access: 01.08.2023.
2. Recruitment in the digital age / Bersin by Deloitte. URL: <https://www2.deloitte.com/by/ru/pages/human-capital/articles/2018/podbor-personala-vcifrovuyyu-ehpohu.html>. – Access date: 10.08.2023.
3. Vankevich, A.V. Artificial intelligence technologies in human resources management / A. V. Vankevich1, I. N. Kalinouskaya // Belarusian Economic Journal. – 2020. – No 2. – Pp. 38–51.

UDC 332.1

**COMPARATIVE ANALYSIS OF FREE
ECONOMIC ZONES' MANAGEMENT**
**СРАВНИТЕЛЬНЫЙ АНАЛИЗ УПРАВЛЕНИЯ
СВОБОДНЫМИ ЭКОНОМИЧЕСКИМИ ЗОНАМИ**

*Aliakseyeva A. *, DENG Jing*

Vitebsk State Technological University, Belarus

*e-mail: alekseeva@vstu.by**

*Алексеева Е.А. *, ДЭН Цзин*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: free trade zones, investments, innovations, international trade.

Ключевые слова: свободные экономические зоны, инвестиции, инновации, международная торговля.

Abstract. This article presents the results of a study of the specifics of goal-setting, investment and management of free economic zones in countries with different levels of economic development, and defines models of FEZ management depending on the level of economic development of countries (private, public and mixed). Based on a study of the experience of different countries, it was found that different levels of economic development are characterized by their own forms and models of FEZ management; in countries with developed economies, zones are being replaced by innovative industrial clusters, which are currently associated with innovative development strategies; the priorities of FEZ activities are increasingly shifting towards innovation and high technology; regional FEZs retain their importance, allowing to overcome the lag in territorial development and coexist with innovative industrial clusters.

Аннотация. В данной статье представлены результаты исследования особенностей целеполагания, инвестирования и управления свободными экономическими зонами в странах с разным уровнем экономического развития, определены модели управления СЭЗ в зависимости от уровня экономического развития стран (частная, государственная и смешанная). На основе изучения опыта разных стран установлено, что разные уровни развития экономики характеризуются своими формами и моделями управления СЭЗ; в странах с развитой экономикой на смену зонам приходят инновационно-промышленные кластеры, с которыми в настоящее время связываются стратегии инновационного развития; приоритеты деятельности СЭЗ все больше смещаются в сторону инноваций и высоких технологий; региональные СЭЗ сохраняют свое значение, позволяя преодолевать отставание в развитии территорий и сосуществовать с инновационно-промышленными кластерами.

SECTION 2. SOCIAL AND ECONOMIC PROBLEMS OF EDUCATION AND SCIENCE DEVELOPMENT IN THE 21st CENTURY

Free economic zones (FEZ) offer various incentives to attract foreign investors, contribute to job creation and economic growth, both directly and indirectly. They provide opportunities for skilled and unskilled labor, resulting in lower unemployment and improved living standards. Free zones also stimulate economic activity, resulting in increased demand for goods and services, which in turn creates more employment opportunities. In addition, free zones encourage innovation and entrepreneurship. They provide a favorable environment for startups to thrive with access to state-of-the-art infrastructure, low-cost resources, and a ready market. This leads to the creation of new products and services that promote economic diversification and long-term growth.

FEZs of different countries, shapes and scales have a common feature: they provide, within a certain perimeter, a regulatory regime for enterprises and investors that is different from what is usually applied in the broader national or subnational economy where they are created. The main value proposition of the FEZ is a package of tax and legislative advantages offered by a variety of economic zones, especially in developing countries.

Different levels of economic development are characterized by their own forms and models of FEZ management (Table 1).

Table 1 – Relationship of FEZ management forms and models with the level of development of national economies

The level of economic development	Forms	Investors	Management models
Developed countries	Logistics centers; innovative (technological) zones; service areas (finance)	Zones created by foreign developers or through joint ventures	Private model
With a transitional economy	Specialized zones; cross-border zones; service areas (business process outsourcing)	Zones created within the framework of public-private partnership	The state model
Developing countries	Multifunctional (multi-industry) zones; extensive areas; zones with a raw material base (aimed at the development of processing industries)	Zones created as part of partnership projects between Governments	Mixed model

FEZs operate in about 70 % of developed countries. Economic policy in developed countries is focused on equal business conditions, not on the creation of privileged areas.

Almost all zones are duty-free zones, and their importance (share) in the economy of the country of deployment is relatively small. In many developed countries, Governments are helping to create various forms of science and technology parks. In most European countries there are no free economic zones, only duty-free trade zones. However, in Bulgaria, Lithuania and Poland there are both duty-free zones and zones in which other tax benefits are offered.

In developed countries, the following forms of EZ creation prevail:

- logistics services for regional and international trade;
- innovative (technological) zones to stimulate R&D and the formation of ecosystems;
- financial flow service areas.

The rationale for creating logistics FEZs in developed countries is to reduce the distorting effect of tariffs and regulatory "costs" associated with imports. Exemption from duties and customs procedures is aimed at supporting complex cross-border supply chains.

In countries with developed economies, a private form of management of special economic zones prevails, in which developers from private companies are selected in a competitive process based on criteria established by law. They have broad operational autonomy and report to the regulatory authorities of the FEZ. In countries with economies in transition, a state form of government is common, where land plots and utilities are mainly owned by the state.

The government organizes the FEZ, the controlling body creates a state developer or a management administration. In emerging economies, a mixed form of governance is used, which is a combination of private and public models. It provides for the possibility of participation of developers from the public or private sector, who retain relatively broad autonomy in their functions.

Countries with economies in transition began to apply FEZ regimes in the 1990s. The pace of creation of new FEZs has accelerated since the second half of the 2000s, especially in the period 2015–2020, due to the creation of promising development territories in the Russian Federation as a response to the global crisis. FEZs in transition economies tend to focus on general production, although technologically oriented zones also play an important role in the Russian Federation. In addition, nine tourist zones are located in the Russian Federation.

The sectoral orientation of the FEZ often reflects the industrial traditions of the host countries and the availability of resources. Most FEZs are zones with several types of activities. In more advanced countries with economies in transition, specialized zones and innovation-oriented zones are playing an increasingly important role.

The activities of specialized zones are concentrated in a specific sector (services, resources) or industry to participate in global value chains; cross-border zones to stimulate regional cooperation and strengthen competitive advantages together with partner countries; business process service areas.

In developing countries, FEZ strategies are associated with the creation, diversification and modernization of industries through attracting foreign direct investment (FDI). Here are created:

- multifunctional (multi-industry) zones for industrial development and modernization of processing industries;
- extensive zones that are integrated with the territory of specific districts or administrative units to stimulate economic activity in backward or depressed regions;
- zones for attracting FDI within the framework of national assistance or cooperation, created in partnership between a country with an active policy of investing abroad and a low-income country.

Economic zones in developed countries are required to create an effective platform for complex cross-border supply chains, renew the country's innovative capabilities, and form a balanced economic development without sectoral distortions, taking into account the Sustainable Development Goals.

In countries with economies in transition, SEZs are set goals and objectives to stimulate the transition to a service economy, the development of new high-tech industries, the spread of technologies and externalities to traditional sectors of the economy and industry, integration within global value chains.

In developing countries, the creation of free economic zones is aimed at:

- supporting the modernization of industry;
- stimulating economic development and export diversification;
- creation of new jobs and support of high employment;
- approbation of economic reforms and improvement of the investment climate.

It should be noted that in countries with developed economies, zones are being replaced by innovation-industrial clusters, with which innovative development strategies are currently being linked. Multinational companies invest in aerospace clusters, the production of medical devices, electric and passenger cars, ICT, financial services, etc.

In some developed countries (Finland, Italy), SEZs have already given way to innovative and industrial clusters.

At the same time, the governments of developed countries in their economic policy are moving away from creating privileged areas that discriminate against firms based outside the zones, and prefer equal business conditions based on the principles of extraterritoriality and support for investment in regional development. This trend is well illustrated by the example of Poland. Poland's zones have succeeded in attracting investment and creating jobs. The advantage for investors was the exemption from corporate income tax.

As a member of the EU, Poland had to bring the preferential conditions offered to investors in the FEZ into line with the regulations of the common bloc. In 2018, the country adopted a law on the creation of the "Investment Zone of Poland". This new extraterritorial regime allowed investors to take advantage

of benefits already on the entire territory of Poland, that is, discrimination of regions was eliminated. The existing FEZ bodies have assumed the function of administering the new regime in their regions.

Polish FEZs still discriminate against a number of SMEs, since the receipt of business benefits addressed to FEZ residents depends on the size of investments. In this situation, most investment projects of small and medium-sized businesses cannot take advantage of preferences. The discriminatory nature of the FEZ was softened by the new Law on Investment Support, which lowered the criteria for receiving state support so that more SMEs could apply for it. In addition, the system has been adjusted so that investors in less developed regions can receive more generous state support.

The new criteria are based not only on quantitative indicators, but also take into account the sustainability and innovative aspects of projects.

In addition, neighboring countries such as the Czech Republic, Hungary and Slovakia offered income tax benefits to investors regardless of their location. Therefore, the zone system increased Poland's risks both as a destination for foreign direct investment and as a place for domestic investment in SMEs. Thus, changes in the preference regime have weakened discriminatory elements of Polish SEZ legislation in terms of geography and size of investments, paying more attention to external aspects, including knowledge and skills, as well as social and environmental impacts.

It should be noted that in many countries with developed and transitional economies (China, Russia, Turkey, France, the USA), the role of regional FEZS in overcoming the backlog of individual territories, expanding their industrial and innovative potential remains.

The analysis of the directions of development of FEZ in foreign economies of various levels provides the basis for the following conclusions:

- as national economies develop and their development strategies change, on the one hand, and the goals of the FEZs already operating in them are achieved, on the other, new generations of zones with goals adequate to the new national economic strategies are being created;
- the priorities of FEZ activities are increasingly shifting towards innovation and high technology;
- regional FEZs retain their importance, allowing them to overcome the lag in the development of territories and coexisting with innovation and industrial clusters;
- the discriminatory nature of the FEZ in relation to other territories is leveled through the implementation of the principles of extraterritoriality.

References

1. China Free Trade Zones: A Complete Guide [Electronic resource]. – Mode of access: <https://www.export2asia.com/blog/china-free-trade-zones/> – Date of access: 25.03.2023.

2. Competitiveness clusters [Electronic resource]. – Mode of access: <https://www.eurofound.europa.eu/observatories/emcc/erm/support-instrument/poles-of-competitiveness> – Date of access: 25.03.2023.
3. Sapir, E. V. Special economic zones in the world economy: studies. handbook for universities / E. V. Sapir, I. A. Karachev. – M.: Yurayt Publishing House, 2021. – 149 p.
4. Global Free Zones of the Year 2022 – Global winners [Electronic resource]. – Mode of access: <https://www.fdiintelligence.com/content/rankings-and-awards/global-free-zones-of-the-year-2022-81527>. – Date of access: 25.03.2023.

UDC 331.1

THE LABOUR MIGRATION TRENDS IN CHINA ТЕНДЕНЦИИ ТРУДОВОЙ МИГРАЦИИ В КИТАЕ

*Aliakseyeva A. *, LIU Guannan*

Vitebsk State Technological University, Belarus

*e-mail: alekseeva@vstu.by**

*Алексеева Е.А. *, ЛЮ Гуаньнань*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: labour migration, new urbanization, migrant workers.

Ключевые слова: трудовая миграция, новая урбанизация, трудовые мигранты.

Abstract. This article presents the results of the research on labor migration processes in China. It identifies the main features of new urbanization: urban-rural integration, industrial interaction, conservation and intensification, ecological livability and harmonious development, and the desire of small, medium and large cities to develop in harmony with small towns and new rural communities. Improving the quality of employment for rural workers and actively and continuously promoting the transformation of rural migrant workers into citizens is the ultimate goal of new urbanization. Improving the quality of employment can greatly ensure the relatively equal treatment of labor, higher income and better quality of life for rural migrant workers.

Аннотация. В данной статье представлены результаты исследования процессов трудовой миграции в Китае. Выявлены основные черты новой урбанизации: городско-сельская интеграция, промышленное взаимодействие, сохранение и интенсификация, экологическая пригодность для жизни и гармоничное развитие, а также стремление малых, средних и крупных городов развиваться в гармонии с малыми городами и новыми сельскими общинами. Повышение качества занятости

для сельских рабочих и активное и постоянное содействие превращению сельских рабочих-мигрантов в граждан являются конечной целью урбанизации нового типа. Повышение качества занятости может в значительной степени обеспечить относительно равное отношение к труду, более высокий уровень доходов и лучшее качество жизни для сельских рабочих-мигрантов.

Although China's traditional urbanisation did promote economic growth for a certain period of time, its crude development, which blindly pursued the expansion of towns and cities, resulted in a waste of resources, and the use of the migrant population to develop industries while ignoring the plight of their survival in the cities and towns led to a serious inconsistency between the pace of industrialisation and urbanisation, and the gap between the cities and the towns has been widened continuously. As the economy and society develop, traditional urbanisation is revealing more and more limitations.

In 2012, the Communiqué of the Central Economic Work Conference explicitly mentioned the concept of "new urbanisation" for the first time. In the 2014 Government Work Report, the concept of "new urbanisation with people at its core" was explicitly mentioned. The basic features of new urbanisation include six points, namely urban-rural integration, urban-rural integration, industrial interaction, conservation and intensification, ecological livability and harmonious development, and the pursuit of small, medium and large cities develop in harmony with small towns and new rural communities. The purpose of the construction of new towns is to protect local culture, with emphasis on the quality of urbanisation and ecological civilisation [2].

Professor Zhang Yulin first mentioned the term "migrant workers" in an article published in the journal Sociological Bulletin in 1984. The concept of "rural migrant workers" belongs to both the historical and economic spheres, and refers to those who have achieved non-agricultural employment in towns and cities, but still hold rural household registration. They are a special group of people created in the process of China's economic and social development, and are determined by China's special road of urbanisation and the nature of its urban-rural dualistic economic system.

In western developed countries, in the process of gradually transforming from an agricultural society to an industrial society, the process of urbanisation has advanced in parallel with the process of industrialisation, and when peasants go to the cities to work as workers, their status is also changed to urban residents accordingly, and there is no similarity with the phenomenon of rural migrant workers in China. China's dual household registration system, on the other hand, divides the country's population into urban and rural areas, severely restricting the free movement of rural labour, leading to a serious discrepancy between the development of urbanisation and industrialisation in China. Synchronisation has

also resulted in a large number of rural migrant workers being rejected by employers on the basis of their social status in the course of urban employment.

Rural workers can be divided into a broader and a narrower sense. Rural migrant workers in the broad sense include both rural labourers who work in local township and village enterprises without leaving their hometowns, and rural labourers who work far from their hometowns in other towns and cities without leaving their hometowns. Rural workers in the narrower sense generally refer to rural labourers who have left their hometowns. National statistics show that in 2021, there will be about 293 million rural migrant workers in the broad sense and 172 million in the narrow sense. This article takes the broad sense of rural migrant workers as the research object.

In order to implement the new urbanisation strategy, a series of liberal settlement policies have been introduced one after another, but the results have not been remarkable. It is thus clear that a proven way to promote the smooth implementation of the new urbanisation strategy is to increase the willingness of rural migrant workers to settle in urban areas. Migrant workers' decision to settle in cities and towns is the result of comprehensive consideration, and factors related to urban employment status have an important impact on their decision to settle in cities and towns. Stable jobs and incomes are the economic basis for settling in cities and towns, but the current status of urban employment for migrant workers is not optimistic. In 2021, the number of rural migrant workers will have risen to 29.251 million after the epidemic, and the number of local migrant workers will have risen to 29.251 million after the epidemic. The share of workers has increased further, as shown in Table 1.

Table 1 – Number of Migrant Workers in China, 2016–2021

Years	Total migrant workers (mil persons)	Local migrant workers (mil persons)	Percentage (%)	Migrant workers (mil persons)	Percentage (%)
2016	281,71	112,37	39.89	169,34	60.01
2017	286,52	114,67	40.02	171,85	59.98
2018	288,36	115,70	40.12	172,66	59.88
2019	290,77	116,52	40.07	174,25	59.93
2020	285,60	116,01	40.62	169,59	59.38
2021	292,51	120,79	41.29	171,72	58.71

Enhancing the quality of employment for rural labourers and actively and steadily promoting the transformation of rural migrant workers into citizens are not only a key task of current economic and social development, but also the ultimate goal of new-type urbanization. Improving the quality of employment

can, to a large extent, bring about relatively equal labour treatment, higher income levels and better quality of life for rural migrant workers.

Focusing on the problems in the employment process of rural migrant workers, improving the employment environment of rural migrant workers, enhancing their personal human capital, allowing them to enjoy equal employment opportunities in urban areas, and improving the quality of their urban employment from multiple perspectives are important ways to enhance their willingness to settle in urban areas. Based on the above background, it is important to explore the current situation of rural migrant workers' urban employment quality and its impact on their willingness to settle down. Suggesting effective countermeasures to promote the urban settlement of rural migrant workers can provide some reference for solving the "three hundred million" problem and promoting the construction of a new type of urbanisation.

"The 14th Five-Year Plan clearly states that the new urbanisation path with Chinese characteristics should be people-centred, constantly improve the mechanism for the integrated development of urban and rural areas, and promote the coordinated and linked development of large, medium-sized and small cities and towns. It also proposes to deepen the reform of household registration, and to actively guide agricultural migrants to settle in cities with their families on a household basis. Whether or not rural migrant workers can be successfully employed in cities and towns and thus achieve citizenship is closely related to whether or not China's industrialisation and urbanisation can be advanced in a scientific and orderly manner, and at the same time plays a fundamental role in whether or not the problem of the three rural areas can be solved. Therefore, the study of the impact of the employment quality of rural migrant workers on their willingness to settle down in cities and towns is not only of great significance from a theoretical perspective, but also from a practical perspective.

References

1. Chen Wanming, Xu Guochang, Dai Keqing, Xie Sisheng. Evaluation system of employment quality of new generation migrant workers [J] // Jiangsu Agricultural Science, 2019. – 47(20). – pp. 311–315.
2. Guo Qing. The impact of social integration on the employment quality of new generation migrant workers and its regional differences [J] // Economic Geography, 2021. – 41(3). – pp. 161–169.
3. Tao Xiafei. Influencing factors and mechanisms of the willingness of the agricultural transfer population to settle [J]. // Beijing Social Science, 2021. – 08. – pp. 98–108.
4. Zhao Mingfei, Feng Jing. Analysis of micro-influencing factors of employment quality of migrant workers [J] // Academic Exchange, 2020. – 09. – pp. 102–111.

UDC 658.562

**QUALITY MANAGEMENT CONCEPT IN THE
CONTEXT OF DIGITALIZATION**
**КОНЦЕПЦИЯ УПРАВЛЕНИЯ КАЧЕСТВОМ В
КОНТЕКСТЕ ЦИФРОВИЗАЦИИ**

*Aliakseyeva A. *, Shpartova V.*

Vitebsk State Technological University, Belarus

*e-mail: alekseeva@vstu.by**

*Алексеева Е.А. *, Шпартова В.Н.*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: quality management, digital information, digital technologies, blockchain.

Ключевые слова: управление качеством, оцифрованная информация, цифровые технологии, блокчейн.

Abstract. This article presents the results of a study of changes in quality management under the influence of the digital transformation of enterprises. Information on the practical implementation of blockchain technology in areas close to solving the problem of improving the quality management system is briefly reviewed. Their successful implementation confirms the possibility of using this technology to solve the problem of managing transaction costs, as well as informing all participants in the market exchange process. The proposed technology can be used in the formation of a system for informing the end consumer of the quality management system about the current state of the quality of goods and services in the consumer market.

Аннотация. В данной статье представлены результаты исследования изменений в управлении качеством под влиянием процесса цифровой трансформации предприятий. Кратко рассмотрена информация о практической реализации технологии блокчейн в областях, близких к решению задачи совершенствования системы менеджмента качества. Их успешная реализация подтверждает возможность использования данной технологии для решения задачи управления транзакционными издержками, а также информирования всех участников рыночного обменного процесса. Предложенная технология может быть использована при формировании системы информирования конечного потребителя системы менеджмента качества об актуальном состоянии качества товаров и услуг на потребительском рынке.

The previous technologies under human control are being replaced by artificial intelligence and machine (IT) control technologies – cloud solutions, the Internet of Things (IoT), machine learning, artificial intelligence,

blockchain, predictive analytics, virtual and augmented reality, etc. Digital transformation affects an increasing number of areas of activity of each enterprise or organization. Quality management issues are not left aside. The “prospect” or desired results of digital transformation in this area are improving the quality of a product or service, compliance with regulatory requirements, improving the decision-making process, increasing the efficiency of activities while reducing risk [1].

At the present stage of development, quality management uses many well-known IT technologies that allow achieving these goals: electronic document management (EDM systems), enterprise resource planning (ERP systems), customer relationship management systems (CRM), business process management (BPM), etc.

Digital transformation suggests taking the next step – transferring manual quality management operations to digital form. There are many tasks in quality management that require significant human resource expenditures, for example, collecting and analyzing data on products, processes and organization systems, monitoring and managing processes, making decisions based on actual data, identifying and analyzing risks, etc.

The main direction of solving the problem of improving the quality management system at the present stage is the creation of equal information conditions for the manufacturer, large retailer and end consumer; reducing transaction costs by disclosing their structure and content to the entire range of stakeholders. Transaction costs should become as accessible and transparent as possible. Moreover, the transition of the world economy to the active phase of digitalization makes this problem practically solvable [2].

The basic technologies of digitalization, which can be used as a basis for a modern quality management system, include cloud computing, big data, cognitive technologies, and distributed ledger (chain of transaction blocks/Block Chain).

Let's take a closer look at the latter methodology. In translation, Block Chain is a chain of blocks that are assigned a certain sequence. The essence of the methodology is to build distributed databases, each record of which contains information about the history of ownership, making it extremely difficult to falsify it (information). The chain of blocks is constantly growing, each new block is added to its end, without changing the contents of the previous ones, but adjusting the final information.

Blockchain is a single protected data registry presented in the form of electronic files. Accordingly, one block can be copied and write off information many times. It is possible to build different types of services on this technology. In particular, it is possible to organize both private and public services.

Private blockchain is mainly used for the functioning of private businesses. It is closed, centralized and subordinate to the goals of the organization. Its maintenance and control are carried out by the creators themselves.

It is opposed to a public blockchain. Anyone can join such systems, they are administered by the community itself. However, this does not mean that it is completely open and unprotected. There is a decentralized server that ensures security and uninterrupted operation in this case, putting timestamps and providing peer-to-peer network connections. Such chains of blocks are usually used to register events, data transactions, manage identification and confirm the authenticity of the source.

Currently, the number of commercial projects based on blockchain technology in various fields of industry, trade, transport, and medicine is steadily growing. Let's consider some of them.

Provenance – founded in 2014 in London (UK). It is designed to strengthen customer trust in brands and retailers by providing key information about each product: materials, ingredients, suppliers, production processes, equipment used, storage conditions, transportation, and much more. Each stage of the product's life cycle is tracked and recorded on the blockchain, after which this information is verified and made publicly available. The full “history” of a product can be viewed using the Provenance app or integrated into the company’s website as electronic receipts, or issued via URL and/or QR code.

ShipChain: an Ethereum-based logistics platform founded in 2017 in Los Angeles (USA). Focused on cargo transportation, it allows tracking the transportation of goods from the moment of shipment from production to the final transfer to the customer. Member of the Blockchain in Transport Alliance (BiTA). Promotes the product for widespread use by freight forwarding companies. Uses the immutability and decentralization of blockchain technology and IoT devices. To collect information about the movement and conditions of cargo transportation in real time, it creates a “history” of the life cycle. Allows you to automate logistics processes related to data exchange, document flow and financial settlements.

Waltonchain: IoT software founded in 2016 in Shenzhen, China. It is one of the enterprise-level logistics and supply chain solutions that integrate RFID and IoT data into the blockchain. It is well supported in China and other Southeast Asian countries.

TE-Food: is engaged in food tracking. Founded in 2015 in Albstadt, Germany. It unites producers, distributors, retailers and consumers of food products to eliminate fraud in the food industry and reduce companies' logistics costs. It uses RFID tags to track the time and place of food production, the conditions under which raw materials are produced, and the time of delivery to the supermarket. All information is recorded in the blockchain and provided to the buyer via QR codes.

MediLedger: its task is the logistics of medical drugs. The platform was developed in 2017 in San Francisco (California, USA). Tracks the origin of pharmaceuticals in accordance with the rules of the Drug Supply Chain Security Act (DSCSA). Focused on storing synchronized public data, guaranteeing all

network participants a common "source of truth"; ensures the confidentiality of data on transactions; uses smart contracts to ensure compliance with business rules and the execution of transactions within the system. Maximally protects the personal data of users, guarantees that they will not be published, transferred, sold or used without the knowledge and consent of their source. Information in the MediLedger network is not available even to the Chronicled manager, unless their source wants it.

Briefly considered information on the practical implementation of blockchain technology in areas close to solving the problem of improving the quality management system. Their successful implementation confirms the possibility of using this technology to solve the problem of managing transaction costs, as well as informing all participants in the market exchange process. Consequently, the proposed technology can be used in the formation of a system for informing the end consumer of the quality management system about the current state of the quality of goods and services in the consumer market.

References

1. Васильев, В. А., Александрова, С. В. Цифровые технологии в управлении качеством // Известия ТулГУ. Технические науки. 2020. № 10. – URL: <https://cyberleninka.ru/article/n/tsifrovyye-tehnologii-v-upravlenii-kachestvom>. – Дата обращения: 28.09.2023.
2. Васильев, В. А., Александрова, С. В., Летучев, Г. М. Цифровые технологии в управлении качеством // Идеи и новации. 2022. Т. 10. № 1–2. – С. 125–129.

UDC 339.56:687(476)
JEL F13, L67, O57, C82

DYNAMICS OF FOREIGN TRADE BALANCE OF CLOTHING GOODS IN BELARUS

ДИНАМИКА ВНЕШНЕТОРГОВОГО САЛЬДО ТОВАРОВ ОДЕЖДЫ БЕЛАРУСИ

Букаш К.

Vitebsk State Technological University, Belarus
e-mail: krbykoff@mail.ru, krbykoff@gmail.com

Быков К.Р.

Витебский государственный технологический университет,
Республика Беларусь

Keywords: balance, export, import, clothing, mutual trade, foreign trade, commodity group.

Ключевые слова: сальдо, экспорт, импорт, одежда, взаимная торговля, внешняя торговля, товарная группа.

Abstract. The article gives a definition of the balance of foreign trade. An analysis of foreign trade in clothing goods of Belarus in mutual trade with member countries and with third countries was carried out. An assessment is made of the dynamics and changes in foreign trade indicators in the context of product groups and foreign trade partners. The main conclusions have been drawn about foreign trade in clothing goods in Belarus for the development of management decisions.

Аннотация. В статье дано определение сбалансированности внешней торговли. Выполнен анализ внешней торговли товарами одежды Республики Беларусь во взаимной торговле со странами-членами и с третьими странами. Дана оценка динамике и изменению показателей внешней торговли в разрезе товарных групп и внешнеторговых партнеров. Сделаны основные выводы внешней торговли товарами одежды Республики Беларусь для выработки управленческих решений.

Various theoretical and practical aspects of the balance of the national economy, industry, types of economic activities and issues related to the study of foreign trade as a source of balanced economic growth were considered in the works of domestic and foreign scientists and researchers [1]. In our opinion, one of the conditions for balanced foreign trade is the rapid growth of exports over imports, ensuring the contribution of the system (industry, enterprises) to economic growth without creating trade and budget imbalances [1]. Let's consider the dynamic changes in foreign trade of clothing (C14) of the Republic of Belarus by trade areas based on EEC statistical data for 2015–2021. and the TN VED EAEU Classifier [2]. The methodological approach to studying foreign trade C14 is based on economic and statistical analysis of the dynamics of foreign trade indicators.

Let's analyze the dynamic changes in the foreign trade balance in Belarus' foreign trade in clothing goods (C14) in general and by area.

Based on the results of a study of the dynamics of foreign trade in clothing goods in Belarus, it can be noted that, in general, there has been a steady growth in foreign trade turnover of clothing in monetary terms in 2015–2019. due to an increase in the value of exports from the EAEU countries and imports from countries outside the EAEU. The negative impact of the COVID-19 pandemic (2020) led to a reduction in the solvency of key partners and a significant decrease in demand for clothing in foreign trade of Belarus.

In 2021, there is a recovery and increase in demand in the foreign market in the context of a revival of global business activity, which contributed to the resumption of positive dynamics in foreign trade turnover of clothing. As a result, the total volume of clothing exports exceeded imports in monetary terms by an average of 1.2 times for 2015–2021. (except for 2018 and 2019) there was a positive foreign trade balance for Belarus (Table 1).

Table 1 – Dynamics of the balance of foreign trade in clothing goods in Belarus (dollars in millions, \$)

Indicators	Year							Percent of the previous year					
	2015	2016	2017	2018	2019	2020	2021	2016	2017	2018	2019	2020	2021
Balance	80,7	112,3	30,2	-7,5	-38,8	30,7	37,3	139,2	26,9	–	517,3	–	121,5
EAEU member states	173,9	204,9	250,1	279,6	261	196,7	258,6	117,8	122,1	111,8	93,3	75,4	131,5
non-EAEU countries	-93,2	-92,6	-219,9	-287,1	-299,8	-166	-221,3	99,4	237,5	130,6	104,4	55,4	133,3

Source: author's development based on EEC data (codes 61, 62, 6309 and 6310 of the TN VED EAEU) [1, 2].

Its overall value is due to the positive balance in the republic’s foreign trade with the EAEU countries. This indicates, on the one hand, the balance of foreign trade flows of clothing and their strengthening in monetary terms since 2015, which acts as a positive effect. On the other hand, the balance of foreign trade in clothing with countries outside the EAEU for Belarus remained negative for the entire study period (see Table 1).

According to the data presented in Table 1, the positive balance of mutual trade in clothing goods between Belarus and the EAEU was formed mainly due to export-import supplies with Russia. On the one hand, this situation in mutual trade is explained by deep integration processes between countries within the Union State, the volume of mutual trade in cooperative goods and other production and economic factors. On the other hand, Belarusian clothing turnover indicates a high dependence on the Russian market and risks in the future. This is explained by the greatest focus of Russia’s trade turnover on markets outside the EAEU (on average, the share of Russian clothing goods with third countries was 70,4 %). The main reasons for this situation can be considered Russia’s accession to the WTO, which resulted in a reduction in the customs and tariff protection of the EAEU, as well as the policy of developing import-substituting industries and their subsidies by the state.

In the analyzed period, mutual trade in clothing between Belarus and Russia is characterized as balanced. This is explained by the excess value of exports of clothing from Belarus to Russia in product groups 61 and 62 over import flows, which resulted in a positive balance of mutual trade (Table 2).

**SECTION 2. SOCIAL AND ECONOMIC PROBLEMS OF EDUCATION
AND SCIENCE DEVELOPMENT IN THE 21st CENTURY**

Table 2 – Dynamics of the balance of foreign trade in clothing goods between Belarus and Russia by product groups and types (dollars in millions, \$)

Year	Commodity group and type of clothing according to TN VED EAEU codes				Total
	61	62	6309	6310	
2015	70,7	94,0	0,0	1,5	166,2
2019	109,3	121,2	16,0	3,3	249,8
2020	70,7	100,2	14,5	3,8	189,2
2021	96,7	129,6	15,3	3,3	244,9

Source: author’s development based on EEC data (codes 61, 62, 6309 and 6310 of the TN VED EAEU) [1, 2].

Based on the results of a study of the dynamics of the volume of foreign trade in clothing between Belarus and countries outside the EAEU in the context of product groups and main types of goods, the following situation is observed.

From 2015 to 2021 As a result of the excess value of imports over exports of clothing, a negative balance was formed in the foreign trade of Belarus with countries outside the EAEU at the expense of all product groups and product (6309) – “Used clothing” (Table 3).

From the above indicators it follows that over the entire period of the study, the largest negative contribution to the foreign trade balance of clothing goods between Belarus and third countries was made by product groups 61, 62 and goods (6309). At the same time, the negative balance of goods (6309) rapidly increased in dynamics in monetary terms (except for 2020) with clothing product groups.

Table 3 – Dynamics of the foreign trade balance of clothing goods between Belarus and third countries by product groups and types (dollars in millions, \$)

Year	Commodity group and type of clothing according to TN VED EAEU codes				Total
	61	62	6309	6310	
2015	-27,8	-51,6	-16,8	3,0	-93,2
2016	-42,4	-33,6	-20,0	3,6	-92,4
2017	-113,4	-62,8	-48,7	3,3	-221,4
2018	-144,2	-72,5	-73,8	3,5	-287,0
2019	-123,1	-92,7	-87,3	3,4	-299,7
2020	-57,6	-53,1	-58,7	3,2	-166,2
2021	-86,7	-75,7	-62,6	3,6	-221,3

Source: author’s development based on EEC data (codes 61, 62, 6309 and 6310 of the TN VED EAEU) [1, 2].

Conclusion. Thus, the study of export-import flows of clothing goods of the Republic of Belarus by trade directions allowed us to draw a number of conclusions, highlighting the positive and negative aspects.

The positive aspects of the clothing trade for Belarus include:

1) in general, a steady increase in foreign trade turnover of clothing in monetary terms in 2015–2019. due to an increase in the value of exports from the EAEU countries and imports from third countries;

2) as a result of the excess of the total volume of clothing exports over imports in monetary terms by an average of 1.2 times for 2015–2021. (except for 2018 and 2019) there was a positive foreign trade balance.

Negative aspects in foreign trade in clothing in Belarus:

1) trade turnover in trade directions is unbalanced, with the EAEU its share was 61.3%, with third countries – 38.7 %;

2) in the distribution of trade turnover in foreign trade, Russia occupies the largest share – 97.6 %. Consequently, Belarusian trade turnover indicates a high dependence of export-import flows on the Russian market and risks in the future;

3) imports of clothing from third countries show a negative trend in the growth of the negative balance, including due to an increase in the negative balance of goods (6309) from 16.8 to 62.6 million US dollars.

Thus, the study of foreign trade in clothing goods in Belarus by trade areas for 2015–2021. allowed us to identify its positive and negative sides. The results of this study can be taken into account in the process of taking measures and management decisions aimed at ensuring a balanced foreign trade of the republic in clothing goods.

References

1. Быков, К. Р. (2023). Экспортно-импортные товарные потоки текстиля и одежды Республики Беларусь: анализ сбалансированности и определение положительных и отрицательных сторон. Вестник Полоцкого государственного университета. Серия D. Экономические и юридические науки, (1), С. 6–15. <https://doi.org/10.52928/2070-1632-2023-63-1-6-15>.
2. Евразийская экономическая комиссия (ЕЭК) [Электронный ресурс]. – Режим доступа: <http://eec.eaeunion.org>. – Дата доступа: 20.08.2023.

UDC 330.34

**CHINA'S INDUSTRIALIZATION:
THE NECESSITY AND FEATURES OF THE MODEL**

**ИНДУСТРИАЛИЗАЦИЯ КИТАЯ:
НЕОБХОДИМОСТЬ И ОСОБЕННОСТИ МОДЕЛИ**

Chen Shuai, Nikonova T.V. , Chebotareva O.G.***

Vitebsk State Technological University, Belarus

e-mail: vstu_info2015@mail.ru , chebotariova@mail.ru***

Чэнь Шуань, Никонова Т.В. , Чеботарёва О.Г.***

Витебский государственный технологический университет,

Республика Беларусь

Keywords: new industrialization, information structure, strategic system, innovation, necessity, prerequisites.

Ключевые слова: новая индустриализация, информационная структура, стратегическая система, инновации, необходимость, предпосылки.

Abstract. After more than 20 years of rapid development of reforms and openness, China has said goodbye to a deficit economy, and the overall level of development has reached a new level. However, structural contradictions in economic activity are very noticeable, which seriously restricts the further development of China's economy and affects the improvement of China's international competitiveness. Structural adjustment is necessary not only to maintain the sustainable development of the national economy, but also to solve international problems. The article presents the features of the industrialization of the Chinese economy. The main stages of industrialization are highlighted and their characteristics are given. The problems of China's industrialization and the reasons that cause them are described below.

Аннотация. После более чем 20 лет стремительного развития реформ и открытости Китай распрощался с дефицитной экономикой, и общий уровень развития достиг нового уровня. Однако структурные противоречия в экономической деятельности очень заметны, что серьезно ограничивает дальнейшее развитие экономики Китая и влияет на повышение международной конкурентоспособности Китая. Структурная перестройка необходима не только для поддержания устойчивого развития национальной экономики, но и для решения международных задач. В статье представлены особенности индустриализации китайской экономики. Выделены основные этапы индустриализации и дана их характеристика. Ниже описываются проблемы индустриализации Китая и причины, которые их вызывают.

Since the 1990s, the wave of information technology sweeping the world has had an increasingly profound impact on the development of the world economy

and the progress of human society. China is bound to integrate into the process of globalization and information technology in an all-round and high-level way. However, the task of China's industrialization, overall is still in the middle stage of industrialization, dual structure, industrial structure level, competitiveness is not strong, agricultural modernization and rural urbanization level is low, industrial especially manufacturing technology level is not high, the proportion of services and level compared with the developed countries, therefore, continue to complete industrialization and speed up the informatization process is still an important and arduous historic task in China's process of modernization.

Since the 20th report of the Communist Party of China proposed that "adhere to the industrialization by industrialization, and create a new way of industrialization with high scientific and technological content, good economic benefits, low resource consumption, less environmental pollution, and full play to the advantages of human resources", the new industrialization has become a hot topic of discussion. China's new industrialization is not a copy of the industrialization of developed countries, but an innovation to adapt to the new trend of world economic development. China's new-type road to industrialization must coordinate the relationship between industrialization, informatization and urbanization and other aspects, as well as the rapid growth of resources, environment and economy, population and employment, urban and rural dual economic structure and other contradictory constraints. Using the theories and methods of development economics, industrial economics and institutional economics, this paper puts forward the path and operational framework of promoting the new industrialization by combing the relevant literature of industrialization, structural optimization, industrial development and institutional research. On this basis, the China's new industrialization development path as a perspective, with China's economic structure leapfrog upgrade and institutional arrangement as the main line, the overall strategy of China's new industrialization, industrial integration, system innovation, not only has important theoretical significance, and to build a well-off society in an all-round way, promote China's economic and social comprehensive, harmonious and healthy development has important realistic guiding significance.

China's new industrialization is the effective institutional arrangements necessary for the construction of the new industrialization strategy. The in-depth study of the world economic history shows that institutional innovation is the most important factor that leads the United States, Germany and Japan to catch up compared with the United Kingdom. Those who catch up all start from their own national conditions and take institutional innovation as a sharp weapon.

Based on the results of previous research, Combined with the latest progress in China's new industrialization, Mainly from the following three aspects of the research, First, the content and overall strategic positioning of China's new industrialization and the framework of the new industrialization road are in-depth elaborated and analyzed; Second, on the basis of the knowledge-based

research on China's industrial structure, The idea of accelerating the integration of information industry to promote the new road of industrialization, This paper discusses the information transformation of traditional industry, the interaction between urbanization and new industrialization, and the path selection of new rural industrialization; Third, the innovation puts forward the strategic conception and policy suggestions to promote China's new industrialization and the corresponding institutional arrangements.

China has reduced several centuries of Western (and Japanese) development to three decades. His path to industrialization went through three main stages:

1) 1978–1988: protoindustrialization. This stage showed the growth of millions of rural enterprises (collectively owned rather than privately owned by farmers) in the vast countryside and small towns of China; these enterprises were the engine of growth of the national economy during the first 10 years of economic reform. The number of rural enterprises has increased more than 12 times (from 1.5 million up to 18.9 million), the gross output of rural industry increased more than 13.5 times (from 14 % of gross domestic product or GDP to 46 % of GDP), the number of rural peasant workers grew to almost 100 million by 1988, and the total earnings of farmers increased 12 times. Due to such a phenomenal growth in the supply of basic consumer goods in the mid-1980s, China ended the stage of the economy in conditions of resource scarcity (a typical feature of all countries with centralized economic planning, characterized by rationing of meat, other food, clothing and other basic consumer goods) and at the same time solved its food security problem. 800 million farmers were the biggest beneficiaries of economic reform during this period.

2) 1988–1998: the first industrial revolution. At this stage, the mass production of labor-intensive lightweight consumer goods in rural and urban areas of China, primarily relying on imported equipment, was demonstrated. During this period, China has become the world's largest producer and exporter of textiles, the largest producer and importer of cotton, as well as the largest manufacturer and exporter of furniture and toys. Rural enterprises continued to grow strongly, and their workers reached 30 % of the total rural labor force in China (not counting migrant workers). The volume of industrial production in the villages increased by 28 % per year, doubling every three years (an astronomical increase of 66 times) between 1978 and 2000.

3) 1998 – present: the second industrial Revolution. This phase was distinguished by the mass production of mass production facilities. Due to the rapidly and extremely expanding domestic market for intermediate goods, equipment and vehicles, there has been a big surge in the consumption and production of coal, steel, cement, chemical fibers, machine tools, highways, bridges, tunnels, ships, etc. A total of 2.6 million miles of public roads were built, including more than 70,000 miles of expressways (46 % more than in the United States). In 28 provinces (out of 30) there are high-speed trains (the total

length of which exceeds 10,000 miles, which is 50 % more than in the rest of the world).

For most countries, the important role of industrialization is to drive the rapid growth of economic aggregate and improve the quality of economic growth. However, the structural problems in the process of industrialization in China for many years have affected the efficiency and growth trend of economic operation for quite a long time.

First of all, the structural deviation in industrialization makes China's economic growth restricted by demand. If the industrial structure of a country deviates greatly from the general pattern for a long period, it will inevitably be a structural deviation, which indicates that the production structure does not adapt to the general demand structure determined by the level of per capita income. Although due to history and system, industrial consumption proportion in the consumption structure has been high and formed the inertia, but the demand structure changes in material product demand proportion decline and service product demand proportion of the proportion of the proportion of the trend (engel's theorem shows the universality of the trend), the demand for industrial products cannot be restricted by this trend. As a result, under the condition that the market mechanism plays a regulatory role and no external intervention, the relative excess of industrial products and idle production capacity of industrial products are more and more prominent. On the surface, this is the influence of insufficient aggregate demand, which is actually the restriction of demand structure caused by the deviation of industrial structure.

Secondly, the structural deviation in industrialization reduces the quality of China's economic growth. The first is that the low proportion of the tertiary industry affects the improvement of the efficiency of the primary and secondary industries and the whole economic growth. A large part of the tertiary industry is for the primary and secondary industries to expand the production scale and improve the production efficiency services. For example, transportation, post and telecommunications, commerce, warehousing, finance and insurance, education, scientific research, technical services and other industrial sectors are not only the intermediate link connecting production and market, but also an important condition for other industries to improve the level of development. The lagging development of these tertiary industry sectors will affect the coordinated growth of the primary and secondary industries and even the whole economy and the improvement of the growth efficiency. The proportion of education, scientific research and technology services in China has always been very low. There is a big gap between the development level of these industrial sectors and that of other countries in the same period, which also directly restricts the development of the primary and secondary industries. Second, the slow upgrading of the industrial structure has affected the improvement of the quality of the industrial sector and the overall economic growth. The rapid development and the increase of the proportion of heavy manufacturing industry

are the basic conditions for the transformation of the growth mode and the improvement of the quality of growth. It is also an important prerequisite for the transformation of the industrial structure from high industrialization to technological intensification and the improvement of the quality of industrial growth, especially for China, a large developing country like China.

On this basis, taking the development path of China's new industrialization as the perspective, taking the leapfrog development of China's economic structure and its institutional arrangement as the main line, and conducting systematic research on the overall strategic positioning, industrial integration and institutional innovation in the promotion of China's new industrialization. China's new industrialization involves a wide range of contents. Thus, these questions should form the basis of our next study.

UDC 338.1

**EFFICIENT TAX ADMINISTRATION
ЭФФЕКТИВНОЕ НАЛОГОВОЕ
АДМИНИСТРИРОВАНИЕ**

Dombrovskaya E.

Vitebsk State Technological University, Belarus

e-mail: dombrovskaya64@mail.ru

Домбровская Е.

Витебский государственный технологический университет,

Республика Беларусь

Keywords: taxation, efficient tax administration, tax authorities, efficiency, tax system, tax payers, electronic services.

Ключевые слова: налогообложение, эффективное налоговое администрирование, налоговые органы, эффективность, налоговая система, плательщики налогов, электронные сервисы.

Abstract. The article examines the concept and essence of tax administration, its tasks at the present stage of development of the tax system of the republic. Criteria for the effectiveness of tax administration are formulated. An analysis of the development of tax administration in the Republic of Belarus is carried out, and an assessment of its elements is given. Directions for further improvement of the tax administration system have been identified.

Аннотация. В статье рассматривается понятие и сущность налогового администрирования, его задачи на современном этапе развития налоговой системы республики. Сформулированы критерии эффективности налогового администрирования. Проведен анализ развития налогового администрирования в Республике Беларусь, дана

оценка его элементов. Определены направления дальнейшего совершенствования системы налогового администрирования.

The formation of budget revenues of a modern state is carried out mainly through taxation, the participants of which are, on the one hand, taxpayers – legal entities and individuals, and on the other hand, government bodies (tax, customs, etc.). The implementation of the main objectives of the state tax policy (ensuring timely and full receipt of taxes to the budget without worsening the situation of taxpayers) is possible with competent tax management, including tax administration.

A number of authors believe that tax administration is a government activity to monitor compliance with tax legislation. In our opinion, this is too narrow an understanding of the essence of tax administration and its role in the country's tax system. Most authors are of the opinion that tax administration is a management activity of the state aimed at ensuring the effective functioning of the country's tax system. In such a broad interpretation, tax administration includes the performance of the following functions: tax planning and forecasting, tax accounting and control, analysis of tax revenues and the impact of taxes on the results of activities of payers, organization of the work of tax authorities and their interaction with payers, tax regulation (prompt change in tax conditions). Taking into account the above, we can define that tax administration is a system of public management of tax relations at the national and local levels. Considering the high importance of the tax system, the task of developing tax administration is of great importance for ensuring the economic growth of the Republic of Belarus in modern conditions and requires further theoretical understanding, development of methodological and practical recommendations for solving it.

The subject of tax administration is tax relations and tax proceedings, the subjects are tax and other government bodies. Effective tax administration is tax administration that meets the following performance criteria: effectiveness, efficiency and quality.

The effectiveness of tax administration can be assessed by the following indicators: the total amount of tax revenues to the budget, the amount of arrears, the amount of tax payments per payer, etc. It should be noted that the efficiency of tax administration in the Republic of Belarus is quite high. According to the tax authorities, in 2022, the tax authorities ensured that the consolidated budget received more than Br36.5 billion in revenue, which amounted to 102.9 % of planned assignments, including more than Br13.97 billion (102.3 %) to the republican budget. to local budgets – almost Br22.6 billion (103.2 %). Moreover, more than 97 % of taxes were received voluntarily [1].

The profitability of tax administration lies in reducing the costs of its implementation. This is facilitated by the improvement of the tax control system and a shift in emphasis to the area of desk audits.

The quality of tax administration is a comprehensive characteristic of the work of tax and other government bodies. Obtaining a positive assessment from payers of the quality of work of tax authorities, an increase in the number of payers of taxes and fees, a reduction in debt on tax payments, pre-trial settlement of controversial issues in the field of tax relations, the level of tax collection, the effectiveness of tax audits, the presence or absence of conflicts between the payer and the tax authority, and etc. – all this relates to assessing the quality of tax administration. Simplification of the mechanism for calculating and paying taxes, improving tax legislation (has become more understandable for the payer), the use of information technology, and interaction with tax authorities of other countries help improve the quality of tax administration and its effectiveness.

The development strategy of the tax authorities of the Republic of Belarus for 2021–2023 [2] provides for the following areas for increasing the efficiency of tax administration:

1. Introduction of a system for managing the risks of non-compliance by payers of taxes, fees (duties) with legislation, resulting in budget losses (including automation of basic supporting procedures).

2. Updating analytical tools for tax control. In particular, to increase the efficiency of tax control and simplify the work of payers, further development of the AIS (automated information system) “Control work” and AIS “Calculation of taxes” is planned. The use of AIS allows not only to improve the quality and efficiency of tax control, but also to form the basis for tax planning, forecasting, and analysis.

3. Improving the collection of indirect taxes when trading goods and services between business entities of the EAEU member states.

4. Expanding the range of electronic digital services. Much has already been done in this direction, in relation to both legal entities and individuals. The priority in the work of the tax service is to build a client-oriented approach to organizing work with individuals and legal entities. In regional and district cities, payer service centers have been opened and are successfully operating, a number of electronic services have been introduced to reduce the time spent servicing payers, increase the level of tax literacy and culture of interaction with tax authorities, and simplify the procedures for the fulfillment of tax obligations by payers. These services include: Payer’s Personal Account, Tax Calculator, Service for searching information on rates, Create your own business (step-by-step instructions for those who want to open their own business), Mobile application (for paying taxes) and others. Based on the results of a personal survey of individuals classified as self-employed and payers of professional income tax, it was revealed that the new service “Mobile application “Professional Income Tax” introduced in 2023 is convenient and easy to use.

Tax authorities need to continue working to create simpler and more convenient conditions for the voluntary fulfillment of tax obligations by payers in terms of payment of income tax (given its high fiscal significance), property taxes (land tax, real estate tax, transport tax), obtaining the necessary information, clarifications on issues of application of tax legislation, fulfillment of tax obligations. This work requires constant improvement of the qualification level of tax authorities.

Reducing the administrative burden, simplifying tax administration procedures and improving their quality should lead to the following positive results, ensuring the development of the tax system of our country:

- increase the collection of taxes and fees to the budget;
- create more comfortable conditions for servicing payers in tax authorities, reduce the number of conflict situations between payers and tax authorities;
- to form a positive attitude of payers towards tax responsibilities and tax administration;
- to increase the interest of citizens and business entities in creating and developing businesses in our country.

References

1. МНС: в 2022 году в консолидированный бюджет поступило более Br36,5 млрд. [Электронный ресурс]. Режим доступа: <https://pravo.by/novosti/obshchestvenno-politicheskie-i-v-oblasti-prava/2023/january/72999/> – Национальный правовой Интернет-портал Республики Беларусь. – Дата доступа: 10.11.2023.
2. Стратегия развития налоговых органов Республики Беларусь на 2021–2023 годы / утверждена решением коллегии Министерства по налогам и сборам Республики Беларусь от 27 ноября 2020 г. [Электронный ресурс]. Режим доступа: <https://www.nalog.gov.by/about/#heading-development-strategy>. – Дата доступа: 20.11.2023.

UDC 332.05

**CLUSTER ANALYSIS OF REGIONAL
INNOVATION POTENTIAL OF LATVIA,
LITHUANIA AND BELARUS**

**КЛАСТЕРНЫЙ АНАЛИЗ РЕГИОНАЛЬНОГО
ИННОВАЦИОННОГО ПОТЕНЦИАЛА
ЛАТВИИ, ЛИТВЫ И БЕЛАРУСИ**

Gladevich J.

Daugavpils University, Latvia

e-mail: jevgenijs.gladevics@gmail.com

Гладевич Е.Г.

Даугавпилсский Университет, Латвия

Keywords: innovation potential, cluster analysis, factor profile, factor location.

Ключевые слова: инновационный потенциал, кластерный анализ, профиль факторов, положение факторов.

Abstract. Researches of innovation potential are becoming increasingly relevant in our time. Its role is becoming increasingly important not only at the state, but also at the regional level. The purpose of this study is to assess the factors of innovation potential of the regions of Latvia, Lithuania and Belarus and divide them into clusters. To achieve the goal, the author sets several tasks: to assess the factors of the innovative potential of Latvia, Lithuania and Belarus, their structure, divide the regions into clusters and determine the profile and position of the innovative potential of these regions. The author identifies existing problems of interaction between factors of innovative potential of the regions of Latvia, Lithuania and Belarus and suggests ways to solve them.

Аннотация. Исследования инновационного потенциала становятся все более актуальными в наше время. Его роль становится все более значимой не только на государственном, но и на региональном уровне. Целью данного исследования является оценка факторов инновационного потенциала регионов Латвии, Литвы и Беларуси и разделение их на кластеры. Для достижения цели автор ставит несколько задач: оценить факторы инновационного потенциала Латвии, Литвы и Беларуси, их структуру, разделить регионы на кластеры и определить профиль и положение инновационного потенциала данных регионов. Автор выявляет существующие проблемы взаимодействия факторов инновационного потенциала регионов Латвии, Литвы и Беларуси и предлагает пути их решения.

In today's world, research related to the development of innovation potential is becoming more and more relevant. This is explained by the fact that

innovation potential is a very important element in ensuring the development and competitiveness of the country, and especially of the regions. The analysis of innovation potential factors provides an opportunity to determine the weak points of regional development and to find opportunities for solving the given problems.

The purpose of the study: to assess the innovation potential factors of the regions of Latvia, Lithuania and Belarus, to divide them into clusters.

To achieve the given goal, the following research tasks have been set:

- to assess the innovation potential factors of the regions of Latvia, Lithuania and Belarus;
- to divide the regions of Latvia, Lithuania and Belarus into clusters;
- to determine the factors profile and location of the innovation potential of the regions of Latvia, Lithuania and Belarus.

The scientific novelty of the study: a profile of the factors forming the innovation potential of the regions of Latvia, Lithuania and Belarus has been determined, which allows for a deeper analysis of the aspects of the development of the innovation potential, to identify existing problems and to find ways to solve them.

The practical application in the national economy is significant. The research can be used in practice at various levels of state structures to develop policies that would stimulate the introduction and development of innovations in specific regions. The regions of Latvia, Lithuania and Belarus are divided into clusters according to the analysis of innovation potential factors, regions with an abundance/lack of various factors have been identified, recommendations have been made for the implementation of cooperation and development programs at the regional and national level.

The author studies the innovation potential of the region according to the following factors [1, 2, 3]:

- scientifically technical and educational factors, which include the number of scientific research centers and the number of people employed in them, the number of students in secondary schools of general education, the number of students enrolled in vocational schools and universities, etc. indicators in relative units of measurement;
- labor force factors, which include population density, population up to working age, at the working age, above working age, natural increase, migration rate, level of demographic burden, economic activity, etc. indicators in relative units;
- economic investment factors, which include GDP, value-added indicators by types of activity, distribution of companies by main types of activity, volumes of accumulated direct foreign investments, volumes of non-financial investments, inflation, average wages, number of companies, etc. indicators in relative units;

SECTION 2. SOCIAL AND ECONOMIC PROBLEMS OF EDUCATION AND SCIENCE DEVELOPMENT IN THE 21st CENTURY

- infrastructure factors, which include the relative indicators of the region's territorial area, distribution of the territory by land type, road density, computer and Internet availability, purposes of Internet use, provision of passenger cars, etc. indicators in relative units;
- ecological factors, which include indicators of emissions of harmful substances into the atmosphere (kg per capita), relative indicators of the chemical composition of harmful substances.

The author divides the regions of Latvia, Lithuania and Belarus into clusters according to the factors structure of the regions' innovation potential (see Figure 1).

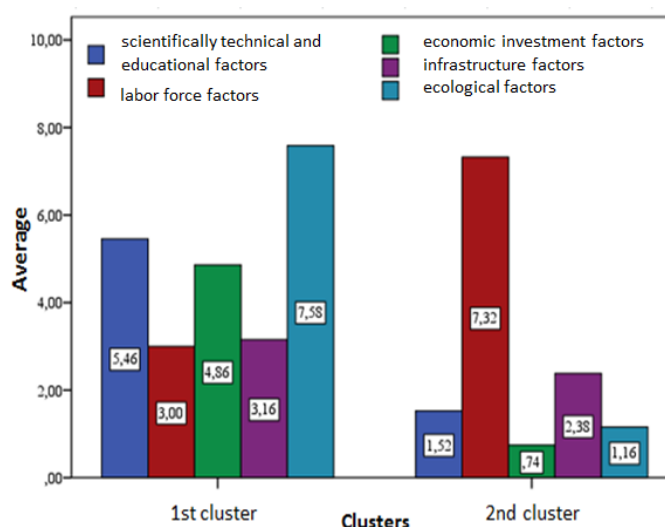


Figure 1 – The structure of innovation potential clusters in the regions of Latvia, Lithuania and Belarus according to the integral normalized values of the objective indicators

Source: created by the author in the SPSS program based on statistical data calculations of the regions of Latvia, Lithuania and Belarus

The factor structure of the innovation potential of the regions of Latvia, Lithuania and Belarus according to the integral normalized values of the objective indicators (see Figure 1) shows that these regions can be divided into two clusters. In the first cluster, ecological factors have the highest value with an absolute value of 7.58, while infrastructure factors (3.16) and labor factors have the lowest values (3.00). In the second cluster, labor factors are in first place with an absolute value of 7.32, which greatly exceeds the values of the other factors: the absolute values of infrastructure factors are three times lower, scientific, technical and educational factors – 5 times, ecological factors – 6 times, and the absolute value of economic investment factors is almost 10 times lower.

The distribution of regions in clusters is as follows:

– 1st cluster: Riga region, Pieriga region, Vidzeme region, Kurzeme region, Zemgale region, Latgale region, Vilnius county, Alytus county, Kaunas county, Klaipeda county, Marijampole county, Panevežus county, Siauliai county, Taurage county, Utena county, Minsk city;

– 2nd cluster: Telšiai county, Brest oblast, Vitebsk oblast, Gomel oblast, Grodno oblast, Minsk oblast, Mogilev oblast.

The first cluster includes all regions and counties of Latvia and Lithuania, except for the Telšiai county, which is included in the second cluster, and Minsk city - the capital of Belarus, and the second cluster - all oblasts of Belarus, except for the capital of the country.

According to the author, it would be useful to develop cooperation between the regions of the two clusters by attracting labor factors from the second cluster to the regions of the first cluster, because there is a large surplus of them in the second cluster and they are not used fully, but the regions of the second cluster have a rather low level of infrastructural factors and absolutely certainly – the level of other factors is extremely insufficient. By combining factors, the development of the studied regions would reach a new level of development.

Summary

The regions of Latvia, Lithuania and Belarus can be divided into two clusters according to the integral normalized values of the objective indicators. The first cluster consists of regions of Latvia and Lithuania (except Telšiai county) and Minsk. The second cluster includes Telsiai county and all oblasts of Belarus except Minsk. In the first cluster, the level of labor factors is too low and the values of other factors are relatively high. The regions of the second cluster have a very high level of labor factors and a low level of other factors. There are a little more infrastructure factors, but their level is certainly not sufficient either. The first cluster is more homogeneous in terms of scientific and technical, education, economic investment, infrastructure, ecological factors, while the second cluster is in terms of workforce potential. Thus, the author recommends developing cross-border cooperation, compensating insufficient factors and attracting factors from other regions.

References

1. Freeman, C. (2017). *The Economics of Industrial Innovation*. Abingdon: Routledge.
2. Fukuda, K., Watanabe, C. (2012). *Innovation Ecosystem for Sustainable Development*. *Sustainable Development – Policy and Urban Development – Tourism, Life Science, Management and Environment* (478). DOI: 10.5772/26626.
3. Санто, Б. (1990). *Инновация как средство экономического развития*. Пер. с венг. с изм. и доп. авт.; Общ. ред. и вступ. ст. Б. В. Сазонова. – Москва : Прогресс. – 295 с. – Режим доступа: <https://search.rsl.ru/ru/record/01001552007>. – Дата доступа: 30.08.2023.

UDC 331

**EVALUATION OF THE IMPACT OF EDUCATION
AND PROFESSIONAL TRAINING**

**ОЦЕНКА ВЛИЯНИЯ ОБРАЗОВАНИЯ И
ПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКИ**

*LiuYang, Zaitseva O.V.**

Vitebsk State Technological University, Belarus

*e-mail: olgazaitseva@gmail.com**

*Лю Янг, Зайцева О.В.**

Витебский государственный технологический университет, Республика

Беларусь

Keywords: education, economic growth, social mobility, human capital, inequality, innovation.

Ключевые слова: образование, экономический рост, социальная мобильность, человеческий капитал, неравенство, инновации.

Abstract. This article highlights the vital role of education in a country's economic growth and social development. It emphasizes that education helps reduce social inequality, unemployment, and crime, thereby enhancing quality of life and social stability. The relationship between education and social mobility is underscored, with higher education levels linked to better economic dynamics and health outcomes. To improve educational efficiency, the text suggests initiatives such as better career guidance, mentorship for young professionals, feedback mechanisms between universities and industries, and a shift from theoretical to practical learning experiences. These measures aim to foster human capital development and align education with labor market needs.

Аннотация. В этой статье рассказывается о важнейшей роли образования в экономическом росте и социальном развитии страны. В ней подчеркивается, что образование помогает снизить социальное неравенство, безработицу и преступность, тем самым повышая качество жизни и социальную стабильность. Подчеркивается взаимосвязь между образованием и социальной мобильностью: более высокий уровень образования связан с более высокими показателями экономической динамики и здоровья. Для повышения эффективности образования в статье предлагаются такие меры, как совершенствование профориентации, наставничество для молодых специалистов, механизмы обратной связи между университетами и промышленными предприятиями, а также переход от теоретического к практическому обучению. Эти меры направлены на развитие человеческого капитала и приведение образования в соответствие с потребностями рынка труда.

Education is one of the most significant factors in a country's economic growth. This helps to minimize factors such as: social inequality, crime rates, unemployment. As a result, education leads to increased social stability and improved quality of life for people [1]. Education and vocational training have an important impact on economic growth and innovation, mainly in terms of accumulating human capital, promoting technological innovation and transformation, attracting investment and contributing to economic development; they affect the acquisition of knowledge and skills, the improvement of critical thinking and problem-solving skills, and personal growth and self-fulfilment of individuals. The level of social mobility has a great impact on economic and social development. Societies with high mobility have more dynamic economies, while societies with low mobility have less dynamic economies. Among the many factors affecting social mobility, the educational factor is crucial. The return to society from education is higher because there are many other benefits of education that are not directly expressed in the form of taxes. An increase in education in a country can help reduce inequality, increase returns on other assets, increase social stability, reduce crime rates, increase life expectancy, etc. Higher levels of education also lead to better health outcomes [2].

To increase the efficiency of both enterprises and higher educational institutions, it is necessary to provide conditions for the successful implementation of personnel. Suggestions to improve the current situation include: better career guidance activities in schools and secondary specialized educational institutions; providing additional jobs for young professionals to learn from the experience of the older generation with its subsequent replacement; ensuring the possibility of obtaining a completed higher education; creation of feedback between universities and enterprises for the possibility of adjusting curricula taking into account the needs of labor activity; redistribution of educational process programs from theoretical to practical orientation, transfer of great practical skills; official employment of students during internships and the combination of work activities and the educational process to gain work experience.

References

1. Esen, E. The relationship between educational expenditure & economic growth: the case of Turkey / Esen, E. // *Econ. Bus. Polit. Stud.* – 2020. – № 7. – P. 114–126.
2. Zhu, X. The impact of education on economic growth. An empirical study based on the EBA model / Zhu X. // *Interdisciplinary Mathematics.* – 2021. – № 17. – P. 67–79.

UDC 331

**DEVELOP HUMAN RESOURCE MANAGEMENT
IN THE DIGITAL ECONOMY**

**РАЗВИТИЕ УПРАВЛЕНИЯ ЧЕЛОВЕЧЕСКИМИ
РЕСУРСАМИ В УСЛОВИЯХ ЦИФРОВОЙ
ЭКОНОМИКИ**

*Mao Yanhong, Zaitseva O.V.**

Vitebsk State Technological University, Belarus

*e-mail: olgazaitseva@gmail.com**

*Мао Яньхун, Зайцева О.В.**

Витебский государственный технологический университет,

Республика Беларусь

Keywords: human resource management, digital economy, digital skills, workforce planning.

Ключевые слова: управление человеческими ресурсами, цифровая экономика, цифровые навыки, планирование трудовых ресурсов.

Abstract. In the digital economy, effective human resource management is essential for organizational success. This text explores strategies for developing HR in the digital era, focusing on technology adoption, strategic alignment, cultural transformation, data-driven decision-making, and continuous upskilling. Embracing digital tools, fostering a digital-friendly culture, and leveraging data analytics are crucial for HR's evolution. By investing in digital literacy and strategic workforce planning, HR can play a pivotal role in driving digital transformation and optimizing talent management to meet the demands of the digital economy.

Аннотация. В условиях цифровой экономики эффективное управление человеческими ресурсами является залогом успеха организации. В статье рассматриваются стратегии развития управления человеческими ресурсами в цифровую эпоху с упором на внедрение технологий, стратегическое согласование, культурную трансформацию, принятие решений на основе данных и непрерывное повышение квалификации. Внедрение цифровых инструментов, формирование культуры, ориентированной на цифровизацию, а также использование аналитических данных имеют решающее значение для эволюции управления человеческими ресурсами. Инвестируя в цифровую грамотность и стратегическое кадровое планирование, управление человеческими ресурсами может сыграть ключевую роль в развитии цифровой трансформации и оптимизации управления талантами в соответствии с требованиями цифровой экономики.

Developing human resource management in the digital economy is essential for organizations to effectively leverage technology and talent in a rapidly evolving business landscape. As companies embrace digitalization, the role of human resources (HR) is undergoing significant transformation. In this text, we will explore key strategies for developing human resource management in the digital economy.

First and foremost, HR departments need to adapt to the changing demands of the digital economy by embracing technology. This involves implementing digital tools and platforms for recruitment, onboarding, training, performance management, and employee engagement. Leveraging applicant tracking systems, virtual onboarding solutions, learning management platforms, and digital performance evaluation tools can streamline HR processes, improve efficiency, and enhance the overall employee experience.

Moreover, in the digital economy, HR professionals are increasingly becoming strategic business partners. They play a vital role in aligning the organization's talent strategy with its digital transformation objectives. This includes identifying the skills and competencies required for digital initiatives, implementing workforce planning to address future talent needs, and fostering a culture of continuous learning and innovation. By working closely with other business functions, HR can ensure that the organization has the right talent to drive digital initiatives forward.

In addition, fostering a digital-friendly workplace culture is critical for HR management in the digital economy. This entails promoting collaboration, agility, and a growth mindset among employees. HR can champion the adoption of digital collaboration tools, flexible work arrangements, and initiatives that support work-life balance. Encouraging a culture of experimentation and adaptation to change is also crucial in a digitally-driven environment.

Furthermore, data-driven decision-making is becoming increasingly important in HR. In the digital economy, HR departments have access to a wealth of data related to employee performance, engagement, and retention. By leveraging people analytics and predictive modeling, HR can gain valuable insights into workforce trends, identify areas for improvement, and make informed decisions to drive business outcomes. This data-driven approach can help optimize talent management strategies and enhance the overall effectiveness of HR initiatives.

Lastly, developing digital skills and digital literacy among HR professionals themselves is paramount. HR teams need to stay abreast of technological advancements, understand digital tools and platforms, and be able to harness data for strategic decision-making. Investing in training and upskilling HR staff in areas such as data analysis, digital HR platforms, and emerging technologies is crucial for driving HR's effectiveness in the digital economy.

In conclusion, developing human resource management in the digital economy requires a multifaceted approach that encompasses technology

adoption, strategic alignment, cultural transformation, data-driven decision-making, and continuous upskilling. By embracing these strategies, organizations can position HR as a strategic partner in driving digital transformation, fostering a digitally-enabled workplace, and optimizing talent management to meet the demands of the digital economy.

UDC 338.3

**MANAGEMENT OF ASSORTMENT POLICY OF
THE ORGANIZATION IN THE CONTEXT OF
DIGITALIZATION**

**УПРАВЛЕНИЕ АССОРТИМЕНТНОЙ
ПОЛИТИКОЙ ОРГАНИЗАЦИИ В УСЛОВИЯХ
ЦИФРОВИЗАЦИИ ЭКОНОМИКИ**

*Podolyak V., Zaitseva O.V.**

Vitebsk State Technological University, Belarus

*e-mail: olgazaitseva@gmail.com**

*Подольак В., Зайцева О.В.**

Витебский государственный технологический университет,

Республика Беларусь

Keywords: assortment policy, digitalization, data-driven approach.

Ключевые слова: ассортиментная политика, цифровизация, data-driven подход.

Abstract. In today's digital business environment, effectively managing assortment policies is essential for organizational success. This article examines the significance of assortment policy management within the context of digitalization. It discusses the advantages of leveraging consumer data, personalized offerings, and the flexibility of online platforms. While digitalization presents opportunities, it also brings challenges such as data analysis complexities and the need for adaptability. Ultimately, embracing digitalization for assortment management can lead to heightened customer satisfaction, improved sales, and a competitive edge in the market.

Аннотация. В современной цифровой бизнес-среде эффективное управление ассортиментной политикой является залогом успеха организации. В статье рассматривается значение управления ассортиментной политикой в контексте цифровизации, преимущества использования данных о потребителях, персонализированных предложений и гибкости онлайн-платформ. Несмотря на то, что цифровизация открывает новые возможности, она также порождает и проблемы, такие как сложность анализа данных и необходимость адаптации. В конечном итоге использование цифровых технологий для

управления ассортиментом продукции может привести к повышению удовлетворенности клиентов, улучшению продаж и конкурентному преимуществу на рынке.

Nowadays, companies cannot ignore the processes of digitalisation, as it affects companies at all levels. If a company wants to be a market leader, it must adequately offer digitalised solutions, created in a collaborative process of product development and digital transformation of economic activity.

Digitalisation should be understood as the process of introducing digital technologies into companies' business processes. It differs from automation in that it involves not only the modernisation of equipment, but also management, corporate culture and communication. The expected result should be increased employee productivity and higher levels of customer satisfaction. If successful, the company will gain a reputation for being progressive and modern.

To survive in the emerging digital economy, companies must implement modern technological solutions that allow them to compete with new market entrants and create their own advantages. Adopting change quickly and flexibly enables companies to respond successfully to external challenges. The challenge of digitalisation is to change the speed of decision making and to adapt quickly to the external environment in order to fully meet the needs of customers. In the course of these processes, the management of the company is simplified; existing solutions allow for a more detailed and comprehensive view of the business, a more careful adjustment of goals and objectives, the observation of dynamic fluctuations and the identification of key factors.

Managing the assortment policy of an organization in the context of digitalization is crucial for staying competitive in today's rapidly evolving business landscape. With the advancement of digital technologies, businesses are presented with both opportunities and challenges when it comes to effectively managing their product offerings. In this text, we will explore the key aspects of managing assortment policy within the digitalization context.

One of the primary advantages of digitalization for assortment management is the access to vast amounts of consumer data. Through digital channels, businesses can gather valuable insights into consumer behavior, preferences, and market trends. This data can be leveraged to make informed decisions about product assortment, ranging from introducing new products to discontinuing underperforming ones. Understanding customer preferences through data analysis is essential for optimizing the assortment policy to meet changing consumer demands.

Digitalization also enables businesses to personalize their product offerings. By utilizing customer data and leveraging technologies such as artificial intelligence and machine learning, organizations can tailor their assortments to individual preferences. This personalization can lead to increased customer satisfaction and loyalty, as customers feel that the products offered are more

relevant to their needs. It also allows for targeted marketing and upselling opportunities based on individual customer profiles.

Furthermore, digitalization has transformed the way assortments are presented and distributed. With the rise of e-commerce and online marketplaces, organizations can expand their assortments beyond physical store limitations. This provides an opportunity to offer a broader range of products to customers, catering to diverse needs and preferences. Additionally, digital platforms allow for more agile assortment management, as businesses can quickly test new products, respond to market trends, and adjust their offerings in real time.

Despite the benefits, managing assortment policy in the digital era comes with challenges. The volume of data available requires robust analytical tools and processes to extract meaningful insights effectively. Organizations must invest in technologies and talent capable of analyzing and interpreting data to make informed assortment decisions. Additionally, the rapid pace of technological change necessitates a flexible approach to assortment management, as businesses need to adapt to emerging trends and consumer behaviors.

In conclusion, managing assortment policy in the context of digitalization demands a strategic and data-driven approach. Organizations need to harness digital technologies to gather insights, personalize offerings, and adapt to the dynamic market landscape. By effectively managing their assortments in the digital era, businesses can enhance customer satisfaction, drive sales, and gain a competitive edge in the market. Embracing digitalization as a tool for assortment management can position organizations for sustainable growth and success.

UDC 339.9

**INTERNATIONAL INTEGRATION AS A FORM
OF INTERNATIONAL COOPERATION**
**МЕЖДУНАРОДНАЯ ИНТЕГРАЦИЯ КАК ФОРМА
МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА**

Savetnikava V.

Vitebsk State Technological University, Belarus

e-mail: sovetnikova@bk.ru

Советникова О.П.

Витебский государственный технологический университет,

Республика Беларусь

Keywords: integration processes, globalization, world economy, economic growth, international economic integration.

Ключевые слова: интеграционные процессы, глобализация, мировая экономика, экономический рост, международная экономическая интеграция.

Abstract. The article examines various approaches to the definition of "international economic integration"; defines the main components of the process of international economic integration; identifies its features and advantages. The main trends and directions of integration formations in the world economy are considered.

Аннотация. В статье рассмотрены различные подходы к дефиниции «международная экономическая интеграция»; определены основные составляющие процесса международной экономической интеграции; выявлены ее признаки и преимущества. Рассматриваются основные тенденции и направления интеграционных образований в мировой экономике.

In modern conditions, the increasing internationalization and openness of national economies, the international division of labor, dynamic changes in market conditions, the expansion of the production cycle, financial flows, labor movement beyond national borders, modern systems of transport, communication and information and other factors contribute to the rapid development of integration processes and their transition to a new qualitative level.

The current stage of development of the world economy is characterized by the transition to a post-industrial mode of production, acceleration of scientific and technological progress, growth of labor productivity based on intangible factors of production and international competitiveness of leading entities of the world economy.

In this regard, an in-depth study of the concept of innovative development of countries of the world under the influence of cyclical factors is becoming increasingly important for economic science and business practice.

Currently, there are two trends in the world economy. On the one hand, the integrity of the world economy is strengthening, its globalization, which is caused by the development of economic ties between countries, trade liberalization, the creation of modern communication and information systems, world technical standards and norms. On the other hand, there is an economic rapprochement and interaction of countries at the regional level, large regional integration structures are being formed – developing in the direction of creating relatively independent centers of the world economy.

In economic literature, there is no clear and unambiguous definition of the term "international economic integration". Belarusian and foreign authors in their studies provide a large number of different definitions of this concept. In the broadest sense, the term "integration" (from Latin integration – whole) is usually understood as the unification of various parts into a single whole.

The concept of integration as a new economic category was one of the first to be introduced into scientific circulation by the Dutch economist, Nobel Prize

winner in economics J. Tinbergen (1903–1994). He identified not only positive but also negative aspects of international economic integration.

A significant contribution to the development of the theory of international economic integration was made by functionalists, who believed that integration is a process of gradual transition from the traditional system of interstate cooperation in the region to the formation of supranational structures and the transfer of powers of sovereign states to these structures [1, p. 46].

Thus, the concept of integration is a complex, contradictory, multifaceted process of unification of adjacent states into a single territory, covering economic, political, financial and trade ties between the countries participating in the integration, which should be considered as a system of definitions of all phenomena and processes arising from the socialization of production and economies of states.

The process of international economic integration includes six main components:

- international division of labor;
- increasing the degree of openness of national economies;
- intensifying the development of international economic relations;
- growth of integration of the economies of the countries of the world;
- increase in the homogeneity of economic life;
- increase in scientific and technological progress.

The main features of international economic integration are:

- interpenetration of national production processes;
- structural changes in the economies of the participating countries;
- the need for and targeted regulation of integration processes.

The advantages of international economic integration include:

an increase in the size of the market – a manifestation of the effect of scale of production;

- increased competition between countries;
- ensuring better terms of trade;
- expansion of trade in parallel with the improvement of infrastructure;
- the spread of the latest technologies.

The negative consequences of international economic integration are:

– the outflow of resources (factors of production) from developing countries to developed countries;

– an increase in prices for goods as a result of oligopolistic collusion between transnational corporations of the participating countries;

- the effect of losses from an increase in the scale of production.

In the modern economy, various forms of international economic integration can be considered: preferential zone; free trade zone; customs union; common market; economic union; economic and monetary union.

An important tool for the development of an integration association is the development of a strategic planning system that allows for the implementation

of the set development goals, taking into account the strategic priorities of the member states, emerging risks and opportunities in the global economy.

Recognizing the specifics of external conditions and striving to form a high-tech and innovative Eurasian space, digital transformation of economies, stimulation of business activity and ensuring positive changes in the lives of citizens, the heads of state of the EAEU member states defined the vector of further development of the Union by adopting the Declaration on the Further Development of Integration Processes within the EAEU on December 6, 2018, and the Strategic Directions for the Development of Eurasian Economic Integration until 2025 on December 11, 2020, which became a logical continuation of the initiatives reflected in the Declaration.

Strategy-2025 is a program document for the development of the Union, which contains specific steps to improve Eurasian economic integration and represents the transition from the stage of formation (2015–2019) to the stage of project integration (2020–2025), allowing to provide conditions for specific joint economic projects both at the interstate level and at the level of individual economic entities. One of the possible ways of integrating a region into the global economy are joint and foreign organizations that promote development through cooperation and a properly chosen development strategy. In a competitive environment in the production of products, large enterprises seek to reduce their costs, while ensuring that product quality requirements are met. Most of the world's leading manufacturers focus on performing strategic functions and the most important production operations, mainly engaged in the final assembly of products, the development of new models and marketing.

Interstate integration is one of the most effective mechanisms for overcoming global crises in various spheres of human activity. Integration processes at the interstate level are the object of international legal regulation.

Thus, modern integration is an instrument of world politics, with the help of which the world community unites to effectively solve global problems of our time. Globalization processes enable modern states and regions to carry out integration processes. It is also a mechanism for effective interaction aimed at finding joint answers to the challenges and threats of the modern world and, as a result, ensuring sustainable and effective development. International economic integration plays an important role in the modern world, helping to use raw materials, fuel and labor resources more rationally, improving interregional ties.

At the same time, international economic integration contributes to the development of lagging countries, involving them in international economic relations; creates favorable opportunities for the development of mutually beneficial economic relations; allows for the coordination of economic policy issues, which leads to a decrease in the level of international tension.

References

1. Mis'ko, O. N. International economic integration / Saint Petersburg, ITMO University. – 2015. – 174 p.
2. Official website of the World Bank / [Electronic resource]. – Mode of access: <https://www.worldbank.org>. – Date of access: 13.09.2023.

UDC 331.101.39

**KPI: CHARACTERISTICS, INDICATORS,
PECULIARITIES OF DEVELOPMENT**

**КПИ: ХАРАКТЕРИСТИКИ, ПОКАЗАТЕЛИ,
ОСОБЕННОСТИ РАЗРАБОТКИ**

*Stalmashevskaya A., Zaitseva O.V.**

Vitebsk State Technological University, Belarus

*e-mail: olgazaitseva@gmail.com**

*Стальмашевская А., Зайцева О.В.**

Витебский государственный технологический университет,

Республика Беларусь

Keywords: KPIs, performance measurement, organizational performance, business environment.

Ключевые слова: KPIs, измерение эффективности, эффективность организации, бизнес-среда.

Abstract. This text explores the critical aspects of Key Performance Indicators (KPIs), examining their characteristics, indicators, and peculiarities of development. Effective KPIs possess traits such as relevance, measurability, actionability, and timeliness, aiding in the evaluation of an organization's progress. The development of KPIs encompasses financial, customer, operational, and employee indicators, each offering unique insights into different facets of organizational performance. Collaboration, flexibility, and alignment with strategic objectives are essential for successful KPI development and ongoing refinement.

Аннотация. В статье рассматриваются важнейшие аспекты ключевых показателей эффективности (KPI), изучаются их характеристики, показатели и особенности разработки. Эффективные KPI-системы обладают такими характеристиками, как релевантность, измеримость, применимость и своевременность. Разработка KPI охватывает финансовые, потребительские, производственные показатели и показатели работы персонала, каждый из которых дает уникальное представление о различных аспектах деятельности организации. Для успешной разработки и постоянного

совершенствования KPI необходимы взаимодействие, гибкость и согласованность со стратегическими целями.

Key Performance Indicators (KPIs) are vital tools for measuring and evaluating an organization's progress towards its strategic goals. KPIs 'help define and measures the organizational goals, which is fundamental to any ongoing organization and the success sustainability of any company' [1]. They provide a quantitative assessment of performance, enabling firms to track their success and make informed decisions. In this text, we will delve into the characteristics, indicators, and peculiarities of developing KPIs.

The main characteristics of KPIs include:

- **Relevance:** Effective KPIs are directly aligned with the organization's strategic objectives, reflecting key areas of performance critical for achieving success.

- **Measurability:** KPIs should be quantifiable, allowing for clear and objective measurement. Whether in monetary terms, percentages, or other units, a KPI's measurement should be clearly defined.

- **Actionable:** KPIs should provide insights that prompt action. They should help identify areas for improvement, facilitating informed decision-making and performance management.

- **Timeliness:** KPIs should be measured and reported on a regular and timely basis to enable ongoing monitoring and corrective action when necessary.

Among the indicators and peculiarities from the development are the following:

- **Financial KPIs:** These indicators focus on financial performance, encompassing metrics such as revenue growth, profit margins, return on investment (ROI), and operating expenses. Financial KPIs provide a clear picture of an organization's overall financial health and performance.

- **Customer KPIs:** Customer-centric indicators evaluate aspects like customer satisfaction, retention rates, acquisition costs, and lifetime value. These KPIs provide insights into customer loyalty, market positioning, and the effectiveness of marketing and sales efforts.

- **Operational KPIs:** These indicators assess the efficiency and effectiveness of operational processes. Examples include production output, cycle times, waste reduction, and inventory turnover. Operational KPIs measure the organization's ability to deliver products or services effectively.

- **Employee KPIs:** Focused on human capital, these indicators track employee engagement, turnover rates, productivity, and training effectiveness. Employee KPIs are crucial for understanding and optimizing the performance of the workforce.

- **Development Peculiarities:** When developing KPIs, organizations must carefully consider the specific needs and nuances of their industry, business model, and strategic objectives. KPIs should undergo regular review and

refinement, incorporating feedback and changes in the business environment. Flexibility is essential, as KPIs may need adjustment to remain relevant over time.

Furthermore, the key to effective KPI development lies in collaboration across departments and levels of the organization. Involving relevant stakeholders ensures that KPIs are aligned with business objectives and empower all levels of the organization to contribute to the achievement of strategic goals.

In conclusion, KPIs are essential for gauging organizational performance and driving strategic decision-making. By embodying key characteristics and leveraging industry-specific indicators, organizations can develop KPIs that provide actionable insights for continuous improvement and success. Flexibility and alignment with strategic objectives are central to the ongoing development and refinement of KPIs, ensuring their relevance and effectiveness in a dynamic business environment.

References

1. Asih, Ia, Purba, Humiras, Sitorus, Tosty. (2020). KEY PERFORMANCE INDICATORS: A SYSTEMATIC LITERATURE REVIEW. P. 142–155.

UDC 331.5

UNEMPLOYMENT AND ITS CONSEQUENCES FOR THE ECONOMY OF THE REPUBLIC OF BELARUS

БЕЗРАБОТИЦА И ЕЕ ПОСЛЕДСТВИЯ ДЛЯ ЭКОНОМИКИ РЕСПУБЛИКИ БЕЛАРУСЬ

Staselko V. , Zaitseva O.***

Vitebsk State Technological University, Belarus

e-mail: staselko1994@mail.ru , olgazaitseva@gmail.com***

Стаселько В.М. , Зайцева О.В.***

Витебский государственный технологический университет,

Республика Беларусь

Keywords: unemployment, labor market, unemployment rate, employment rate, labor resources.

Ключевые слова: безработица, рынок труда, уровень безработицы, уровень занятости, трудовые ресурсы.

Abstract. One of the socio-economic problems of any society is unemployment, which is inextricably linked to people and their productive activities. This problem is also relevant for the Republic of Belarus. The article describes the main problems of unemployment and ways of solving them. Special

attention is paid to the study of labour market indicators in the Republic of Belarus, characterising the trends of their development. The article focuses on the measures of state regulation of the labour market.

Аннотация. Одной из социально-экономических проблем любого общества является проблема безработицы, которая неразрывно связана с людьми, их производственной деятельностью. Для Республики Беларусь данная проблема также актуальна. В статье содержатся основные проблемы безработицы и пути их решения. Особое внимание уделено исследованию показателей рынка труда в Республике Беларусь, характеризующих тенденции ее развития. Акцентировано внимание на мерах государственного регулирования рынка труда.

Unemployment is a phenomenon organically linked to the labour market. According to the definition of the International Labour Organisation, a person is unemployed if he/she is currently without work, is looking for a job and is ready to start it. Unemployment as an official phenomenon was recognised in the Republic of Belarus in 1991, when the first unemployed people appeared. According to the Law of the Republic of Belarus "On Employment of the Population of the Republic of Belarus" [2], the unemployed are "able-bodied citizens of working age who are permanent residents of the territory of the Republic of Belarus, who do not have a job, are not engaged in entrepreneurial activity, are not studying in full-time educational institutions or are not performing military service and are registered with the State Employment Service".

In Table 1, we analyse the labour market indicators in the Republic of Belarus for 2017–2022.

According to Table 1, the number of labour resources of the Republic of Belarus is decreasing every year. Thus, if in 2017 the labour force amounted to 5714.9 thousand people, in 2021 it will be already 5654.6 thousand people. The share of labour resources in the population is within 60 %. The decrease in the number of labour resources is accompanied by a decrease in the employed population from 4353.6 thousand people in 2017 to 4215.9 thousand people in 2022.

The number of unemployed in Belarus decreases every year. If in 2017 the number of unemployed was 293.4 thousand people, in 2022 it will be 180.0 thousand people. The unemployment rate in the country is quite low and will be 3.6 % in 2022. The low unemployment rate in Belarus can be partly explained by the fact that many unemployed citizens do not want to register with employment services or exchanges. The main reason is the low level of the benefit, which is time-limited and paid only for the first six months. Depending on how long a person has been unemployed, the amount of the benefit varies between 0.7 and 2 basic units [2]. In addition, in order to receive a small

**SECTION 2. SOCIAL AND ECONOMIC PROBLEMS OF EDUCATION
AND SCIENCE DEVELOPMENT IN THE 21st CENTURY**

allowance, an unemployed person is obliged to take part in social work, such as picking potatoes in collective fields or cleaning streets and yards.

Table 1–Analysis of labor market indicators in the Republic of Belarus for 2017-2022

Показатель	Year					
	2017	2018	2019	2020	2021	2022
Labour resources, thousand people	5714,9	5697,6	5697,9	5684,3	5654,6	н.д.
Share of labour resources in population, %	60,4	60,4	60,5	60,6	60,8	н.д.
Employed population, total, тыс. чел.	4353,6	4337,9	4334,2	4319,6	4284,5	4215,9
Employment rate of the population, %	67,2	67,5	67,7	67,5	67,3	67,7
Number of unemployed (ILO), in thousands	293,4	244,9	213,3	206,2	196,9	180,0
Unemployment rate, as a percentage of the labour force	5,6	4,8	4,2	4,0	3,9	3,6
Nominal accumulated average monthly wage of employees, rubles	822,8	971,4	1092,9	1254,6	1443,5	1633,2
Ratio of average monthly wages to the minimum subsistence budget of the active population, %	386,9	416,2	429,4	445,6	461,1	494,5

Source [4, 5, 6, 7, 8].

The nominal accrued average monthly wage of employees increased by 98.49 % and amounted to 1,633.2 roubles in 2022. However, the increase in the average monthly wage is taking place against a background of high inflation, which means that real household incomes are low.

The ratio of the average monthly wage to the minimum subsistence budget of the working population in 2022 is 494.5 %. This means that the average monthly salary is 4.9 times the size of the minimum subsistence budget.

The main problems of the labour market in Belarus include

- an increase in the number of informal workers, the growth of shadow employment, which does not allow for an analysis of employment in the country, a decrease in the amount of taxes received by the budget;
- low wages in most regions of the country;

- hidden unemployment, which makes it impossible to monitor the state of the labour market;
- low unemployment benefits;
- a reduction in production, which subsequently serves as a surplus of labour;
- a decline in the number of economically active people;
- strong territorial differentiation of employment: differences in unemployment rates between active and depressed regions.

The challenge for the government of the Republic of Belarus is to provide opportunities and incentives to increase productive investment and create jobs, while ensuring the protection of workers' rights.

Ensuring effective employment of the population is a priority in the social policy of the Belarusian state. The right to work, as the most dignified way of self-affirmation of a person, is enshrined in the Constitution of Belarus [1].

In order to ensure the implementation of the state policy in the field of employment promotion, labour protection and effective development of the labour market, the Council of Ministers of the Republic of Belarus adopted the State Programme "Labour Market and Employment Promotion" for 2021–2025. Within the framework of the programme implementation it is planned to [3]:

- Improving the regulatory legal framework in the field of labour and employment of the population in order to stimulate the development of employment, including flexible forms that do not require permanent presence at the workplace;
- Improving the quality of employment services based on the development of the State Employment Service;
- Using new information opportunities and ensuring the availability of information resources in the field of employment for the population in order to improve the mechanism of informing them about employment in various regions of the Republic;
- Raising awareness of the population about employment opportunities when moving to another locality; developing new directions of active employment policy;
- Raising the population's awareness of employment opportunities when moving to another locality; developing new directions of active employment policy;
- Promoting the employment of young people to gain practical work experience;
- Promoting the employment of women with minor children and children with disabilities;
- Creating conditions for the integration of people with disabilities into the labour market;
- Creating conditions for prolonging working lives by encouraging the use of the labour potential of older workers;

- Developing a system of work motivation for certain categories of citizens who have lost their social ties as a result of prolonged isolation;
- etc.

Summarizing the above, it should be noted that the radical reform of the labour market in Belarus, the stabilisation of employment and employment require a change in approaches to regulating the labour market, the creation of a national regulatory concept regulating the implementation of a set of measures ensuring the effective functioning of the labour market and its elements at three levels: the state (or macro), regional and local.

References

1. Конституция Республики Беларусь 1994 года / Бизнес-инфо [Электронный ресурс]. – Режим доступа: <https://bii.by/tx.dll?d=32170&f=%E1%E5%EB%E0%F0%F3%F1%E8#f>. – Дата доступа: 24.03.2023.
2. О занятости населения Республики Беларусь / Бизнес-инфо [Электронный ресурс]. – Режим доступа: <https://bii.by/tx.dll?d=87949&f=%EF%EE%F1%EE%E1%E8%E5+%E1%E5%E7%F0%E0%E1%EE%F2%E8%F6%E5#a16>. – Дата доступа: 24.03.2023.
3. Рынок труда и содействие занятости» на 2021–2025 годы / Министерство труда Республики Беларусь [Электронный ресурс]. – Режим доступа: https://mintrud.gov.by/system/extensions/spaw/uploads/flash_files/GP-employment-2021-2025-2.pdf. – Дата доступа: 24.03.2023.
4. Труд и занятость в Республике Беларусь, 2020 / Национальный статистический комитет Республики Беларусь [Электронный ресурс]. – Режим доступа: <https://www.belstat.gov.by/upload/iblock/c17/c1758aafc21ec069dafba92b27dea768.pdf>. – Дата доступа: 24.03.2023.
5. Труд и занятость в Республике Беларусь, 2022 / Национальный статистический комитет Республики Беларусь [Электронный ресурс]. – Режим доступа: <https://www.belstat.gov.by/upload/iblock/f8d/khx7ijznwe89pxggf1p0qbmfrvrcsi0.pdf>. – Дата доступа: 24.03.2023.
6. Уровень безработицы / Национальный статистический комитет Республики Беларусь [Электронный ресурс]. – Режим доступа: <http://dataportal.belstat.gov.by/Indicators/Preview?key=204013>. – Дата доступа: 24.03.2023.
7. Численность занятого населения в среднем за период / Национальный статистический комитет Республики Беларусь [Электронный ресурс]. – Режим доступа: <http://dataportal.belstat.gov.by/Indicators/Preview?key=153171>. – Дата доступа: 24.03.2023.
8. Численность трудовых ресурсов в среднем за период / Национальный статистический комитет Республики Беларусь [Электронный ресурс]. – Режим доступа: <http://dataportal.belstat.gov.by/Indicators/Preview?key=153171>. – Дата доступа: 24.03.2023.

ресурс]. – Режим доступа: <http://dataportal.belstat.gov.by/Indicators/Preview?key=153128>. – Дата доступа: 24.03.2023.

UDC 330.322

**SYSTEM FOR MANAGING THE INVESTMENT
ATTRACTIVENESS OF RUSSIAN REGIONS
СИСТЕМА УПРАВЛЕНИЯ ИНВЕСТИЦИОННОЙ
ПРИВЛЕКАТЕЛЬНОСТЬЮ РОССИЙСКИХ
РЕГИОНОВ**

Tarasova E.V.

Smolensk Institute of Economics is a branch of the private educational institution of higher education "St. Petersburg University of Management Technologies and Economics", Russian Federation

e-mail: i@tarasova-top.ru

Тарасова Е.В.

Смоленский институт экономики – филиал частного образовательного учреждения высшего образования «Санкт-Петербургский университет технологий управления и экономики», Российская Федерация

Keywords: investments, region, risks, ecosystem, state, business, production.

Ключевые слова: инвестиции, регион, риски, экосистема, государство, бизнес, производство.

Abstract. The investment attractiveness of regions is largely determined by the support and stimulation of investment activities by regional authorities that develop and implement socio-economic development programs, as well as individual targeted programs that require significant financial investments. The investment attractiveness of a region depends on a number of conditions that investors pay attention to when deciding to invest in regional projects. In developed foreign countries, the acceleration of innovative and technological development of regions occurs due to foreign direct investment. Therefore, increasing investment attractiveness is a promising direction for modernizing the regional economy, focused on attracting foreign direct investment and transfer of foreign technologies

Аннотация. Инвестиционная привлекательность регионов во многом определяется поддержкой и стимулированием инвестиционной деятельности региональными органами власти, разрабатывающими и реализующими программы социально-экономического развития, а также отдельные целевые программы, требующие существенных финансовых вложений. Инвестиционная привлекательность региона зависит от ряда условий, на которые обращают внимание инвесторы, принимающие решение об инвестировании в региональные проекты.

В развитых зарубежных странах ускорение инновационного и технологического развития регионов происходит за счет прямых иностранных инвестиций. Поэтому повышение инвестиционной привлекательности является перспективным направлением модернизации региональной экономики, ориентированным на привлечение прямых иностранных инвестиций и трансферт зарубежных технологий.

In order for the investment attractiveness of the region to increase, it must be managed. The main elements of the investment attractiveness management system: market parameters and factors of production, risks and image of the region, relationships with foreign investors.

V.G. Kandalintsev proposes to organize management within the listed elements based on the implementation of six stages within one cycle.

1. Market parameters and factors of production. When making a decision to invest, attention is paid to the size of sales markets, the degree of development of financial markets, the level of qualifications of labor resources, the level of labor costs, and the degree of infrastructure development. It is possible to manage these parameters at the regional level in the long term and often indirectly, subject to certain limitations [1, p. 86].

For example, the size of sales markets is influenced by the type of enterprise that can use intraregional demand and/or the demand of nearby and even remote regions. Intraregional demand can be increased by increasing pensions, wages and other incomes of the population. And an increase in demand in other regions can be achieved by increasing the competitiveness of manufactured products.

In the management process within this element, it is important to clearly understand the parameters of the market and factors of production, because To attract foreign direct investment it is necessary to compete with other regions and countries. It is necessary to identify specific regional competitive advantages and ways to strengthen them, which will open the way to a clear formulation of how much investment should be attracted and from what source.

2. Risks and image of the region.

Many foreign investors are sensitive to the political, economic, financial and other risks of operating in the region. The image of the region as a recipient of foreign direct investment is also very important. These parameters of the region's investment attractiveness should be managed in the medium term.

In order to manage the risks of investment activities, a register of risks and a list of response methods should be compiled in each region [2, p.327]. Next, a risk control and reduction program should be developed for 3–5 years.

The image of the region can be improved by implementing a set of activities, including informing potential investors about the region's opportunities, organizing international discussion platforms, exhibitions, etc. in the region.

3. Relations with investors.

Relations with investors are influenced to a certain extent by the openness of the economy, investment protection, the regulatory environment, investment incentives and a set of processes to promote investment projects and attract investments. The listed parameters should be managed in the medium and short term.

Regional authorities should pay special attention to promoting investment projects and attracting investments.

There are many shortcomings in Russian practice in this area. These include insufficient information content and reliability of data from business plans of investment projects, the lack of a process of preparation for the entry of a foreign partner into the business, the lack of systematicity in the search for investors, etc.

To overcome the identified shortcomings, researcher V.G. Kandalintsev proposes to create an investment ecosystem in the regions. It should represent a community of participants in the investment process with stable relationships that develop at different stages of this process.

A visual representation of the ecosystem is provided by the SIPOC (supplier-input-process-output-customer) format, showing the role of ecosystem participants at various stages of the investment process (Table 1) [3, p. 103].

As can be seen from Table 1, the investment process includes seven stages, each of which involves different participants with their own tasks.

1. At the stage of forming the investment attractiveness of the region, the decisive role is assigned to the state, government agencies and bodies. The tasks of state authorities include improving legislation and administrative procedures in the interests of the investment process, as well as direct participation in projects. In a market economy, government agencies can use direct and indirect methods as part of the implementation of the economic approach to regional development.

The use of the budget management method involves the provision of subsidies, subventions, and budget guarantees. The tax method provides for the possibility of applying a tax credit as a tax discount on attracted investments, as well as developing mechanisms for easing the tax burden through the introduction of special tax regimes for investors. The use of the monetary method provides for: loan insurance; antimonopoly – counteracting market monopolization by creating business incubators, consulting services, developing a competitive environment. The foreign economic method of increasing the investment attractiveness of a region involves creating a favorable image and investment climate that will actively attract foreign investment. Other methods include risk insurance, searching and developing prerequisites for attracting investor funds to a specific region.

The creation of special economic zones should be mentioned as an important direction in shaping the investment attractiveness of the region, which includes a combination of several methods. Their organization of such zones provides for the introduction of reduced tax rates for certain types of taxes and the

**SECTION 2. SOCIAL AND ECONOMIC PROBLEMS OF EDUCATION
AND SCIENCE DEVELOPMENT IN THE 21st CENTURY**

introduction of a special customs regime on the territory of such economic zones.

Table 1 – Investment ecosystem in the regions

Community	Contribution (process input)	Investment process	Benefits (process output)	Beneficiaries
State	Changes in legislation and participation in projects	1. Formation of investment attractiveness of the region	Conditions for strategic projects and Conditions for running medium and small businesses	Large investors Medium and small investors
Project initiators	Business ideas and concepts	2. Promotion of promising projects	Attractive and realistic project ideas	Project initiators Investors
Intermediaries	Contacts	3. Search for investors	Agreement between project initiators and investors Payment for services	Project initiators Investors Intermediaries
Investors	Financial resources Technologies and know-how	4. Providing financing and technology	Readiness for investment	Project initiators Investors
Consultants	Consulting services	5. Project development	Design documentation package Payment for services	Project initiators Investors Consultants
Project teams	Organization of project activities	6. Project implementation	Commissioning of the enterprise Payment for services	Investors and project initiators (co-owners) Project teams
Hired managers and employees of the enterprise Enterprise clients	Professional activity Payment for goods and services	7. Production activities of the enterprise	Dividends Capitalization Goods and services Salary Taxes	Investors and project initiators (co-owners) Clients Wage-earners State

The purpose of creating special zones is to attract high-tech production (research and innovation companies). Today, special economic zones represent one of the most important agents in the foreign economic activity of countries [4, p. 49]. The types of special economic zones have undergone significant transformations throughout the history of their existence. A special type are technology parks, the main purpose of which is not only the production and sale of manufactured products, but also carrying out research and development work. A characteristic feature of various types of special economic zones is a favorable investment climate, which includes customs, financial, tax benefits and advantages in comparison with the general regime for entrepreneurs existing in a particular country.

Free economic zones have also become widespread in foreign countries. Free economic zones are created in order to attract advanced technologies and foreign capital; receipt of foreign exchange assets and increase in foreign exchange reserves; saturation of the domestic consumer market; increasing the level of employment of the population; creation of modern market infrastructure; acquiring global experience in the field of economic management and international entrepreneurship; accelerating the development of depressed areas. There are various types of free economic zones, including free customs zones. The creation of such zones seems promising in certain border areas of the country [4, p. 53–54].

An important direction in increasing the competitiveness of Russian regions and creating investment attractiveness is the creation of clusters, which are associations of manufacturing enterprises, research and educational institutions, suppliers of equipment and services, as well as other entities that operate in a certain area and are geographically located in close proximity to each other. Each other, complement each other and work together in order to gain competitive advantages, create knowledge-intensive and high-tech products [4, p. 59].

Currently, clusters operating successfully in Russia operate in various industries: development of information technology, radio electronics, instrument engineering, communications and info-telecommunications in St. Petersburg; Nizhny Novgorod industrial innovation cluster in the field of automotive industry and petrochemicals; innovative territorial cluster of aircraft manufacturing and shipbuilding of the Khabarovsk Territory; pharmaceuticals, biotechnology cluster and biomedicine (Obninsk); new materials, laser and radiation technologies (Troitsk), etc.

An analysis of the existing experience in the development of clusters in Russia shows that they provide a significant impetus to regional development, including increasing the economic activity of depressed areas, and also promoting the development of small and medium-sized businesses.

Cluster zones should be considered an extremely relevant and effective type of special economic zones for the regions of our country. This type of zone has the features of both special economic zones and the cluster itself, due to which

the cluster zone receives additional benefits through government regulation and support.

2. When putting forward promising project ideas, the most promising ideas should be selected. They should take into account all risks and announce profitability, resolve issues of expanding employment, lengthening value chains and other factors that favorably influence socio-economic development.

3. At the regional level, a developed infrastructure for searching for investors should be created, including information resources and a network of trusted contacts.

4. Providing financing and technology. Here it is important to receive from investors not only financial resources, but also the technologies necessary for the implementation of the investment project.

5. Project development. Consultants involved in project development must more carefully assess project risks and also strive for greater project complexity. This will help increase the likelihood of project success.

6. During the implementation of projects, ensuring quality, compliance with project deadlines and budget. Team members must be well trained and work using modern project management standards.

7. The final stage of the investment project is the production activity of the enterprise, because creation of a permanent enterprise. The impact of investments will be enhanced if enterprise strategies include social and environmental issues.

Thus, specific ways of investing in the regional economy can only be determined during the implementation of all stages of investment attraction management, including the stage of analysis of the socio-economic situation, the most promising ideas for investment projects and the selection of potential investors.

In general, the analysis allows us to conclude that managing the investment attractiveness of regions in modern conditions is a process of assessing investment potential, creating the necessary conditions, positioning, stimulating and monitoring quantitative and qualitative indicators of territory development.

The main features of managing the investment attractiveness of regions in modern conditions include: the priority of qualitative assessments over quantitative indicators of regional development; the focus of the activities of authorities on increasing the efficiency of regional legislation on interaction between authorities and investors; ensuring the financial stability of the region; development of production potential; provision of innovative activities with labor resources; maximizing efforts to provide the region with suburban resources and create a favorable environmental environment; the need to use all possible levers and means to stimulate the innovative activity of enterprises in the region.

References

1. Kandalintsev, V. G. Managing the investment attractiveness of the region / V. G. Kandalintsev // Russia: trends and development prospects. – 2022. – No. 2. – P. 86–89.
2. Guide to the Project Management Body of Knowledge (PMBOK® Guide). 5th edition. Project Management Institute, Inc, 2023. – 680 p. [Electronic resource]. – Mode of access: http://static2.ozone.ru/multimedia/book_file/1012041519.pdf. – Date of access: 10.10.2023.
3. Akimov, A. V. Eastern countries by 2050: population, energy, food, investment climate / A. V. Akimov, M. G. Borisov, I. V. Deryugina, V. G. Kandalintsev. – M. : IVRAN, 2017. – 103 p.
4. Agayeva, L. K. Investment attractiveness of the region: textbook / L. K. Agayeva, V. Yu. Anisimova. – Samara : Samara University Publishing House, 2022. – 72 p.

UDC 658.3

**THE INFLUENCE OF ORGANIZATIONAL
CULTURE ON HR MANAGEMENT
ВЛИЯНИЕ ОРГАНИЗАЦИОННОЙ КУЛЬТУРЫ
НА УПРАВЛЕНИЕ ПЕРСОНАЛОМ**

Vankevich A.V.* , LI Yujian

Vitebsk State Technological University, Belarus

*e-mail: vankevich_ev@tut.by**

Ванкевич Е.В.* , ЛИ Юйцзянь

Витебский государственный технологический университет,

Республика Беларусь

Keywords: organizational culture, HR management, personnel policy.

Ключевые слова: организационная культура, управление персоналом, кадровая политика.

Abstract. The article is devoted to the study of the influence of organizational culture on HR processes in the organization. It has been established that effective organizational culture contributes to the growth of economic and social efficiency of HR management, the development of optimal management methods and personnel policy, the improvement of social and labor relations and the achievement of the effectiveness of the organization as a whole; organizational culture has a direct impact on individual areas of personnel policy: recruitment, selection, promotion, motivation, personnel assessment; organizational culture, effectively reflected in personnel policy, helps to reduce transaction costs.

Аннотация. Статья посвящена исследованию влияния организационной культуры на кадровые процессы в организации. Установлено, что

эффективная организационная культура способствует росту экономической и социальной эффективности управления персоналом, разработке оптимальных методов управления и кадровой политики, совершенствованию социально-трудовых отношений и достижению эффективности деятельности организации в целом; организационная культура оказывает непосредственное влияние на отдельные направления кадровой политики: подбор, отбор, продвижение по службе, мотивацию, оценку персонала; организационная культура, эффективно отраженная в кадровой политике, способствует снижению транзакционных издержек.

Organizational culture today is the most important factor that affects the potential of competitiveness and development of the company. The accepted norms, principles and approaches to the development and decision-making should clearly define the organizational behavior of each employee of the company, so they can either increase the efficiency of the company's work process, or, conversely, reduce the effectiveness of the organization as a whole.

The influence of organizational culture on HR management is considered in three main aspects.

Firstly, organizational culture is a tool for attracting highly qualified personnel to the organization. At the recruitment stage, the applicant, when deciding on the choice of an employer, assesses how the goals, traditions of the organization, its values coincide with his own life principles and attitudes. If there is a coincidence in most parameters, then the choice is positive. If, in the future, the values and norms of behavior indicated during hiring are supported by measures to maintain them, the commitment and loyalty of the organization's personnel are formed.

Secondly, organizational culture is an effective tool for shaping the attitude of the organization's personnel to high quality in work and high labor productivity. The creation of such an organizational culture that contributes to the increase of staff dedication, ensures its efficiency and competitiveness is one of the most important strategic tasks of the organization's management and personnel service.

Actions that do not correspond to the values and goals of the organization's employees will meet resistance from the staff. Actions that correspond to the values of employees will be accepted by the staff more readily.

Thirdly, organizational culture acts as a tool for the formation of employee commitment to the organization. If the organizational culture is based on respect for employees, guarantees of decent earnings, encouragement of personal achievements, systematic professional development of staff, then this approach strengthens staff loyalty, which, in turn, directly affects the reduction of staff turnover [1].

Organizational culture is an adaptive tool, therefore it is subject to constant change and development. Changing the organizational culture is an objective

requirement in a rapidly changing external and internal environment of the organization. At the same time, the result of the rapid rejection of the existing culture is the emergence of a cultural vacuum, which is characteristic of any process of cultural destruction.

Often experiments with the deliberate destruction of the existing culture in the organization (usually practiced by newly arrived leaders) lead to the fact that it passes into the sphere of informal contacts that are not controlled by the leadership. Then the negative effects of its functioning are further enhanced, acquiring the property of high unpredictability.

In this regard, the most appropriate way to transform organizational culture is its gradual, step-by-step change, which has an evolutionary character. Recently, many organizations have been changing their organizational culture by supplementing and modernizing it in accordance with changes in the external and internal environment.

In relation to the culture used in the organization, the question of its effectiveness rightly arises. An effective organizational culture contributes to the formation of conditions for the smooth functioning, development and improvement of the competitiveness of the organization in order to increase its manageability, innovation and stability in modern conditions.

An effective organizational culture contributes to the growth of the economic and social efficiency of personnel management, the development of optimal management methods and personnel policy, the improvement of social and labor relations and the achievement of the effectiveness of the organization as a whole.

Traditional indicators of economic efficiency are the financial results of the organization's activities, expressed in profit growth, increased productivity of employees, reduction of transaction costs, etc.

Organizational culture, which has been effectively reflected in the personnel policy, helps to reduce transaction costs in the following areas:

- reduction of recruitment costs due to the fact that the organizational culture serves as an additional filter and an effective criterion for the selection of candidates;
- formation of the organization's reputation while reducing marketing and advertising costs, since the labor collective itself transmits the positive image of the organization to the external environment;
- strengthening team cohesion through the formation of trusting relationships, the provision of formal and informal mutual assistance, etc.;
- reduction of transaction costs associated with interaction with counterparties and losses from leakage of confidential information of the organization [2].

Social efficiency includes the entire spectrum of staff satisfaction with work in this organization, the presence of a well-developed motivational policy, the absence of staff turnover, a favorable socio-psychological climate in the team, strengthening group cohesion, loyalty and commitment of employees to the

goals of the organization. At the macro level, the social effectiveness of the organization's work is manifested in reducing social tension in society, reducing unemployment, creating conditions for the development of human potential, the development of the social protection system, social security and insurance, as well as pension provision for employees.

The mechanisms of the influence of organizational culture on the organization's activities consist in the fact that employees predict the development of the situation and, in accordance with this forecast, evaluate and build models of their behavior. By implementing these models, the organization's staff reinforces certain trends and thus creates situations adequate to them. At the same time, the content of organizational culture for most employees is determined by the degree of personal significance of professional and labor activity.

Organizational culture has a direct impact on certain areas of personnel policy.

Thus, during the selection of personnel in the organization, special attention has recently been paid not only to the professional suitability of the candidate, his knowledge and experience, but also to the correspondence of his personal characteristics to the type of culture of the organization. The selection of employees is based on three criteria: compliance of the applicant with the nature of the organizational culture (understanding and acceptance of the mission, goals and values of the organization, attitude to colleagues, directly to work, motives for work, adoption of the management style of the organization); basic professional competencies, as well as personal qualities and abilities. The definition of the competencies necessary for this position is a universal mechanism for selecting personnel in accordance with the organizational culture and serves to strengthen it [3].

When promoting within an organization, the features of staff career growth depend on the basic parameters embedded in the organizational culture: the practice of selecting candidates for vacancies from among their own employees, "growing" their staff or recruiting from external sources; promotion criteria, the possibility of "jumping" through the steps of the career ladder, etc. The personnel strategy and policy of the organization allow you to study dynamic aspects of the employee's entry into the organizational culture, to assess the long-term prospects of his work in the organization.

The implementation of the motivational component of the personnel policy assumes that the productivity of personnel increases by increasing the personal interest of the employee in the results of his work. If an employee works inefficiently, then this indicates an assessment of his own work behavior as optimal for existing labor relations. The task of the organization's management in this case is to orient the employee's efforts to serve the goals and mission of the organization, i.e. to use appropriate methods and methods of motivation. Organizational culture contributes to the versatile disclosure of the employee's

abilities in case of his successful socialization into this culture. The parameters of the adopted organizational culture will serve as the main formative and developing factor for the personnel of this organization.

During evaluation and certification, the staff is most often evaluated according to two criteria: production efficiency and personal qualities of the employee. As personal qualities, the characteristics of an employee are considered, the set of which varies depending on the specifics of the organization's activities, specific positions and features of organizational culture. In this regard, two areas of evaluation are practiced: labor evaluation and personnel evaluation. The effectiveness of applying different approaches to evaluation varies in different types of organizational cultures. This is explained by different criteria, parameters and requirements imposed on employees, their personal qualities, competencies and performance results. Personnel evaluation systems are associated with values that are consciously or subconsciously involved in management systems. The purpose of personnel certification and evaluation is to determine the effectiveness, quality of work and increase the efficiency of using the labor potential of the organization in accordance with the requirements of its organizational culture [4].

In organizations with a well-thought-out and structured organizational culture, with any personnel evaluation systems, it is always necessary to go to the criteria of this culture. Professional and personal qualities and abilities of employees strengthen or weaken a particular type of culture.

The development of communications within the framework of intra-company communication, as a direction of personnel policy, depends on the internal motives and values of employees, therefore, communications are not only a process of information exchange, but also an exchange of behavioral models that characterize belonging to a certain organizational culture. External communications help the organization adapt to changes in the external environment, and internal communications serve as an important conductor of organizational culture through formal channels of information dissemination and through informal communication between employees. Effective communication is a prerequisite for an organization to achieve its goals. While developing its culture, the organization should integrate organic communications into it, contributing to the strengthening of its culture. The main issues that the organization needs to solve are which communications are priority: internal or external, ascending or descending, verbal or non-verbal, as well as to determine the degree of openness and accessibility of information for employees.

In modern conditions, the level of competitiveness of an organization increasingly depends on the degree of its superiority in the field of practical management, including effective personnel management. Practice shows that organizational culture is considered as an effective tool for making effective management decisions and, in particular, as a tool of personnel policy. The result

of a weak personnel policy, an ineffective staff motivation system, insufficient awareness, lack of an in-house training system and career opportunities for employees, heterogeneity of the organizational culture of the organization, as well as the consequence of attracting employees who do not conform to its culture to vacant positions, may be a violation of personnel safety standards, manifested in various forms of employee resistance to norms, values and requirements organizations. An effective organizational culture contributes to the formation of employee behavior that meets the goals of the organization, creates a favorable socio-psychological climate and social comfort. It is a powerful strategic tool that allows you to orient all structural divisions of the organization and its individual employees to common goals.

References

1. Wang, H. Corporate Culture in China: Insights from a Multinational Corporation / H. Wang // Journal of Business and Management. – 2017. – № 9(2). – P. 10–21.
2. Organizational culture: studies. and practicum / V.G. Smirnova. – M. : Yurayt Publishing House, 2023. – 306 p.
3. Zhang, Y. The Impact of Organizational Culture on Job Satisfaction and Organizational Commitment among Employees in Chinese Companies / Y. Zhang, Y. Chen // International Journal of Business and Management. – 2016. – № 11(2). – P. 151–161.
4. Zinoviev, F. V. Diagnostics of organizational culture / F. V. Zinoviev // Economics of construction and environmental management. – 2022. – № 1–2 (82–83). – P. 70–77.

UDC 339.138:004.77

TYPES OF ANALYTICS: HOW TO APPLY THEM IN A BUSINESS

ВИДЫ АНАЛИТИКИ: КАК ИХ ПРИМЕНЯТЬ В ЛЮБОМ БИЗНЕСЕ

Vardomatskaya E.U.

Vitebsk State Technological University, Belarus

e-mail: elena101.vard@gmail.com

Вардомацкая Е.Ю.

Витебский государственный технологический университет,

Республика Беларусь

Keywords: data analytics, descriptive analytics, diagnostic analytics, predictive analytics, plan/act analysis, geoanalytics, LFL-analysis, cohort analysis, analysis of illiquid, penetration, boston matrix, «What-if» modeling,

ABC-analysis, XYZ-analysis, and ABC-XYZ analysis, RFM-analysis, FMR-analysis, multivariate statistical analysis methods.

Ключевые слова: аналитик данных, описательная аналитика, диагностическая аналитика, предиктивная (прогнозная) аналитика, предписывающая аналитика, анализ план/факт, геоаналитика, LFL-анализ, когортный анализ, анализ неликвидов, пенетрация, бостонская матрица, моделирование «Что-если», ABC-анализ, XYZ-анализ, ABC-XYZ анализ, RFM-анализ, FMR-анализ, методы многомерного статистического анализа.

Abstract. The article discusses the types of analytics used in business, their benefits for business, and assesses the effectiveness of their implementation in the organization's business processes.

Аннотация. В статье рассмотрены виды аналитик, применяемых в бизнесе, их преимущества для бизнеса, и выполнена оценка эффективности их внедрения в бизнес-процессы организации.

Most successful businesses around the world, despite their field of operation, are those whose analysts constantly strive to grasp and analyze what occurred in the past, what is happening now, and what might occur in the future.

Most businesses gather data on a routine basis, but that data holds no meaning in its raw state. What matters is how the collected information is put to use.

Data analytics is the act of scrutinizing raw data to detect patterns, trends, and insights that can yield valuable information about a specific aspect of a business. Subsequently, these data-driven insights are employed to make managerial decisions [1].

It is customary to classify data analytics into four types, which differ in the complexity of working with information and the level of human involvement [2]:

1. Descriptive Analytics (What happened?)
2. Diagnostic Analytics (Why did this happen?) The primary objective is to uncover anomalies in the received data and react to them with any new data sources that may provide more information about the reasons behind the changes. This offers the analyst a clue to understand what the issue is.
3. Predictive Analytics (What will happen in the future?) is grounded in the development of predictive mathematical models, and although it can never be 100% accurate, it dispels numerous assumptions and aids in making informed business decisions and determining the best course of action.
4. Prescriptive Analytics (How to act best?) – relies on the utilization of optimization models, models for deciding on a strategy in conflicts.

Cognitive analytics is a subfield of prescriptive analytics that endeavors to mimic the human brain by drawing inferences from existing data and patterns based on existing knowledge bases, and then reintegrating the information back into the knowledge base for future inferences, essentially implementing a

learning feedback loop. When making business decisions, the following types of analytics are highly sought after.

Plan/Act Analysis. Enables you to conduct an exhaustive analysis of plan implementation: to oversee the dynamics of plan implementation, to obtain a forecast of plan implementation.

Geoanalytics. Enables the evaluation of a business's effectiveness in individual settlements, regions, or districts of the city, considering, among other factors, the presence of competitors and partners.

LFL-analysis (Like for Like). Allows for an in-depth analysis of indicators for each object of interest to the entrepreneur and the identification of both specific shortcomings leading to profit decline and general issues of the trading network.

Cohort analysis [3]. A cohort is a group/segment of users who share the same characteristics, attributes, and experience during the same time period. The concept behind cohort analysis is to divide users into groups based on similar characteristics or attributes in order to track their behavior over time.

Analysis of illiquid assets and Analysis of turnover. The direction characterizing the economic efficiency of the marketing strategy, as it permits the identification of a list of goods that are in stock but have had zero sales during the analyzed period [4].

Penetration (share of goods in the total assortment) [5]. Provides the opportunity to observe the potential opportunities of the buyer and predict likely sales growth for products.

Boston matrix [6]. The Boston Consulting Group (BCG) matrix. The primary purpose of the model is to determine priorities in the development of the company's assortment units and pinpoint key areas for future investments. As a result of combining these two indicators, positions are categorized into four roles:

- Stars (high sales growth and high market share).
- Cash cows (low sales growth, high market share).
- Problem children (high growth rates, low market share).
- Dogs (low growth, low market share).

Joint purchases. An assortment analysis method that uncovers the connections between products formed due to their mutual complementation in satisfying the needs or consistent buying behavior of customers who acquire these items simultaneously.

«What-if» Modeling. This involves analyzing the impact of altering the values of certain initial data on the outcome of formula calculations. In other words, it serves as a kind of calculator that allows for predicting, for instance, income changes depending on Price, Cost, and Number of sales.

ABC analysis, XYZ analysis, and ABC-XYZ analysis.

– ABC-analysis is a tool that permits the examination of the product range, ranking goods according to specified criteria, and identifying the portion of the

range that delivers the maximum effect - from very significant goods (group A) to the least valuable (group C).

– XYZ-analysis is a tool that classifies products based on the stability of sales and the level of consumption fluctuations – from products with low sales fluctuations (Category X) to products with high sales fluctuations (Category Z).

The combination of ABC and XYZ analyses reveals the clear leaders (AX group) and underperformers (CZ).

RFM analysis and FMR analysis.

RFM analysis allows for the segmentation of buyers based on behavioral factors such as purchase frequency and amount.

FMR analysis – permits the analysis of the product range by circulation/collection frequency, identifying three groups of goods:

– category F – the most frequently requested goods (up to 80 %);

– category M – less frequently requested goods (up to 15 %);

– category R - rarely requested goods (up to 5 %).

– KPI – Key Performance Indicator. Designed for the analysis of the enterprise's main performance indicators.

Multivariate Statistical Analysis Methods:

– Correlation and regression analysis.

– Analysis of variance.

– Discriminant Analysis.

– Factor analysis – a multivariate method used to examine the relationship between variable values. In this case, it studies the influence of the main factors on Income.

– Cluster analysis and others.

Today, data analytics is in demand in nearly every realm of human activity. The highest demand for data analytics is observed in advertising, marketing, insurance and lending, industry, finance and security, sociology, medicine, etc. The simplest tool for each of these analytical methods is typically a spreadsheet such as MS Excel, but with time, MS Excel ceases to meet business requirements and prompts consideration of process automation, the use of specialized statistical programs, artificial intelligence algorithms, deep learning and machine learning, AI and IT methods – solutions grounded in data processing and analysis technologies via cloud services. By selecting the appropriate analysis type, all types of businesses and organizations can harness their data to make better decisions, invest more wisely, enhance internal procedures, and ultimately boost their chances of success.

References

1. Что такое аналитика данных? Режим доступа: <https://www.oracle.com/ru/business-analytics/what-is-analytics.html>. – Дата доступа – 17.04.2023.

2. Какая аналитика нужна вашей компании. Режим доступа: <https://iot.ru/promyshlennost/kakaya-analitika-nuzhna-vashey-kompanii>. – Дата доступа – 17.04.2023.
3. Пенетрация в маркетинге и продажах: как измерить и увеличить. Режим доступа: <https://romi.center/ru/learning/article/market-penetration-the-true-measure-of-success>. – Дата доступа – 2.04.2023.
4. Матрица Бостонской Консалтинговой Группы: подробный обзор. Режим доступа: <http://powerbranding.ru/biznes-analiz/bcg>. – Дата доступа – 2.04.2023.
5. Яшева, Г. А., Вардомацкая, Е. Ю. Анализ и планирование ассортимента в табличном процессоре MS Excel. Журнал «Планово-экономический отдел». – № 3 (129). – 2014. – с. 47–57.
6. Яшева, Г. А., Вардомацкая, Е. Ю. Информационно-правовая система Бизнес-Инфо, БД Экономисту, раздел: Аналитические материалы. – 2014.

UDC 339.138

MARKETING ANALYTICS AND ITS TOOLS МАРКЕТИНГОВАЯ АНАЛИТИКА И ЕЁ ИНСТРУМЕНТЫ

Zaytseva E.N. , Kasayeva T.V.*

Vitebsk State Technological University, Belarus

*e-mail: eugenia.zaitceva01@gmail.com**

Зайцева Е.Н. , Касаева Т.В.*

Витебский государственный технологический университет,

Республика Беларусь

Keywords: Internet marketing, marketing analytics, market research, marketing analytics tools.

Ключевые слова: интернет-маркетинг, маркетинговая аналитика, исследование рынка, инструменты маркетинговой аналитики.

Abstract. Today, one of the most important parts of Internet marketing is marketing analytics. At the same time, in science and practice, there is no unity of points of view regarding the category of "marketing analytics" itself. It allows you to collect and study information about the current advertising campaign, determine its effectiveness and, based on this, modernize the old one or propose a new strategy. Every day there are more and more marketing analytics tools to improve the efficiency of this process, each of them has its advantages and disadvantages. This report attempts to summarize opinions on the essence of marketing analytics and provides a brief description of those of its tools that will suit most firms wishing to track their advertising campaign.

Аннотация. На сегодняшний день одной из важнейших частей интернет-маркетинга является маркетинговая аналитика. Вместе с тем в науке и практике не сформировалось единство точек зрения относительно самой категории «маркетинговая аналитика». Она позволяет собрать и изучить информацию о нынешней рекламной кампании, определить её эффективность и на основании этого модернизировать старую или же предложить новую стратегию. С каждым днем появляется все больше инструментов маркетинговой аналитики, позволяющих повысить эффективность этого процесса, каждый из них имеет свои преимущества и недостатки. В данном докладе предпринята попытка обобщения мнений относительно сущности маркетинговой аналитики и приведена краткая характеристика тех ее инструментов, которые подойдут большинству фирм, желающим отслеживать свою рекламную кампанию.

The concept of "marketing analytics" appeared relatively recently, however, currently almost no company can do without it. Marketing analytics is interpreted differently in different sources.

Table – Analysis of marketing analytics definitions

Definition	Keyword
Marketing analytics is a process that helps to analyze the actions of the marketing department and find patterns in the data for decision – making.	the process of analyzing actions
In a nutshell , marketing analytics can be described as follows: - tracks which channels brought sales and their volume - shows how to allocate budget and resources more efficiently - shows how working channels can be improved - allows you to think through and adjust the promotion strategy.	tracking and adjustment tool
Marketing analytics is a science based on mathematics, looking for patterns in marketing data in order to transform them into actions and improve marketing results. This is the art of drawing conclusions from statistics, forecasting and machine learning.	the science
Marketing analytics is the process of measuring the effect of running activities and developing a plan to strengthen them.	the process of measuring the effect
Marketing analytics is the practice of using data to evaluate the effectiveness and success of marketing activities.	the practice of evaluating effectiveness
Marketing analytics is the study of data to evaluate the effectiveness of marketing activities.	data research
Marketing analytics is a mechanism for tracking the effect of starting activities and optimizing them.	effect tracking mechanism
Marketing analytics is the analysis of a marketing campaign in order to increase its effectiveness.	analysis

Compiled by the author according to [1–10].

Based on the data in the table, we can conclude that there is no exact definition of marketing analytics, in some sources it is treated as a science, in others as a tool, in others as a process, etc.

The study of a number of definitions and their generalization allows us to offer the following author's opinion on the essence of marketing analytics:

Marketing analytics is the process of searching, as well as processing data about a product, company, market in order to evaluate the effectiveness of marketing activities and find ways to optimize it.

To facilitate the collection and systematization of this information, there are a huge number of marketing analytics tools. With their help, the company can determine which channels bring more customers and, accordingly, profits, and which do not justify the investments invested in them. The choice of tools depends on many factors, such as: the size of the advertising budget of the organization, the location of advertising, the target audience, etc.

Let's look at the main ones using the example of a beauty salon that has its own website and social media accounts:

1. Google analytics. A basic, and most importantly, a free website analysis tool that helps to find out the number of site visits, where the transitions to the site were from, the time spent on the site, etc. For a more detailed analysis, Google suggests combining Google Analytics with its other tools, such as Google AdWords and Google Data Studio [11–15]. This tool will allow the salon to find out how often their site is visited, from where they find out about it, which tabs are visited most often.

2. Yandex. Metrica. Also a free tool popular with Russian marketers. With it, you can see a wide range of data about the actions of visitors, and with the help of the built-in webvisor, it is possible to track all the actions of visitors on the site and determine what the visitor uses most often, and what causes him difficulties [13, 14]. The capabilities of this tool are almost the same as those of Google Analytics, however, the built-in webvisor will show marketers in which part of each tab the visitor's attention was concentrated.

3. Improvado. The marketing analytics platform, which simplifies the collection of data from a large number of sources, analyzes the collected data, and the field visualizes them for further processing [15, 16]. The platform will allow the salon to collect data on the site and on social networks. networks and each report will be presented as a separate graph or diagram.

4. Semrush. A marketing analytics tool that helps to track not only their actions, but also the actions of competitors, which will allow them to anticipate their further actions [11, 12, 16]. Thanks to this tool, marketers will be able to track which beauty salons are nearby, which marketing tools they use and which tactics they adhere to in their marketing campaign.

5. Fivetran. A platform that allows not only to collect data, but also to combine everything in one place, which greatly simplifies further analysis [15, 16]. With

the help of this platform, the marketing department will be able to analyze all its general activities on the Internet.

6. MixPanel. A tool that allows you to track in real time the actions of customers on the website and in the mobile application, as well as collect information about individual users [11, 12, 15, 17]. This tool will show how many people are currently viewing the salon's website/account, as well as provide brief information about these users.

In place of the salon, there could be any business conducting any activity on the Internet.

To get more accurate information, it is best for companies to use not one, but two or three marketing analytics tools. Despite the fact that all the tools greatly simplify the work of marketers, there are problems associated with their use. The main ones are the cost (since most of the tools are either paid or free only within certain limits), long data collection and the complexity of tracking data in real time.

References

1. Marketing analytics: data analysis in marketing – [Electronic resource]. – Mode of access: <https://www.passteam.ru/blog/marketingovaya-analitika-analiz-dannyh-v-marketinge-razbiraem-klyuchevye-metriki-i-strategii>. – Date of access: 11.10.2023.
2. Why marketing analytics is needed – [Electronic resource]. – Mode of access: <https://productstar.ru/marketing-analytics>. – Date of access: 12.10.2023.
3. Analytics in marketing: why it is needed and how to build – [Electronic resource]. – Mode of access: <https://blog.ringostat.com/ru/analitika-v-marketinge-zachem-ona-nuzhna-i-kak-posroit/?amp=1>. – Date of access: 12.10.2023.
4. Such different analytics – [Electronic resource]. – Mode of access: <https://garpix.com/blog/takaya-raznaya-analitika>. – Date of access: 12.10.2023.
5. Marketing analytics and research – [Electronic resource]. – Mode of access: <https://mailfit.com/blog/marketingovaya-analitika-i-issledovaniya>. – Date of access: 12.10.2023.
6. What is Marketing Analytics? Tips, Tools, & Why It Matters – [Electronic resource]. – Mode of access: <https://www.marketingevolution.com/marketing-essentials/marketing-analytics>. – Date of access: 11.10.2023.
7. Marketing Analytics – [Electronic resource]. – Mode of access: https://www.sas.com/en_us/insights/marketing/marketing-analytics.html. – Date of access: 11.10.2023.
8. How marketing analytics saves business money – [Electronic resource]. – Mode of access: <https://roistat.com/rublog/marketingovaya-analitika/>. – Date of access: 11.10.2023.

9. Analyze marketing – [Electronic resource]. – Mode of access: <https://sendpulse.com/fr/support/glossary/marketing-analysis>. – Date of access: 11.10.2023.
10. Marketing analytics – [Electronic resource]. – Mode of access: <https://www.plerdy.com/ru/blog/marketingovaya-analitika/>. – Date of access: 11.10.2023.
11. 12 Best Marketing Analytics Tools for You – [Electronic resource]. – Mode of access: <https://hevodata.com/learn/best-marketing-analytics-tools/>. – Date of access: 12.10.2023.
12. 7 marketing analytics tools – [Electronic resource]. – Mode of access: <https://asu-analitika.ru/7-instrumentov-marketingovoj-analitiki>. – Date of access: 12.10.2023.
13. 20 best web analytics tools for a marketer – [Electronic resource]. – Mode of access: <https://timeweb.com/ru/community/articles/luchshie-instrumenty-veb-analitiki-dlya-marketologa>. – Date of access: 12.10.2023.
14. 10 tools for advertising analysis – [Electronic resource]. – Mode of access: <https://imba.ru/blog-1/10-instrumentov-dlia-analiza-reklamy-251>. – Date of access: 12.10.2023.
15. Top 20 tools for data analysis – [Electronic resource]. – Mode of access: <https://productstar.ru/tpost/5gzupogvu1-top-20-instrumentov-dlya-analiza-dannih>. – Date of access: 12.10.2023.
16. Top 17 Marketing Analytics Tools and Software for 2023 – [Electronic resource]. – Mode of access: <https://improvado.io/blog/marketing-analytics-tools>. – Date of access: 12.10.2023.
17. The best web analytics tools for a marketer – [Electronic resource]. – Mode of access: <https://timeweb.com/ru/community/articles/luchshie-instrumenty-veb-analitiki-dlya-marketologa>. – Date of access: 12.10.2023.

UDC 339.37

FEATURES OF THE MARKETING MIX IN RETAIL

ОСОБЕННОСТИ КОМПЛЕКСА МАРКЕТИНГА В РОЗНИЧНОЙ ТОРГОВЛЕ

Zhuchkevich O.

Vitebsk State Technological University, Belarus

Жучкевич О.Н.

*Витебский государственный технологический университет,
Республика Беларусь*

Keywords: marketing mix, retail, sales, product, price, promotion, customers.

Ключевые слова: комплекс маркетинга, розничная торговля, продажа, продукт, цена, продвижение, покупатели.

Abstract. The approaches to the concept of "marketing mix" and its importance for business are defined. The main retail trends in Belarus and the global market are considered. The composition, essence and specificity of the use of marketing tools in retail are revealed.

Аннотация. Определены подходы к понятию «комплекс маркетинга» и его значение для бизнеса. Рассмотрены основные тенденции розничной торговли в Беларуси и на мировом рынке. Раскрыты состав, сущность и специфика использования инструментов маркетинга в торговле.

The marketing mix is a key concept in both marketing theory and practical marketing activities. There are several approaches to determining its essence:

- the marketing mix is a set of marketing tools to achieve marketing goals;
- the marketing mix is a marketing concept that the company uses to justify the directions of interaction with the consumer;
- the marketing mix is the variables that must be controlled by marketing;
- the marketing mix is the concept of promoting a company and products using various marketing models.

In practical activities the use of elements of the marketing mix allows one to influence demand, manage the sales process and ensure the achievement of the organization's goals in the sales of goods and services. On the one hand, this helps to increase the efficiency of the organization, and on the other hand, it helps to satisfy the needs of customers.

Traditionally, the marketing mix consists of four elements: product, price, place and promotion. However, depending on the scope of use, category of customers, tasks and goals, the marketing complex requires transformations. They are quite significant in the retail. This is due to the place that retail occupies today in the distribution system of goods. In 2022, the global retail market generated sales of over 27 trillion U.S. dollars, with a forecast to reach over 30 trillion US dollars in 2024 [1].

In Belarus, as of October 1, 2023 the number of stores of various formats reached 128 thousand. At the same time, the retail trade area increased by 1%, exceeding 7 million 270 thousand square meters. Thus, the provision of the population with retail space in the country reached a level of almost 860 square meters, and in Minsk it exceeded the figure of 1,000 square meters per 1,000 residents [2].

The specifics of marketing in retail are also related to the fact that modern retail is omnichannel, when along with traditional forms and methods of sales, new formats, new communications and technologies are becoming widespread. Omnichannel in retail is continuous communication with the client through the integration of disparate offline and online points of contact with the buyer into a single system for making a purchase.

In addition, a significant factor in retail is the high level of competition. So, the 17 largest chains in Belarus account for 52 % of the country's retail turnover

of food products, while in many European countries 3–5 chains account for 70–95 % of the retail food market [3].

Therefore, a well-designed marketing mix is a must in today's highly competitive retail industry. The following should be considered as elements of the marketing mix in retail: product; price; promotion; place; process; personnel; physical evidence.

The product as a fundamental element of the marketing mix has significant differences in retail. More important is not the product itself, but the services for its presentation, since it is the service that should make the purchase of the product as easy and pleasant as possible.

Price as an element of the marketing mix involves not only the choice of pricing method and justification of the price level in the store, but also the optimization of non-price costs of consumers – travel time, waiting in line, emotional costs, etc. At the same time, such a concept as mutually beneficial long-term relationships, which often directly depend on the pricing system, do not matter in retail.

The components of promotion in trade marketing traditionally include advertising activities, sales promotion, public relations, and personal sales. However, the goals of ensuring promotion are somewhat different compared to industrial enterprises. As a rule, this is the implementation of unplanned and impulsive purchases, increasing the frequency of purchases, increasing the volume of a one-time purchase, ensuring its complexity, and others.

The most important location (place) factors for retail are: attractiveness of the region, market saturation radius of the trade area, intensity of human and transport flows, transport infrastructure, presence of competitors, layout of the sales area, size of the sales area. Merchandising plays a significant role in this, allowing retail sales to be stimulated by attracting the attention of customers to certain brands or product groups at points of sale without the active participation of sales personnel.

The purpose of such an element of the marketing mix as a process is to form such conditions for selling goods that are comfortable for the customers and effective for the organization. This is facilitated by the sales procedure, including the introduction of modern services, the development of standards and rules for the provision of services, the level of personnel qualifications, as well as the efficiency of the placement and display of goods.

Physical evidence emphasizes the special importance of the surrounding environment in the process of providing services, namely: type of the retail equipment, music, storage rooms, children's rooms and so on.

In modern business, the human factor is still relevant when selling goods. We are talking about those specialists who interact with customers when selling goods and services. This is most clearly manifested in retail, so people are considered as a marketing mix tool. In this case, the employee's qualifications, appearance, knowledge of consumer psychology and behavior are important.

Thus, the marketing mix is a comprehensive tool that helps companies analyze and adjust their strategies to achieve maximum efficiency in the market. Inclusion of additional components along with the traditional 4P model allows for improved interaction with customers at all stages of purchase, which ultimately leads to increased commercial performance, increases the level of competitiveness of the organization, and ensures faster adaptation to changes in the market.

References

1. Retail market worldwide [Electronic resource]. – Режим доступа: <https://www.statista.com/topics/5922/retail-market-worldwide/#topic-Overview>. – Дата доступа: 20.10.2023.
2. Belretail.by [Electronic resource]. – Режим доступа: <https://belretail.by/article/glava-mart-rasskazal-ob-osnovnyih-dostizheniyah-beloruskoj-roznitsyi>. – Дата доступа: 23.10.2023.
3. Продовольственная розница в Республике Беларусь [Электронный ресурс]. – Режим доступа: https://bikratings.by/wp-content/uploads/2020/12/prodovolstvennaya-roznicza-v-rb_.pdf. – Дата доступа: 25.10.2023.

SECTION 3. LANGUAGE EDUCATION FOR SPECIFIC PROFESSIONAL SKILLS

UDC 378+796

SPORT TOURISM INFLUENCE ON FOREIGN LANGUAGE LEARNING

ВЛИЯНИЕ СПОРТИВНОГО ТУРИЗМА НА ИЗУЧЕНИЕ ИНОСТРАННЫХ ЯЗЫКОВ

Andrenko K.V.¹, Demchyk T.S.¹, Kozlova N.I.^{2}*

*¹A.S. Pushkin Brest State University, ²Brest State Technical University, Belarus
e-mail: nikoziolova46@gmail.com**

Андренко К.В.¹, Демчук Т.С.¹, Козлова Н.И.^{2}*

¹Брестский государственный университет имени А.С. Пушкина,

²Брестский государственный технический университет,

Республика Беларусь

Keywords: sports tourism, sport activities, sports, intercultural communication, active recreation, foreign language.

Ключевые слова: спортивный туризм, виды спорта, межкультурная коммуникация, активный отдых, иностранный язык.

Abstract. Today, sports tourism is an integral part of life for most of the world's population, having a positive impact on the individual and society. This article examines the impact of sports tourism on learning foreign languages. The hobby of sports tourism, provides a unique opportunity to combine learning foreign languages and active participation in sports activities. The paper discusses the different types of sports tourism that stimulate linguistic interaction between participants from different cultures. The main benefits of tourism promote immersion in the language environment, informal communication with native speakers, learning sport-specific terminology, and opportunities for intercultural exchange.

Аннотация. Сегодня спортивный туризм является неотъемлемой частью жизни большей части населения планеты, оказывая положительное влияние на человека и общество. В данной статье рассматривается влияние спортивного туризма на изучение иностранных языков. Увлечение спортивным туризмом предоставляет уникальную возможность сочетания изучения иностранных языков и активного участия в спортивных мероприятиях. В работе обсуждаются различные типы спортивного туризма, которые стимулируют лингвистическое взаимодействие между участниками из разных культур. Основные преимущества туризма способствуют погружению в языковую среду, неформальному общению с носителями языка, обучению

специфической терминологии в сфере спорта, а также возможности межкультурного обмена.

Throughout its development, humankind has been interested in sport. The types of sports and forms of sports competitions have changed over time. Running was one of the earliest sports, which appeared in antiquity. Different countries had their own most popular sports, which reflected the peculiarities of national cultures. For example, in ancient Greece such sports as wrestling, discus and javelin throwing, and chariot racing were popular. In the Middle Ages in Europe, knights' tournaments became popular, which were not only a sporting competition, but also a demonstration of military power. With the development of science and technology, new sports such as football, basketball and tennis began to appear and became popular all over the world.

The informatisation of society and globalisation has led to the intensification of intercultural communication on a whole new scale. The availability of information about sport has generated even more interest in this subject, which has led to the development of sports tourism.

Sports tourism is currently divided into three areas: active sports tourism, which refers to people travelling to participate in sporting events; event sports tourism, which refers to travelling to watch a sporting event; and nostalgic sports tourism, which includes visits to sports museums, famous sports venues and sports themed cruises.

Sports tourism may include activities such as attending major sporting events, participating in adventure sports (extreme river rafting, speleo and skiing trips, mountaineering, hang gliding), and visiting sports-themed attractions and museums.

Sport tourism began to develop in Europe in the middle of the XIX century. At this time the first mountaineering clubs began to appear [1]. In Russia, the history of sports tourism begins in the late 17th century, when Peter the Great after his journey through Europe introduced the term "tourism". He tried to attract people to active travelling and hiking [2].

According to the British company Technavio, by 2021, the global sports tourism market was at the level of 4.31 trillion dollars, which indicates its significant growth. Every year 12 to 15 million people are involved in sports tourism [3].

Today, sports tourism is an integral part of life for the majority of the population in many countries, having a positive impact on the individual and society. Sports tourism in Belarus is actively developing and offers many opportunities for lovers of active recreation. Various sporting events such as walking marathons, international water marathons and cycling technique competitions are organised in our country [4]. In 2022, the Republic of Belarus saw an increase in the popularity of domestic tourism.

The natural conditions of Belarus allow to organise sport tourism routes of I and II categories of complexity only, which limits the possibility of offering routes for sophisticated travellers, but makes hiking in the country accessible to all tourists, including poorly trained beginners and children's and youth groups.

There are many sporting facilities in our country that attract tourists. However, despite all these opportunities, sports tourism in Belarus is still under development and has great potential for growth in the foreign language aspect.

Travelling to sporting events can be a great incentive to learn a foreign language, as it provides an opportunity to immerse oneself in the language environment and practice speaking skills [5]. In addition, participation in sporting events can increase motivation to learn a language as it helps to realise that language is not only a tool for communication but also a means to achieve goals. Finally, travelling to sporting events can be a source of new knowledge about the culture and traditions of the visited country, which can also stimulate interest in learning a foreign language.

The main advantages in terms of which sports tourism can significantly contribute to intercultural exchange and language learning are:

1. Intercultural interaction. Sporting events such as the Olympic Games or World Cup attract people from all over the world, which creates unique opportunities for intercultural exchange and language learning.

2. Common interest. Sport is a common interest that can bring people from different cultures together. This can encourage language learning to better communicate with other fans.

3. Language practice. Attending sporting events abroad provides an opportunity to practice a foreign language in a real-life situation.

4. Cultural Understanding. Through sports, you can learn a lot about the culture of a country. This can stimulate interest in learning that country's language.

5. International friendships. Sports tourism can help to make new friends from all over the world, which will also stimulate language learning to maintain these relationships.

6. Professional development. For those working in sports or tourism, knowledge of foreign languages can be an important professional advantage.

7. Cultural Respect. Learning a language can be an expression of respect for a country and its culture.

8. Enhancing the travelling experience. Knowing the language can make travelling more enjoyable and safer.

9. Development of tolerance. Knowledge of a foreign language helps to develop tolerance and openness to other cultures.

It should be noted that sports tourism can have not only health-improving, but also cognitive and educational orientation and their combination, and also carries out a variety of sports, recreational, environmental and spiritual and moral functions.

The analysis of literature on the research problem allowed us to identify the main aspects of learning a foreign language through sports tourism:

1. Visiting sports events and activities, competitions in various sports can be used as teaching material for learning foreign languages. For example, it is possible to discuss the results of competitions, the most vivid game moments with the use of foreign language.

2. Watching sports broadcasts in a foreign language and discussing them helps to improve the understanding of the language and helps to learn how to use it in real life.

4. learning sports vocabulary and terminology in a foreign language can be useful to expand vocabulary and improve language comprehension.

5. Learning the history of different sports in a foreign language can also be interesting and informative.

Thus, sports tourism serves as an inherent mechanism for advancing the acquisition of foreign languages by experiencing the realities of different countries' histories, cultural traditions, and unique customs in a tangible way. Moreover, it can be regarded as a profoundly impactful and influential method for fostering both physical and spiritual growth within an individual's character. By immersing oneself in the authentic experiences that sports tourism offers individuals are not only able to amplify their linguistic proficiency but also cultivate a profound appreciation for the intricate different cultures.

References

1. Спортивный туризм: история развития и популярности спортивных походов, восхождений на горы и других видов туризма [Электронный ресурс]. – Режим доступа: <https://zonasporta.com/articles/istoriya-sporta/>. – Дата доступа: 27.09.2023.
2. Симчина, Т. В. Возникновение и развитие спортивного туризма в России / Т. В. Симчина // Молодой ученый. – 2023. – № 9 (456). – С. 365–369.
3. Теория и методика спортивного туризма: учебник / В. А. Таймазова, Ю. Н. Федотова. – М. : Советский спорт, 2014 . – 424 с.
4. Сайт общественного объединения «Республиканский туристско-спортивный союз» (ОО РТСС) [Электронный ресурс]. – Режим доступа: <http://rtss.by/>. – Дата доступа: 22.09.2023.
5. Козлова, Н. И. Лингвистический туризм в Республике Беларусь / К. В. Андренко, Н. И. Козлова // Менталитет славян и интеграционные процессы: история, современность, перспективы : материалы XIII Междунар. науч. конф., Гомель, 18–19 мая 2023 г. – Гомель: ГГТУ имени П.О. Сухого, 2023. – С. 27–29.
6. Готовы отдыхать. Как изменились предпочтения туристов в 2023 году? [Электронный ресурс]. – Режим доступа: <https://www.finam.ru/publications/item/gotovy-otdykhat-kak-izmenilis->

predpochteniya-turistov-v-2023-godu-20230216-1850/. – Дата доступа: 22.09.2023.

UDC 372. 881.111.1

**THE IMPLEMENTING PROBLEM OF
COGNITIVE LINGUISTICS IN A FOREIGN
LANGUAGE GRAMMAR TEACHING
ПРОБЛЕМА ВНЕДРЕНИЯ КОГНИТИВНОЙ
ЛИНГВИСТИКИ В ПРЕПОДАВАНИЕ
ГРАММАТИКИ ИНОСТРАННОГО ЯЗЫКА**

Baeva I.V. , Kudryashova A.A.***

Pskov State University, Russian Federation

e-mail: ba_evairina@mail.ru ,nyuta.kudryashova@mail.ru***

Баева И.В. , Кудряшова А.А.***

Псковский государственный университет, Российская Федерация

Keywords: cognitive linguistics, methods of teaching foreign languages, the problem of integration.

Ключевые слова: когнитивная лингвистика, методика обучения иностранным языкам, проблема интеграции.

Abstract. In the article, we raise the problem of integrating cognitive linguistics and the theory and methodology of teaching a foreign language, in particular in teaching foreign grammar. The provisions of cognitive grammar can be applied to the selection and systematization of grammatical material, explanation of the grammatical structure of the language to the learner, explication of the meaning and features of the use of certain grammatical units.

Аннотация. В статье мы поднимаем проблему интеграции когнитивной лингвистики и теории и методики преподавания иностранного языка, в частности при преподавании иностранной грамматики. Положения когнитивной грамматики могут быть применены к отбору и систематизации грамматического материала, объяснению грамматической структуры языка учащемуся, разъяснению значения и особенностей употребления определенных грамматических единиц.

Introduction. Every year the study of foreign languages in Russia is becoming more and more popular due to the active integration of our country into global processes. This leads to a constant search for effective approaches to teaching foreign languages, including among the scientific theories and concepts of modern linguistics.

Cognitive linguistics as a scientific field originated in the early 1980s. as an alternative to generative linguistics, in which language was proposed to be

considered as an independent category of human thinking that exists outside of connection with the outside world and other processes of thinking and cognition [3, p. 8]. Russian scientist Rakhmankulova Svetlana Evgenievna identifies the basic principles of the implementation of approaches to teaching grammar based on the data of cognitive theory of language: the presentation of grammar as a result of conceptualization of the world by a native speaker, as a system of "schemes" of interpretation of reality; the presentation of grammatical units as units with a certain meaning (function); structuring of educational grammatical material according to the functional principle; use to explain values (functions) of grammatical units of a simple metalanguage based on the native language of the trainees; reliance on understanding the prototypical meaning of a unit and cognitive mechanisms for expanding its meaning (the mechanism of conceptual metaphor); consideration of grammar as a non-autonomous system and grammatical forms as a means of forming the meaning of an utterance in conjunction with units of other levels of language; explanation of the choice of grammatical units in the utterance by the way of interpreting a fragment of the world and the corresponding communicative intentions of the speaker [2, p. 87].

The author draws attention to the trend of development of the communicative method in teaching a foreign language. The primary importance in this method is given to speech activity within the framework of situations as close as possible to real communication, during which the mastery of speech patterns and grammatical structures takes place. The comparison of inductive and deductive methods of grammar teaching in secondary and high schools is important in the article. On the one hand, methodologists and linguists have repeatedly noted the shortcomings of the communicative approach, in particular the neglect of the grammar of a foreign language, the assignment of an official role to it in language teaching and, as a result, the strong interference of the native language and, in general, the low level of grammar proficiency among students. On the other hand, the linguomethodic literature criticizes the traditional approach to grammar, which pays great attention to the grammatical system and its elements but often uses terminologically rich and too detailed explanations of grammatical units of a foreign language that are incomprehensible to students and do not contribute to progress in the formation of grammatical skills and their application in speech. The author proposes to solve this problem using the principles of cognitive linguistics.

The main part. The author has studied in sufficient detail the approach to teaching foreign language grammar within the framework of cognitive linguistics. It is based on the same fundamental principles as the "conscious" approach, and the ultimate goal of learning is seen, as in the communicative approach, in solving specific tasks of intercultural communication. However, this approach offers new opportunities for explaining to students the structure of a foreign (and their native) language and new effective ways of working with

language material. The author suggests looking at grammar teaching from the other side. Svetlana Evgenievna refers to the opinion of the American linguist R. Lancker who says: "grammatical structures are "inherently symbolic" and as a kind of conditional signs serve as a means of structuring and representing conceptual content – the idea of a fragment of the world (scene, situation) [2, p. 90].

The use of a particular grammatical structure is determined not only by the content of the fragment of the world reflected by the utterance but also by the way of interpretation of this fragment, which the speaker chooses in accordance with his communicative goal". Attention is drawn to a different view of teaching foreign grammar. Interlanguage differences are considered in cognitive grammar not as formal discrepancies between two language systems but as differences in the conceptualization of the world by native speakers of these languages. The emphasis relies on the prototypical meaning of the language form, or the basic meaning of the unit (core meaning), reflecting a set of features most essential for experience, a starting point in the categorization of reality, and allowing students to understand the system of derivatives of the unit value, correctly recognize and use this unit in diverse contexts. The positive aspects of the work include the study of the works of not only foreign linguists but also domestic ones. Special attention is paid to introducing new foreign language material, not to compare the linguistic units of the native and foreign languages, but to explain the generalized meanings (conceptual representations) that stand behind these language forms, defining their "cognitive internal form", and determine the choice of appropriate units in the process of communication, their compatibility with other units.

Teaching syntax within the framework of this model is seen not in the communication of information to the learners about the syntactic structure of the language being studied, its differences from the structure of the native language but in the assimilation by students of propositional models of a foreign language implemented in the speech of native speakers of the language being studied, fixed in syntactic models of a simple sentence and acting as cognitive schemes for describing fragments of reality [2, p. 95].

However, the updated requirements of professional competencies for the development of the disciplines "Practical course of the main foreign language" and "Teaching methods basic foreign language" implies that students have the ability to teach an academic subject, including motivation of educational and cognitive activity, based on the use of modern subject-methodical approaches and educational technologies [1, p. 395].

Conclusion. The conclusion from the above-mentioned works of linguists deserves special attention, which is based on the following interrelated principles: grammar is considered (and presented to students) as a way of structuring reality by a native speaker, a set of universal and ethnospecific

schemes for its interpretation and for expressing the corresponding meaning in communication, and not as a system of grammatical forms and rules for their use; grammatical units for study are selected and systematized in accordance with the functions they perform – those meanings and communicative intentions that the speaker can express using these units; the meaning (function) of a grammatical unit can be described by a simple non-terminological metalanguage based on intuitive units of the native language of the learners, and is presented visually in the form of a diagram, pictures; the variety of concrete fragments of the world, including fragments of new experience, is represented by a limited set of conceptual structures and a small number of grammatical units; knowledge of the prototypical meaning of a grammatical unit (reflecting the physical experience of a native speaker) and models of expansion of its meaning (arising as a result of the mechanisms of metaphor, metonymy) allows you to identify the specific meaning of the unit from the contexts of its use; grammar teaching does not involve mechanical memorization of lists of units and their functions, but mastering the operational principles of the language being studied – ways of constructing an integral utterance; the choice of the structure of the represented fragment of the world depends on the perception of this fragment by the speaker and the purpose of his utterance.

References

1. Баева, И. В. Развитие иноязычной коммуникативной компетенции студентов педагогического направления в условиях цифровизации образовательной среды // Педагогический журнал. – 2022. – Т. 12. – № 6 А. – Ч. I. – С. 394–399. DOI: 10.34670/AR.2022.18.43.053.
2. Рахманкулова, С. Е. Современная когнитивная лингвистика в преподавании грамматики иностранного языка // ВЕСТНИК НГЛУ. – Выпуск 1 (49). Язык и культура. – С. 86–103. DOI: 10.47388/2072-3490/lunn2020-49-1-86-103.
3. Holme, R. *Cognitive Linguistics and Language Teaching*. New York: Palgrave Macmillan, 2009. – 251 p.
4. Littlemore, J. *Applying Cognitive Linguistics to Second Language Learning and Teaching*. New York: Palgrave Macmillan, 2009. – 212 p.

UDC 372.881.111.22

**INDIVIDUALIZATION AS A PRINCIPLE OF
TEACHING GERMAN AS A SECOND FOREIGN
LANGUAGE IN A HETEROGENEOUS
UNIVERSITY STUDENT GROUP**

**РЕАЛИЗАЦИЯ ПРИНЦИПА
ИНДИВИДУАЛИЗАЦИИ В ОБУЧЕНИИ
НЕМЕЦКОМУ ЯЗЫКУ КАК ВТОРОМУ
ИНОСТРАННОМУ В РАЗНОУРОВНЕВОЙ
СТУДЕНЧЕСКОЙ ГРУППЕ В ВУЗЕ**

*Belokurova E. *, Gadzhieva T. ***

Pskov State University, Russian Federation

*e-mail: ewgenikapskov@mail.ru *, tamila.mika@gmail.com ***

*Белокурова Е.Ю. *, Гаджиева Т.Ш. ***

Псковский государственный университет, Российская Федерация

Keywords: individualization, subjective individualization, personality-oriented individualization, individual approach, technology of multi-level instruction.

Ключевые слова: индивидуализация, субъективная индивидуализация, личностно-ориентированная индивидуализация, индивидуальный подход, технология многоуровневого обучения.

Abstract. The study addresses the problem that is often encountered by university teachers: how to organize foreign language teaching in a heterogeneous group of students. Heterogeneity concerns different aspects, the foremost of which is different levels of foreign language competences. To achieve demanded educational results one should implement adequate teaching tools oriented not only to the level of the language competence, but to the interests, experience, and goals of the students, which implies an individual approach in teaching. Relevance of this study is determined by the necessity to actualize individualization as a didactic principle under the condition of a group format of teaching, which finds its way in instructing separate students on the basis of their own track taking into consideration their personal characteristics and fostering them in modeling their own trajectory in the second foreign language learning. The study object is teaching German as a second foreign language in a heterogeneous university student group. The study subject is ways and techniques of individualization in teaching German as a second foreign language in a heterogeneous university student group.

Аннотация. В исследовании рассматривается проблема, с которой часто сталкиваются преподаватели вузов: как организовать обучение иностранному языку в гетерогенной группе студентов. Гетерогенность касается разных аспектов, главным из которых является разный уровень

владения иностранным языком. Для достижения требуемых образовательных результатов необходимо реализовать адекватные средства обучения, ориентированные не только на уровень языковой компетенции, но и на интересы, опыт и цели обучающихся, что предполагает индивидуальный подход в обучении. Актуальность исследования определяется необходимостью реализации индивидуализации как дидактического принципа в условиях группового формата обучения, который находит свое отражение в обучении отдельных учащихся на основе собственного направления с учетом их личностных особенностей и их воспитания, в моделировании собственной траектории изучения второго иностранного языка. Объект исследования – преподавание немецкого языка как второго иностранного в гетерогенной студенческой группе университета. Предметом исследования являются пути и приемы индивидуализации обучения немецкому языку как второму иностранному в гетерогенной студенческой группе вуза.

The concept of individualization in teaching

One of the most important aspects of individualization is taking into account individual styles of cognitive activity. There is no doubt that all students are capable of learning and mastering knowledge, skills, abilities, and developing their abilities. In this case, we want to refer to the statement of Betty Lou Leaver, an American psychologist and children's writer, who in her book "Teaching the Whole Class", which highlights the problem of individualization of learning, expressed a very important thought: "... all students, without any exception, can learn. The only thing they may not be able to do is to learn as prescribed by a particular program, textbook, or teacher"[3].

It seems interesting to us that the implementation of individualization should be accompanied by systematization on the part of the teacher, in other words, to have a conscious organized learning process, which includes content, methods, forms and means, focused on the assimilation of the teacher, and then the students, ways and techniques of individualization implementation in a foreign language class.

Principle of individualization in foreign language teaching

Today, the principle of individualization in foreign language teaching is given a lot of attention, including in relation to the teaching of a second foreign language. Undoubtedly, the individualized approach in aspects of foreign language teaching methodology, including the second language, is the main one.

At the same time, we should not forget about differentiation, which helps in case of difficulties in the formation of study groups in the class to fulfill the set tasks. Often differentiation in German language teaching is also based only on individual problems in knowledge and not on individual characteristics of students.

It is known that students in the same group learn the material in different ways. Some students can memorize vocabulary easily and without serious efforts, others have well-developed listening comprehension, so these students successfully perform listening tasks. It seems important to us that the application of individualized learning, especially in mastering foreign language communicative competence, students have the final result, which is the same for all students, even if students at the beginning of training had different personalized goals. Achievement of personalized goals goes through the assimilation of various methodological and didactic materials, playing situations close to real life, where students perform speech activity according to the support, scheme or without additional means.

The concept of multilevel group in the context of learning German as a second foreign language

It is known that the educational context of foreign language teaching is characterized by such didactic feature as teaching in a group with different levels of foreign language proficiency.

M.Y. Bukharkina in her article "Technologies of multilevel learning" explores the concept of multilevel learning. The author emphasizes that multilevel teaching is a methodical organization of the learning process, which implies a completely different level of mastering of the studied material [11].

According to T.A. Rodionova, one of the probable ways out of this situation is the organization of personality-oriented learning, which, in relation to the process of teaching a foreign language to university students, is understood as such a system of learning, which takes into account the individual-psychological characteristics of each student and provides each student with a real opportunity to act as a subject of learning. For example, in reading, students work with different paragraphs of the same text or with different micro-texts in alternating pairs in which they find the main idea and key words of the paragraph or micro-text together, select a possible title, and then use the key words to convey the content of the paragraphs.

According to E.V. Klassen, the teacher has to balance between the requirements of the program and the real level of the student, so some "relaxations" for poorly prepared students should be compensated by the intensity of their learning [8]. For example, for such students it is possible to increase the units of learning content, setting the task of mastering "from scratch" a large amount of material, but at a reproductive level. The implementation of personality-oriented learning in the conditions of individualization of the learning process can be carried out through the use of group interaction technologies.

As L.V. Frolova wrote, the group form of educational work at a foreign language lesson gives a lot: it develops the ability to learn, provides better conditions for the ability to speak, provides the exchange of knowledge, promotes the growth of motivation for learning, teaches to understand each other

better [9]. An important factor of the need to use group forms of work in classes is a positive attitude to them on the part of students themselves, which is reflected in the positive dynamics of mastering the material. According to S.S. Rabunsky, students see the most attractive side of the group form of training in the possibility of joint activity and communication in the classroom.

As for such methods as interchange of tasks, performance of exercises in pairs or groups, mutual dictation, they make it possible to unite a group heterogeneous in terms of language proficiency level and go ahead of the existing level of students, as well as to purposefully form the skills of creative speech and thinking activity. It is worth noting that in this case game technologies (debates, discussions, compilation and presentation of syncweins, crossword puzzles, mind maps, role-playing and business games), technologies of active and problem-based learning (brainstorming), as well as the project method come to the aid of the students.

Conclusion

Undoubtedly, methodologists and pedagogues of our time advocate individualized teaching of a foreign language in general and a second foreign language in particular. It seems to us to be important, and the present graduate work is devoted to this issue.

It is worth noting that any teacher should have a so-called "student's personal map" to record the individual characteristics, abilities to master a foreign language of each student and be able to use it to create a situation of success in the classroom.

References

1. Bergmann, J., Smith, E. Flipped Learning 3.0: The Operating System for the Future of Talent Development. Chicago IL: FLGlobal. – 2019. – 248 p.
2. Bergmann, J., Sams, A. Flip your classroom: reach every student in every class every day // International Society for Technology in Education. – 2022. –122 p.
3. Betty Lou Leaver "Teaching the Whole Class" / Per. from English by O. E. Bichenkova. – Moscow: New School, 1995. – 48 с.
4. Боровских, Т. А. Индивидуализация обучения школьников средствами образовательных технологий в условиях классно-урочной системы : на примере обучения химии : автореферат дис. ... доктора педагогических наук : 13.00.02 / Т. А. Боровских; [Место защиты: Моск. пед. гос. ун-т]. – Москва, 2011. – 47 с.
5. Felder, R. M., Brent, R. "Understanding Student Differences." J. Engr. Education, 2020. – 94(1), 57–72.
6. Gardner, H. Are there additional Intelligences? The case for the Naturalist Intelligence. Cambridge: President and Fellows of Howard College, 1995. – 195 p.

7. Gardner, H. Multiple Intelligence: The Theory in practice. New York: Basic Books, 1993. – 304 p.
8. Klassen, E. V., Odegova, O. V. Multilevel teaching of a foreign language in higher school // Methodical Questions teaches in higher education. – 2019. – Т. 8. – № 30. – С. 8–19. DOI: 10.18720/HUM/ISSN 2227-8591.30.01.
9. Сосницкая, О. Мягкие навыки: мягкие навыки жесткого характера. – [Веб-сайт] – URL: <http://be-st.ru/ru/blog/1310>. – Дата доступа: 10.10.2023.
10. Tataurschikova, D. Soft skills and hard skills. – [website] – URL: <https://4brain.ru/blog/soft-skills/>. – Accessed: 12.10.2023.
11. Zimmer, D. The development of the concept of self-confidence and social competence in behavior therapy // Soziale. Competence. Experimental results on the assertiveness training program ATP. Munich, 1978. – pp. 469–482.

UDC 81-23

COMPARATIVE ANALYSIS OF PROVERBS AND SAYINGS OF THE THEMATIC GROUP "FRIENDSHIP" (BASED ON THE MATERIAL OF ENGLISH, FRENCH AND RUSSIAN)

СРАВНИТЕЛЬНО-СОПОСТАВИТЕЛЬНЫЙ АНАЛИЗ ПОСЛОВИЦ И ПОГОВОРК ТЕМАТИЧЕСКОЙ ГРУППЫ «ДРУЖБА» (НА МАТЕРИАЛЕ АНГЛИЙСКОГО, ФРАНЦУЗСКОГО И РУССКОГО ЯЗЫКОВ)

Bogemova O.V. , Gruzdeva A.Yu.***

Pskov State University, Russian Federation

e-mail: bogemova@mail.ru , nastgrr796@gmail.com***

Богемова О.В. , Груздева А.Ю.***

Псковский государственный университет, Российская Федерация

Keywords: proverbs and sayings, paremiology, thematic classification, partial equivalent, full equivalent, non-equivalent.

Ключевые слова: пословицы и поговорки, паремиология, тематическая классификация, частичный эквивалент, полный эквивалент, безэквивалентная пословица.

Abstract. This article is devoted to the comparative analysis of proverbs and sayings of the thematic group "Friendship" in English, French and Russian in order to identify the peculiarities of the national reflection of the concept of "Friendship" in the listed languages and to establish their similarities and

differences. The study can help to understand the similarities and differences in the culture and mentality of different peoples, as well as provide a better understanding of foreigners in the context of their cultural characteristics.

Аннотация. Данная статья посвящена сопоставительному анализу пословиц и поговорок тематической группы «Дружба» в английском, французском и русском языках с целью выявления особенностей национального отражения понятия «Дружба» в перечисленных языках и установления их сходств и различий. Исследование может помочь понять сходства и различия в культуре и менталитете разных народов, а также позволить лучше понимать иностранных собеседников в контексте их культурных особенностей.

The linguistic culture of each nation includes stable phrases used in oral and written speech. These phrases are distinguished by their brevity and universality of usage. The national culture of the people is learned through language. The language reflects the mentality of the people, the key stages of its historical and cultural development, generally accepted ideals and values. Such phraseological units as proverbs and sayings reflect the long-term experience and knowledge of the nation.

The science of paremiology is engaged in the study and classification of paroemias (stable phraseological units) that have an educational character. The most striking distinctive feature of proverbial sayings is didactic nature.

At the present time there are several classifications of proverbs and sayings:

1) alphabetical classification based on the principle of placement in alphabetical order (it was used in the collections of N. I. Tolstoy and I. V. Fedosov);

2) classification which is based on the distribution of proverbs and sayings by reference words (used in the works of A.M. Zhigulev, V. M. Mokienko and T. G. Nikitina);

3) monographic classification based on combining proverbs and sayings by place or time of their collection;

4) genetic classification, according to which the material is distributed by origin (this is how V. M. Mokienko's dictionary was created);

5) thematic classification based on the division of proverbial sayings by the topics of the utterance (used in the works of V. I. Dahl, A. S. Spirin, V. I. Zimin).

A comparative analysis of proverbs and sayings of the thematic group «Friendship» was conducted based on the thematic classification.

The study showed that most of the Russian proverbs and sayings have a corresponding analogue in a foreign language. Full equivalent of proverbs are those proverbs that completely coincide in meaning, stylistic coloring but differ in the number of the noun or the order of words. A partial equivalent is a proverb that is equivalent to the proverb of the original language in meaning, function and stylistic coloring, but differs in its figurative content.

For example, the Russian proverb «Хороший друг в лицо ругает, а за глаза хвалит». A partial equivalent of this proverb in English is the proverb "Is not a good friend that speaks well of us behind our backs». The English proverb translates as "He is a good friend who speaks well of us behind our back," which coincides in meaning with the Russian proverb, but differs in figurative content.

The proverb «Не имей сто рублей, а имей сто друзей» in Russian means that friendship is much more valuable than material goods. Friendly participation, attention and sympathy cannot be replaced by any amount of money. In English there is a partial equivalent of the Russian parody: "A friend in court is better than a penny in purse", the literal translation of which is "It is better to have a friend in court than a coin in your wallet."

Speaking about the difference of interests and the discrepancy of the position of people, Russians say «Гусь свинье не товарищ» including the proverbial images of different animals (beast and bird). In English there is a full equivalent of this proverb "A goose is no playmate to a pig". The French comprehend this social difference through a parallel of the same order – "On n'ai jamais vu une pie avec un corbeau" (We have never seen a magpie with a raven).

The famous Russian proverb «Друг познается в беде» has full equivalents in French "Au besoin on connaît l'ami", "C'est dans la nécessité que l'on connaît ses vrais amis».

The Russian proverb «Лучше быть одному, чем в плохой компании» that reflects traditional wisdom and experience, as it teaches that loneliness is preferable to bad company. In French there is a full equivalent: "Il vaut mieux être seul que mal accompagné".

Having analyzed the number of full and partial equivalents of the thematic group "Friendship", the number of full equivalent proverbs and sayings reaches 65 %, and partial equivalents reach 35% in the three analyzed languages.

Speaking about the reasons for the existence and functioning of equivalents, it can be noted that some expressions have the same source, for example, literary, mythological, biblical or other. Thus, there are many equivalent proverbs and sayings in the three analyzed languages. Their existence is caused by the close cultural and historical contacts of peoples.

A number of proverbs and sayings of this thematic group do not have equivalents in any of the analyzed languages. Non-equivalent proverbs and sayings are such proverbs and sayings that are missing in a different culture.

Non-equivalent English proverb: the proverb "Friendship increases in visiting friends, but in visiting them seldom». There is no equivalent with a similar meaning in Russian.

Non-equivalent Russian proverb: the proverb «Вяжись лычко с лычком, ремешок с ремешком» says that people find each other by interests and joint activities.

Non-equivalent French proverb: «Entre amis la nappe est inutile» says that people don't need a feast to be friends.

Having analyzed the non-equivalent proverbs and sayings of the three linguistic cultures, it can be concluded that the percentage of the total number of the selected proverbs and sayings is 17.5 %.

The proverbs and sayings of the three analyzed linguistic cultures contain a call for true and devoted friendship, for example:

Друг познается в беде. – A friend in need is a friend indeed; Au besoin on connaît l'ami.

In modern Russian culture, friendship has four central signs: emotional closeness, frankness, selflessness, help and support.

The character of the people and the peculiarities of their language mutually influence each other. Language lives in the personality and stores what passes from generation to generation. Thus, we have identified differences in the linguistic and cultural content of Russian, English and French proverbs and sayings. Despite the differences in the cultures of the Russian, English and French peoples, proverbs carry a common moral law which should be followed by all people, no matter what nationality they are.

Proverbs and sayings occupy a special place in the cultural and historical fund of each nation, vividly reflecting the key stages of its formation and development. Proverbs and sayings of the Russian, English and French languages of the thematic group "Friendship" were studied in detail in the presented research work. The concept of "Friendship" is carefully disclosed in all three languages. The difference lies in the fact that in the Russian mentality there is a certain "sanctity" of friendship; English culture is characterized by maintaining a distance between friends; French is characterized by uniqueness of proverbial expressions in which the image of a friend is conveyed by other figurative and expressive means of the language.

The basic concepts included in the proverbs of English, Russian, and French reflect the qualities such as willingness to help, kinship of souls, reliability. The ideas of trust, honesty, mutual respect as the basis are also common friendly relations. In all three languages there is a great call for true friendship. All languages reveal the theme of "Friendship" as an important concept in a person's life, putting it above many other moral values. In conclusion, it should be noted that, despite the presence of common semantic components reflecting universal values, in the compared proverbs and sayings there are different ideas concerning the assessment of friendship and friends, which is due to the national and cultural characteristics of each ethnic group.

References

1. Даль, В. И. Пословицы русского народа, 2003.
2. Когут, В. И. Proverbs et dictons de France et leurs equivalents russes. Французские пословицы и поговорки и их русские эквиваленты: Словарь французских пословиц и поговорок: В. И. Когут. – СПб.: Издательство «Антология», 2015.

3. Кузьмин, С. С. Русско-английский словарь пословиц и поговорок, 2001.
4. Маргулис А., Холодная А. Русско-английский словарь пословиц и поговорок / Russian-English Dictionary of Proverbs and Sayings. McFarland & Company, Inc., Publishers Jefferson, North Carolina, and London, 2000.
5. Модестов, В. С. Английские пословицы и поговорки и их русские соответствия, 2007.
6. Сидоркова, Г. Д. Прагматика паремий: пословицы и поговорки как речевые действия, 1999.
7. Ivanov, E. E., Petrushevskaja, J. A. Etymology of English Proverbs [Электронный ресурс]: Journal of Siberian Federal University. Humanities & Social Sciences 5, 2015.

UDC 81-23

**PECULIARITIES OF TRANSLATING
STRATEGIES IN CHILDREN'S FICTION (BASED
ON THE SHORT STORIES OF R. GOSCINNY
"LE PETIT NICOLAS")**

**ОСОБЕННОСТИ ПЕРЕВОДА ПРОИЗВЕДЕНИЙ
ДЕТСКОЙ ХУДОЖЕСТВЕННОЙ ЛИТЕРАТУРЫ
(НА МАТЕРИАЛЕ ПРОИЗВЕДЕНИЯ
Р. ГОСИННИ «МАЛЕНЬКИЙ НИКОЛЯ»)**

Bogemova O.V. , Khanvelyan S.A.***

Pskov State University, Russian Federation

e-mail: bogemova@mail.ru , hwan.sona@yandex.ru***

Богемова О.В. , Ханвелян С.А.***

Псковский государственный университет, Российская Федерация

Keywords: children's fiction, translation of children's fiction, translation peculiarities, translation equivalence, translation transformations.

Ключевые слова: детская художественная литература, перевод детской художественной литературы, особенности перевода, эквивалентность перевода, переводческие трансформации.

Abstract. The article examines the specifics of children's fiction as a genre, and the features of its translation. The problems that can be encountered when translating children's literature are outlined, as well as the principles that a translator of this genre should adhere to. An adequate translation must achieve translation equivalence. To achieve this, translators use different transformations: lexical, grammatical and lexico-grammatical. The material in

the article allows to understand how to adapt the source text to the realities of another culture.

Аннотация. В статье рассмотрена специфика детской художественной литературы как жанра и особенности её перевода. Изложены проблемы, с которыми можно столкнуться при переводе детской литературы, и принципы, которых следует придерживаться переводчику данного жанра. Адекватный перевод должен достигать необходимой степени переводческой эквивалентности. Чтобы её добиться, используются следующие переводческие трансформации: лексические, грамматические и лексико-грамматические. Материал статьи позволяет понять, как адаптировать исходный текст в соответствии с реалиями другой культуры.

Children's literature occupies a special place in fiction in general. First of all, this is due to the peculiarity of the target audience, which are children.

Being a separate genre, children's literature has characteristic features and differs significantly from adult literature. The following features of this genre are distinguished:

An intermediate position between narrowly local literature and classical literature. Works for children have universal reception potential.

The specifics of the dialogue. The writer builds a dialogue with an imaginary reader, taking into account the difference in levels of ethical and aesthetic perception. The child reader turns out to be more important than the author.

The educational character. Children learn the facets of good and bad through various situations in the literature available to them. Children's fiction largely shape the child's worldview and his moral attitude towards various situations.

Translation of children's fiction from foreign languages has always been relevant, especially now, in the process of globalization. Such works due to the peculiarities of the target audience and cultural differences, require competent adaptation of the text and localization of various realities used in it.

The translator of children's fiction has a special task – to recreate during translation the emotional impact on the reader that the author of the original intended to convey to his reader or listener.

Literary translation is required to reproduce not only the images and thoughts of the translated author, not only plot schemes, but also author's literary manner, creative personality and style. This element is important because the author's style reflects both the use of various linguistic means and certain speech features aimed at the target audience (in this case, we are talking about children).

Among other things, the translator must have in-depth knowledge of those cultures whose language is involved in translation, because often the characteristic features of a character are transmitted by the author through the prism of the social environment that surrounds him.

When translating, you need to pay attention to the vocabulary used by the translator. Words should not be excessively heavy for children's perception. Thanks to the language of such literature, the child forms an active vocabulary, which includes words that the speaker of this language not only understands, but also uses himself.

There are many nuances that a translator of children's literature faces. Among the problems in translation we can distinguish the following:

1. The problem of preserving imagery when translating a children's work. The image of a specific situation, a specific hero, is formed into the image of a whole work. It is very important to convey the image correctly and clearly. This is achieved by certain associative and figurative characteristics. Sometimes these characteristics are not equivalent, or have a low level of equivalence in relation to the original.

2. Genre and stylistic features of the translation of children's literature. The genre-stylistic features of the original are understood as its identification with a certain type of speech. In fiction, including children's literature, different possibilities of word usage are used – direct and figurative meanings of words, linguistic tropes and stylistic tropes.

3. The emotional component transfer in the translation of children's literature. When reading, the child's emotional attitude to the characters, their feelings, and actions prevails. The achievement or absence of equivalence depends on the preservation or loss of the original emotional component during translation.

4. Another specific component of the children's literature translation is the so-called «readability». The translator must skillfully convey repetitions, rhyme and onomatopoeia, if any, in the text intended for children.

5. It is also difficult to translate different names, first names and surnames, toponyms, dialectisms, professionalisms and neologisms, comparative phrases, metaphors and wordplay. Often, there are no exact analogies in the language into which they are translated, or they will be incomprehensible to the child.

Achieving translation equivalence («translation adequacy»), despite the discrepancies in the formal and semantic systems of the two languages, requires the ability to make numerous and qualitatively diverse interlanguage transformations – the so-called translation transformations. These transformations allow the translator to cope with the problems outlined above. It is customary to distinguish three types of transformations: lexical, grammatical and lexico-grammatical.

The material of the practical part of our research was the works of Rene Gossini «Le petit Nicolas a des ennuis» and «Le petit Nicolas et les copains», translated by I. L. Pressman. Let's consider examples of the transformations we have identified.

Among lexical transformations, lexico-semantic substitutions are most often used, where generalization and specification prevail. Examples of specification:

– C'est pour ça qu'après l'école, je suis allé en courant dans la boulangerie, et quand la dame m'a demandé ce que je voulais, je lui ai donné mon billet et je lui ai dit... (Поэтому после уроков я побежал в булочную-кондитерскую, и, когда продавщица меня спросила, чего хочу, я отдал ей свои деньги и попросил...)

Most of the examples of specification found by us are a narrowing of the meaning of the verb *dire*:

- Bah ! a dit Maixent. (Как же! – хмыкнул Мексан.)
- Tiens ! a dit Rufus. (Кстати! – вспомнил Руфюс.)

Next, consider examples of generalization:

- Et il a pris une sole dans la main. (И он схватил одну рыбку.)
- Clotaire, c'est un bon copain. (Клотер – хороший парень.)

Lexical addition and omission techniques are also not uncommon. Let's look at examples of addition:

– Et tu verras, a dit Rufus. (Это ещё что, вот посмотришь, что будет дальше, – вздохнул Руфюс.)

The following technique, omission, is represented by the following sentence:

- D'abord, il est moche comme tout. (Во-первых, он жуткий урод.)

The discrepancy between the source language and the target language also arises due to structural and semantic differences between languages. The most typical grammatical transformations are: division of sentences, permutations and grammatical substitutions.

Short sentences are practically not found in Rene Gossini's books. In her translation, I. L. Pressman tends to resort to such a technique as sentence fragmentation:

– C'est le chouchou et il a le droit de tout faire, et si je lui tape dessus, il va tout raconter à mes parents, et puis après je suis privé de cinéma, jeudi! Любимчик, ему всё можно. (Если стукнешь его, тут же бежит жаловаться родителям, а потом в четверг меня не пускают в кино!)

Such a transformation, as a word order change, is typical for a translation from French, as shown in this example:

– D'abord, t'avais qu'à faire quatrième en histoire si tu voulais jouer au foot. (И вообще, если тебе так хочется играть в футбол, попробовал бы сам занять четвёртое место по истории!)

A very typical grammatical transformation when translated into Russian is the replacement of a noun with a verb:

- Eh bien, félicitations, Joachim! (Что ж, Жоаким, поздравляю.)

Of the complex transformation techniques, integral transformation is the most common. Here are some examples of this transformation:

- C'était gagné. (Вот это был номер!)
- La la 1ère! (Что, получил?)

Having carried out a comparative analysis of the selected texts, we can say that translators make a lot of efforts to create a successful translation. Translators

of children's literature try to avoid mistakes, or smooth them out by adding their own style, author's neologisms and adapting the text to a reader of a certain age. In many ways, this can be done only through the use of translation transformations that helps localize the source text for the recipient of the translating language.

A review of the features inherent in the translated material of children's literature and an analysis of the translation methods applied to them convinces that a large variety of linguistic means found in the originals corresponds to no less variety of means used for their transmission in the Russian language.

References

1. Арзамасцева, И. Н. Детская литература : учебник / И. Н. Арзамасцева, С. А. Николаева. – М. : Издательский центр Академия, 2005. – 576 с.
2. Горький, М. О детской литературе. Статьи и высказывания, письма, / М. Горький. – 3 изд. – М. : Академия, 2007. – 72 с.
3. Зубарева, Е. Е. Детская литература: учеб. пособие / Е. Е. Зубарева. – М. : Просвещение, 1989. – 551 с.
4. Комиссаров, В. Н. Теория перевода (лингвистические аспекты) : учебник / В. Н. Комиссаров. – М. : Высш. Шк., 1990. – 253 с.
5. Фёдоров, А. В. Основы общей теории перевода (лингвистические проблемы) : учеб. пособие.
6. Швейцер, А. Д. Теория перевода : статус, проблемы, аспекты / А. Д. Швейцер. – М. : Наука, 1988. – 215 с.

UDC 81

THE CONCEPT OF GOD IN CHRISTIANITY AND THE LANGUAGE

КОНЦЕПТ БОГ В ХРИСТИАНСТВЕ И В ЯЗЫКЕ

Buyevich A.A.

Vitebsk State Technological University, Belarus

e-mail: englishvtb@gmail.com

Буевич А.А.

Витебский государственный технологический университет,

Республика Беларусь

Keywords: language, religion, concept, Christianity, God, the Savior.

Ключевые слова: язык, религия, концепт, христианство, Бог, Спаситель.

Abstract. The article deals with the fundamental and central to the Russian conceptosphere and Russian consciousness religious concept God, gives its analysis and shows different conceptual forms of representation. GOD can be represented through abstract concepts, such as LIFE, LOVE, LAW, WAY,

LIGHT, POWER; through descriptive names of God, such as ALMIGHTY, OMNISCIENT, MERCIFUL; through personalized forms of the concept of GOD, such as LORD, CREATOR, KING, FATHER, JUDGE, SAVIOR, TEACHER.

Аннотация. В статье рассматривается фундаментальный и центральный для русской концептосферы и русского сознания религиозный концепт Бог, дается его анализ и показаны различные концептуальные формы репрезентации. БОГ может быть представлен через абстрактные понятия, такие как ЖИЗНЬ, ЛЮБОВЬ, ЗАКОН, ПУТЬ, СВЕТ, СИЛА; через описательные имена Бога, такие как ВСЕМОГУЩИЙ, ВСЕВЕДУЩИЙ, МИЛОСЕРДНЫЙ; через персонифицированные формы концепта БОГ, такие как ГОСПОДЬ, ТВОРЕЦ, ЦАРЬ, ОТЕЦ, СУДЬЯ, СПАСИТЕЛЬ, УЧИТЕЛЬ.

Language and religion are two forms of displaying the world in people's minds, two elements in the human soul, two of the deepest interconnected principles in human culture. Religion deals with the fundamental moral values, ethical ideals, "cherished meanings, the most important for man and society" [1, p. 4].

A distinctive feature of religion is the belief in the supernatural, the possibility of contact with it. In Christianity, the supernatural is personified in God.

The bases of religious concepts are the ideological ideals of Christianity, valuable meanings, ideological, cultural and historical codes. All these represent an integral part of communication and form the basis of the ideological guidelines of society.

The relevance of this article is due to social, cultural and axiological changes, general interest in the problems of studying cognitive structures of the religious sphere.

According to the Christianity, more than two thousand years ago, the almighty and omnipresent God took possession of the Immaculate Virgin Mary and incarnated in human nature [2, Mth.1:20–21].

This Divine Incarnation is a unique event in the history of mankind, because before the birth of Jesus Christ, God remained invisible and unknown to people, but after becoming a Man, God revealed Himself as a Person. Jesus Christ lived a human life, endured temptations and paid with his innocent Blood for the sins of people. The resurrection of Christ the Savior means for the Christians victory over death and a newfound opportunity to live with God [3, p. 260].

We present an analysis of the concept of GOD, which is fundamental and central to the Russian conceptosphere and Russian consciousness. This concept is a key one in religious communication, since it determines the content of all other concepts, and also forms the scope of religious communication. Depending on the religious tradition, the concept of GOD may have a different level of representation. For example, in Jewish religious texts, it is verbalized only

through consonants, and in Orthodox Church Slavonic written texts sacred words are represented with specific abbreviations.

In traditional Islam, Allah is not the name of God, but is literally translated as "God Almighty". According to the Muslim theological doctrine, God has 100 names, 99 of them are known, while the hundredth name of God is mysterious and unknown to anyone.

In the Christian religious tradition, God has different conceptual forms of representation.

Firstly, GOD is represented through abstract concepts: LIFE, LOVE, LAW, WAY, LIGHT, POWER, BEAUTY, PEACE, HARMONY, TRUTH: Whoever does not love has not known God, because God is love [1 John 4:8].

Secondly, descriptive names of God, which convey his qualities, are also inherent in the Christian picture of the world: ALMIGHTY, OMNISCIENT, MERCIFUL, the GOD OF ABRAHAM, ISAAC AND JACOB, etc.

Thirdly, the Christian worldview is characterized by personalized forms of the concept of GOD: GOD, LORD, CREATOR, KING, FATHER, JUDGE, SAVIOR, TEACHER.

Each of these forms contains a corresponding attribute potential. God the LORD, the CREATOR, the KING suggests Worship: Exalt the LORD our God and worship at his footstool; he is holy [Ps.99:5]; Service: And God said, "I will be with you. And this will be the sign to you that it is I who have sent you: When you have brought the people out of Egypt, you will worship God on this mountain" [Exodus 3:12]; Praise: Let this be written for a future generation, that a people not yet created may praise the LORD [Ps. 102:18].

God as KING, FATHER, JUDGE, SAVIOR guides and protects his people: I am the Lord, and there is no Savior but Me [Isaiah 43:11]; He blesses the righteous [Gen. 9:1]; provides laws [Deut.4:13]; performs righteous judgment [Gen.16:5]; has mercy and forgives those who repent [Ser. 17: 20].

For the Russian people, Christ the Savior is, first of all, the embodiment of kindness and patience. Russian desire to do good is combined with such traits of Russian character as mercy and compassion. These spiritual qualities are reflected in Russian proverbs and sayings: "God gives to a merciful person", "You wish good, then do good!", "It is better to live with compassion than with envy", "The heart is not a stone. A man lives for a sympathy", etc.

The Russians have always seen the suffering and meek God in the image of the Savior: Florensky, P.A. said: "The Russian people, in their religiosity, live with the suffering Christ ... The Russian Christ, so close to the meager Russian landscape, unsightly, gray villages –... This Christ is a friend of sinners, the poor, the weak, the poor in spirit."

Russian veneration of holy fools and passion-bearers, which is practically unknown in other countries, becomes understandable, the Russian category of suffering is embodied in the image of Christ, Who leads to salvation.

Russian motive of voluntary suffering is especially significant for understanding the image of the Russian holy fool, who can also be considered as a cultural figure of the Russian world. The holy fools were ascetics in the name of the Lord, who voluntarily assumed the appearance of a madman and refused the worldly goods and delights of life.

The word "fool" has the meaning of "abnormal", but this "abnormality", being "foolishness for Christ's sake", is intended to emphasize the truth uttered by the Savior: "My kingdom is not of this world" [2, John 18:36], and the inhabitants of this Kingdom seem "strange", i.e. wanderers in the world.

From the Christian point of view, the highest wisdom is sacrificial love for God and people, therefore, the fools, being God's wise men, like the Savior, condescended to sacrificial service to the world.

The results of our research indicate the unique image of the Savior for the Russian culture. For many centuries, faith in Christ the Savior has nourished the soul of the Russian people. Icons in the name of the Savior are being painted, temples are being built, monasteries are being built. The lexeme "spas" (savior) is the basis for some Russian surnames, names of cities, streets, alleys. Thanks to the spiritual creativity of the Russian people, the image of the Savior is widely represented in folk art, music and literature.

References

1. Мечковская, Н. Б. Язык и религия: пособие для студентов гуманитарных вузов / Н. Б. Мечковская. – М. : ФАИР, 1998. – 352 с.
2. The Bible. The New International Version [electronic resource] – Режим доступа: https://www.biblestudytools.com/niv/#google_vignette. – Дата доступа: 10.10.2023.
3. Св. Афанасий Великий. Слово о Воплощении Бога Слова и о пришествии Его к нам во плоти // Творения : в 4 т. – М., 1994. – Т. 1, гл. 54.

UDC 378

MULTICULTURAL PROGRAMMING OF THE
CAMPUS AND STUDENTS' CREATIVITY

МУЛЬТИКУЛЬТУРНОЕ
«ПРОГРАММИРОВАНИЕ» КАМПУСА
И КРЕАТИВНОСТЬ СТУДЕНТОВ

Bultseva M.A.

*National Research University Higher School of Economics, Russian Federation
e-mail: mbultseva@hse.ru*

Бульцева М.А.

*Национальный исследовательский университет
«Высшая школа экономики», Российская Федерация*

Keywords: intercultural attitudes, creativity, intercultural climate, students, social psychology.

Ключевые слова: межкультурные установки, креативность, межкультурный климат, студенты, социальная психология.

Abstract. Nowadays, stimulating students' creativity is a topical issue for educational organizations. Intercultural experience, if perceived positively, can be a source of creativity. This study considers whether multicultural programming as a way to manage intercultural climate of the campus may stimulate creativity, and what role intercultural attitudes play in this relationship. The study had a cross-sectional design, and was implemented on a sample of 182 Students of Russian universities. The results of data analysis (N=182) have shown that favourable multicultural climate contributes to students' creativity, partly as it leads to more positive attitudes towards international students.

Аннотация. Развитие креативности студентов – актуальный вопрос для современных образовательных организаций. Межкультурный опыт может стимулировать креативность, если он воспринимается и протекает позитивно. Данное исследование рассматривает взаимосвязь мультикультурного «программирования» как способа управления межкультурным климатом вуза и креативности студентов, и особый акцент делает на медиативной роли межкультурных установок. Исследование имело кросс-секционный дизайн и было реализовано на выборке из 182 студентов российских вузов. Результаты анализа показали, что благоприятный межкультурный климат может способствовать креативности студентов как напрямую, так и через формирование более позитивных установок к иностранным студентам.

Creativity is the ability to create something new and useful [Sternberg, Lubart, 1999]. Since creativity is one of the key competencies in the labor

market today, universities need to develop not only highly specialized professional competencies, but also the creativity of their students. Considering the volume of global migration, including educational one, this paper focuses on culture-associated factors of creativity. Although most educational organizations do not organize specialized courses aimed specifically at the development of creativity, they are able to stimulate the creativity of their students by managing their intercultural learning.

Multiple researchers support the idea that creativity is a sociocultural phenomenon. Previous studies identified perspective positive influence of intercultural experience on creativity [Maddux, Galinsky, 2009; Bultseva and Lebedeva, 2021]. However, the potential of intercultural experience may be realised into increased creativity (e.g., extended pool of ideas or search for unconventional solutions etc) only if a person perceives the experience positively and has sufficient psychological resources to cope with its challenges [Crisp and Turner 2011]. Thus, the key mechanism that ensures a qualitative transition from the perception of new information during intercultural experience to creativity, is intercultural learning as well as the conditions which determine its success.

Intercultural learning is a dynamic communicative process of learning about the norms, traditions, and values of another culture, aimed at developing the readiness and ability of people from different cultures to understand each other [O'Brien, Tuohy, Fahy, Markey, 2019]. Most often, intercultural learning is considered in the context of its results, e.g. as growth of intercultural competence and its elements [Fenech, Baguant, Abdelwahed, 2020; Gondra, Czerwionka, 2018]. At the same time, a study conducted on a Russian sample showed that such a component of cross-cultural competence as positive attitudes towards representatives of other cultures - that is, the willingness to interact with them - is directly positively associated with students' creativity, and partially mediates the relationship between creativity and cultural the heterogeneity of the study group and the intensity of intercultural friendly contacts [Bultseva, Lebedeva, 2021]. Indeed, people with positive attitudes towards other cultures and their representatives, are more open to new experiences and are less subject to stereotypes [Gallego, Pardos-Prado, 2014]. Accordingly, they are more receptive to new information and develop their creativity.

It is important to consider that learning process do not take place in a vacuum; it is necessary to create a safe learning space in which students can live new experiences, reflect on them, and change their ideas. The basis for intercultural learning is to create opportunities for learning and understanding one's own and other cultures, as well as intercultural interaction supported by the university [O'Brien, Tuohy, Fahy, Markey, 2019]. The climate of the university as a whole describes the perception of the environment by the participants in the educational process. The racial, ethnic or cultural diversity is an important component of the climate of an educational organization [Hurtado, Clayton-

Pedersen, Allen, Milem, 1998]. In general, it is believed that the university environment is a favorable place for intergroup, including intercultural, contacts, organizing joint activities of students [Van Laar, Levin, Sidanius, 2009]. However, the positive potential of intergroup contact can be realized only if a number of conditions are met. In particular, the participants in the interaction should be equal in status, have common goals and be involved in joint activities. Finally, it is important that the interaction itself must be supported by institutional norms and rules. Thus, it makes sense to consider the intercultural climate comprehensively, in relation not only to the degree of cultural diversity of the learning environment, as a given, but in relation to multicultural programming – that is, managing the environment in order to develop intercultural understanding among students. [McClellan, Cogdal, Lease, Londoño-McConnell, 1996]. So, multicultural programming actually represents a set of conditions for formation of favourable intercultural climate in the campus. Such a climate stimulate intercultural learning of students and contribute to the formation of trust within the campus [Yao, Martin, Yang, Robson 2019].

To conclude, we can expect that implementation of multicultural programming principles leads to formation of more positive intercultural attitudes; while these attitudes promote students creativity. So complex hypothesis can be formulated. Hypothesis: intercultural attitudes at least partly mediates the positive relationship between multicultural programming and creativity of students. This hypothesis can be supported if four conditions are met: (1) multicultural programming positively relates to intercultural attitudes; (2) multicultural programming positively relates to creativity; (3) intercultural attitudes positively relates to creativity; (4) indirect effect of multicultural programming on creativity is significant.

This quantitative study had a cross-sectional one-sample design and was implemented in the form of a socio-psychological survey. The survey questionnaire was posted on the anketolog.ru Internet platform. After excluding poor-quality completed questionnaires, the final sample of the study included the answers of 182 respondents – Russian students aged 18 to 58 years (54.9 % women, 94.5 % Russians, 81.3 % undergraduate students). Instruments used were Multicultural Assessment of Campus Programming – MAC-P) [McClellan, Cogdal, Lease, Londoño-McConnell, 1996], Attitudes subscale from AIC [Fantini, Tirmizi, 2006], Runco Ideational Behavior Scale [Runco, Plucker, Lim, 2001]. All the instruments were translated to Russian, adapted and validated during pre-test. To test the hypothesis, SEM model was built in AMOS and an analysis of direct and indirect effects (mediation) was carried out.

The results are present on the pic.1 below. Specifically, study have found positive relationship between multicultural programming and intercultural attitudes ($\beta=0.39$); multicultural programming and creativity ($\beta=0.16$);

intercultural attitudes and creativity ($\beta=0.45$). The indirect effect of multicultural programming on creativity is significant as well ($\beta=0.17$).

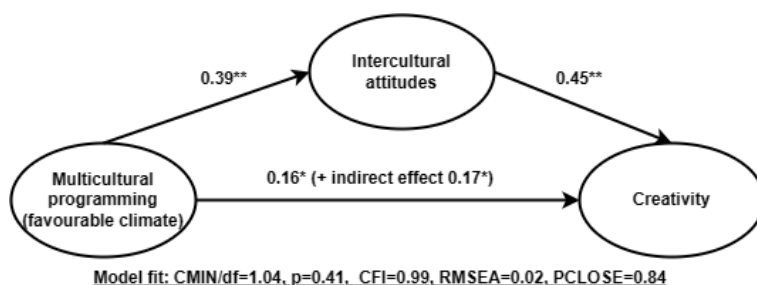


Fig. 1 – Model of the study

Note: ** - $p < 0.01$; * - $p < 0.05$

The results confirm the hypothesis. This is in good agreement with the results of previous research, confirming that the university's efforts to create intercultural understanding among students create the basis for trusting and friendly communication with representatives of other cultures at the university [Ward, Zarate, 2015; Yao, Martin, Yang, Robson 2019], as well as for developing students' intercultural competence [Schwarzenthal, Schachner, Juang, van de Vijver, 2019]. Novelty of the study lies in the fact that findings reveal the relationship between intercultural climate and creativity, as well as cultural learning as a mechanism of this relationship. That underlines the necessity to intensify universities efforts for creation of favourable intercultural climate. The result is especially relevant for multicultural societies like Russia or Belarus.

References

1. Bultseva, M. A., Lebedeva, N. M. The role of intercultural competence, in the relationship between intercultural experiences and creativity among students // *International Journal of Intercultural Relations*. – 2021. – Vol. 82. – P. 256–264.
2. Crisp, R. J., Turner, R. N. Cognitive adaptation to the experience of social and cultural diversity // *Psychological bulletin*. – 2011. – Vol 137. – № 2. – C. 242–266.
3. Fantini, A., Tirmizi, A. Exploring and assessing intercultural competence. Final Report of a Research Project conducted by the Federation of The Experiment in International Living with funding support from the Center for Social Development at Washington University, St. Louis, Missouri, 2006. [Electronic source]. URL: http://digitalcollections.sit.edu/cgi/viewcontent.cgi?article=1001&context=worldlearning_publications/ – Accessed: 10.10.2023.

4. Fenech, R., Baguant, P., Abdelwahed, I. Cultural learning in the adjustment process of academic expatriates // *Cogent Education*. – 2020. – Vol. 7. – № 1. – Art. 1830924.
5. Gallego, A., Pardos-Prado, S. The big five personality traits and attitudes towards immigrants // *Journal of Ethnic and Migration Studies*. – 2014. – Vol. 40. – № 1. – P. 79–99.
6. Gondra, A., Czerwionka, L. Intercultural Knowledge Development during Short-Term Study Abroad in the Basque Country: A Cultural and Linguistic Minority Context // *Frontiers: The Interdisciplinary Journal of Study Abroad*. – 2018. – Vol. 30. – № 3. – P. 119–146.
7. Hurtado, S., Clayton-Pedersen, A. R., Allen, W. R., Milem, J. F. Enhancing campus climates for racial/ethnic diversity: Educational policy and practice // *The review of higher education*. – 1998. – Vol. 21. – № 3. – P. 279–302.
8. Maddux, W. W., Galinsky, A. D. Cultural borders and mental barriers: The relationship between living abroad and creativity // *Journal of personality and social psychology*. – 2009. – Vol. 96. – № 5. – P. 1047–1061.
9. McClellan, S. A., Cogdal, P. A., Lease, S. H., Londoño-McConnell, A. Development of the Multicultural Assessment of Campus Programming (MAC-P) Questionnaire // *Measurement and Evaluation in Counseling and Development*. – 1996. – Vol. 29. – № 2. – P. 86–99.
10. O'Brien, B. Tuohy, D., Fahy, A., Markey, K. Home students' experiences of intercultural learning: A qualitative descriptive design // *Nurse Education Today*. – 2019. – Vol. 74. – P. 25–30.
11. Runco, M. A., Plucker, J. A., Lim, W. Development and psychometric integrity of a measure of ideational behavior // *Creativity Research Journal*. – 2001. – Vol. 13. – № 3-4. – P. 393–400.
12. Schwarzenhal, M., Schachner, M. K., Juang, L. P., Van De Vijver, F. J. Reaping the benefits of cultural diversity: Classroom cultural diversity climate and students' intercultural competence // *European Journal of Social Psychology*. – 2020. – Vol. 50. – № 2. – P. 323–346.
13. Van Laar, C., Levin, S., Sidanius, J. Ingroup and Outgroup Contact: A Longitudinal Study of the Effects of Cross-Ethnic Friendships, Dates, Roommate Relationships and Participation in Segregated Organizations // *In Improving Intergroup Relations: Building on the Legacy of Thomas F. Pettigrew* / U. Wagner, L. R. Tropp, G. Finchilescu, C. Tredoux (Eds.). – Blackwell Publishing LTD, 2009. – P. 125–142.
14. Ward, K. M., Zarate, M. E. The influence of campus racial climate on graduate student attitudes about the benefits of diversity // *The Review of Higher Education*. – 2015. – Vol. 38. – № 4. – P. 589–617.
15. Yao, Q., Martin, M. C., Yang, H. Y., Robson, S. Does diversity hurt students' feeling of oneness? A study of the relationships among social trust, university internal brand identification, and brand citizenship

behaviors on diversifying university campuses // Journal of Marketing for Higher Education. – 2019. – Vol. 29. – № 2. – P. 209–229.

UDC 81.276.6

**PROSOCIALY MOTIVATED STUDENTS IN
TEACHING PROFESSIONALLY-ORIENTED
FOREIGN LANGUAGE**

**ПРОСОЦИАЛЬНО МОТИВИРОВАННЫЕ
СТУДЕНТЫ ПРИ ОБУЧЕНИИ
ПРОФЕССИОНАЛЬНО ОРИЕНТИРОВАННОМУ
ИНОСТРАННОМУ ЯЗЫКУ**

Burdyko O.V.

Vitebsk State Technological University, Belarus

e-mail: burdyko76@mail.ru

Бурдыко О.В.

Витебский государственный технологический университет,

Республика Беларусь

Keywords: technical university, prosocial motivation, creative thinking, technical educational priorities, advantages, disadvantages.

Ключевые слова: технический университет, просоциальная мотивация, креативное мышление, приоритеты технического образования, преимущества, недостатки.

Abstract. The article deals with the situation of adaptation of technical Belarusian universities to the prosocially-oriented education, and the preservation of its quality. The experience of using the prosocial approach in teaching foreign languages is shown, when considering its advantages and disadvantages.

Аннотация. В статье рассматривается ситуация адаптации белорусских технических университетов к просоциально ориентированному образованию и сохранению его качества. Показан опыт использования просоциального подхода в обучении иностранным языкам при рассмотрении его преимуществ и недостатков.

Undoubtedly, the strategic guidelines for the transformation of technical higher education today should be associated with the comprehensive development of students' creative potential. In turn, creativity is associated with the concept of creativity. Creativity involves creative thinking, the ability to expand the vision of problems and the search for solutions.

The purpose of the future experts' motivation at the present stage is the communicative competence development and readiness for cross-cultural communication with the use of the learned language as the instrument of this

communication. The tasks for research are to identify the expansion of the vocational training experts' profile, and also to find the ways of the foreign-language communication skills development. Practical application of the motivation development for the students of higher educational institutions is focused on the formation of the students' academic mobility as the personal quality allowing future expert to develop their professional abilities by means of studying and getting foreign experience at the foreign language lessons.

The current stage of technical higher education development in Belarus is connected with the processes of the domestic education system, at the same time keeping its cultural national and specific priorities. Crisis conditions of the modern development in Belarus including the sphere of the technical higher education couldn't be more perfectly reflected in the contradictions in educational approaches to training and education of technical university students. It has historically developed that educational priorities are expressed through a prism public political and social relations of production. The situation of technical educational priorities formation is not an exception in this sense. Thus, there is such phenomena as lack of due quantity of jobs for young specialists, a regional not demand for a number of specialties, backwardness of production infrastructure in a number of branches.

According to our research, in the context of Belarusian technical students' academic mobility development, following the most priority educational reference points, one of the perspective directions should allocate students' training within additional qualifications. In particular, the formation and the subsequent academic development and further the future expert's professional mobility, an indispensable condition assumes the development of prosocial motivation skills of foreign-language communication, which means that you develop a feeling of wanting to help other people. I didn't always know what to call it, but for years we observed that students who had meaningfully connected with someone during their research clearly felt compelled to create something that could meet that person's needs. Those students worked harder and were often more successful than others in our classes. To us it appeared that they were motivated by a genuine sense of urgency, not just the regular incentives of finishing the course and doing well academically. And perhaps we've been noticing a real phenomenon of prosocial motivation approach in teaching foreign languages at technical university.

The purposes of prosocial motivated technical education of future experts at the present stage join the development of communicative competence and readiness for cross-cultural communication with the use of the language learned as the instrument of this communication. In our professionally-oriented practice, we use a prosocial motivation approach which is based on the teaching model of appropriate social language through communication in real-life situations. It includes such parameters as motivation, purpose, informative value, novelty, pragmatism, functionality, and the nature of the interaction between a teacher

and a student, as well as the system of speech means. The syllabus involves flexibility and diversity of learning tools, their consistency with the ultimate goal of training as well as the student's social and personal needs.

We used also the set of methods to the analysis of the learning strategies of technical higher education of first-year students: these include methods of helping ourselves to recognize what is needed to learn process new language and work with other people in order to learn. Use of the correct strategy at the appropriate time can aid us to learn the language better and make us more independent learners.

In our professionally-oriented English teaching practice for first-year students, we can underline a few learning strategies. Repeating words that are new to the students over and over in their head until they commit them to memory. Guessing the meaning of words that are unknown to the students. Asking someone who speaks the language to repeat what they have said; making a recording of yourself speaking, then listening to it and analyzing and correcting your speaking and pronunciation; experimenting and taking risks by using the language that the students have just learnt in conversations with others. Making the decision to use the foreign language as much as you can by talking to tourists. Asking the teachers or your friends or classmates to give you their opinions about how well you use your language. Recognizing which area of vocabulary that you need to learn or practice and then learning it. Making the decision to write all the new words, the students come across in every lesson on a separate card.

An again created prosocial motivation approach in foreign-language competence initiates further development of the student's identity as feedback acts. In this case foreign-language competence has such characteristics as stability, completeness, completeness, flexibility, openness. A prosocial motivation competence as a process is strengthening of the personality's projective activity and dynamics of the personality's development on the basis of objects knowledge in the foreign-language reality. By the time of entering a technical university the elementary level of foreign-language competence is already considerably created therefore technical university is a defining stage in the development of competences, including, foreign-language competence.

We consider that all first-year students are different from each other and learn in different ways. In order to teach teenagers and adults rather than children, some student characteristics like past language learning experience and learning strategies are more relevant. It is best to discover our first-year students' characteristics by asking them or observing them. We gave them questionnaires at the end of a lesson asking whether they like the activities that were done in the class and why. They could also ask them what methods they did not like and what they did. Despite all these complexities, there is value in developing your ability to experience all facets of prosocial motivation approach. It can help you bring useful creative work into the world in a respectful way. The important

thing is to seek prosocial motivation skills. Set your compass in that direction; just don't assume that you will ever fully arrive at the destination. Use your caring and compassion for others to bring purpose to your creative skills and insight to your design work and to increase the chances that someone else might actually find what you're creating to be useful.

A lecturer who is teaching a large group cannot always meet the learner characteristics of each student. Therefore, lecturers can try to change their teaching methods and vary them. In this way, they can match the learner characteristics of a range of first-year students.

Due to our research, we find out, that first-year students developing prosocial motivation approach in the direction of technology will build a relationship between them and fluent speaking, which will allow them to increase their opportunities and become immersed in the process of learning.

A prosocial motivation method is a dynamic nonlinear process of the personality's transformation from the positions of system and valuable development in the professionally oriented significant foreign-language knowledge for the purpose of the educational and professional activity organization.

Today's graduates of technical university will have to work in multicultural environment. One should be aware that the duality and differences in the interpretation of certain phenomena by students of different cultures is inevitability inherent in the structure of the modern world. Therefore, according to modern scholars and teachers it is more important to teach students how to skillfully use a variety of competencies instead of writing what is prohibited or allowed in a particular country.

It is necessary to refer to the internal aspects of prosocial motivation approach: linguistic features of this or that language, regularity of language units development in the concrete language, the rule and norm of the language units use in speeches, the personality's psychological features in the course of the foreign language development. The internal aspects of prosocial motivation competence development, correspond to external aspects which treat regional geographic and regional features of the concrete language, social-and-linguistic position of foreign and native languages, similarities and distinctions in the social-and-cultur-al maintenance of the professionally-oriented languages learned and valuable society's categories and the carriers' attitude towards the learned and native languages, the social order for the knowledge volume and the level of practical foreign language skills.

A very useful element of prosocial motivation competence development is also focused on the formation of the students' academic mobility as the personal quality allowing the future specialist to develop his or her professional abilities by means of studying and familiarizing with foreign experience. Along with the professionally significant qualities development students have an opportunity to

expand the technically professional world outlook horizons considerably that defines the future expert's further degree of competitiveness.

As the survey showed, learning at an individual pace: it is choosing the rate of learning depending on students' individual needs) is an advantage for 100 percent respondents. The comprehensibility of the organizational, methodological and learning material was graded "nine" by 95 percent surveyed students. Mobility was graded "nine" by 70 percent respondents, "seven" – by 20 percent, "four" – by 8.7 percent, "two" – by 4.3 percent.

Prosocial motivation approach in teaching students with significant professionally-oriented foreign-language activity is a result of foreign-language competence development and it represents the subject embodiment of communicative function of language. Professionally oriented foreign language knowledge in the aspect of foreign-language competence development is socially caused value-oriented act which updating relies on the set of internal and external aspects. It is necessary to refer to the internal aspects: linguistic features of this or that language, regularity of language units development in the concrete language, the rule and norm of the language units use in speeches, the personality's psychological features in the course of the professionally-oriented foreign language development.

UDC 811.161.1

**PECULIARITIES OF THE RUSSIAN LANGUAGE
FUNCTIONING IN THE POLYETHNIC SPACE OF
DAGESTAN**

**ОСОБЕННОСТИ ФУНКЦИОНИРОВАНИЯ
РУССКОГО ЯЗЫКА В ПОЛИЭТНИЧЕСКОМ
ПРОСТРАНСТВЕ ДАГЕСТАНА**

*Gadghieva T. *, Belokurova E.***

Pskov State University, Russian Federation

e-mail: tamila.mika@gmail.com, evgenicapskov@mail.ru***

Keywords: universal language, cultural code, multiethnic space, language policy.

Ключевые слова: универсальный язык, культурный код, полиэтническое пространство, языковая политика.

Abstract. The article reveals two contradictory ideas related to the functioning of one universal language on the example of the Russian language in a multiethnic space. The peculiarities of the interaction of the Russian language and the languages of the peoples of Dagestan through borrowings are revealed. Special attention is paid to the competent language policy of the

country, aimed at the preservation and development of both the Russian language and all the languages of the peoples of Dagestan.

Аннотация. В статье раскрываются две противоречивые идеи, связанные с функционированием одного универсального языка на примере русского языка в полиэтническом пространстве. Раскрываются особенности взаимодействия русского языка и языков народов Дагестана посредством заимствований. Уделяется особое внимание грамотной языковой политике страны, направленной на сохранение и развитие как русского языка, так и всех языков народов Дагестана.

If we all spoke the same language, we would no longer have wars and conflicts. One of the well-known proponents of this idea is Dr. Zamenhof, the inventor of the Esperanto language, who really believed that most conflicts, including armed conflicts, are due to misunderstandings. However, the importance of language as a means of communication and as a factor of identity makes it a convenient propaganda tool for both escalating conflict and resolving it [1]. Another contrary idea is that each individual language has enormous global significance. And if one of the world's languages disappears due to its lack of demand, then humanity loses part of its diverse culture and identity irretrievably. That is, for mutual understanding in a multi-ethnic space, one universal language is necessary, and at the same time, sacrificing linguistic diversity for the sake of one dominant language, we can lose our identity, our cultural code. Babosov E. believes that a cultural code is mentally encoded information, a set of unique features of a people, inherited by them from their ancestors and allowing them to identify a particular culture. The cultural code of any nationality is formed over many centuries. This is influenced by many factors, ranging from climatic conditions and historical events to the economic structure and political features [2]. Thus, our main task is to overcome these contradictions. Find the best ways to solve the problem of two opposing ideas.

A striking example of overcoming these contradictions can be traced in the peculiarities of the functioning of the Russian language in the multi-ethnic space of Dagestan. The Republic of Dagestan is the most multinational region of the Russian Federation. Here, on the territory of about 50 thousand square kilometers and with a population of more than 2.5 million people, live representatives of 30 nationalities with their own languages and dialects [3]. According to Article 11 of the Constitution of Dagestan, the state languages of the republic are Russian and all the languages of the peoples of Dagestan [4]. However, only 14 languages have their own script and official status. Among them are Avar, Aghul, Azerbaijani, Dargin, Kumyk, Lak, Lezgin, Nogai, Rutul, Tabasaran, Tat, Tsakhur and Chechen languages. About 90 % of the country's population communicates in Russian, and less than a third of the total population speaks other individual state languages.

Thus, the Russian language is the main state language uniting all the peoples of Dagestan. It is considered a single national language. Ataev B.M. In his article, he notes that the Russian language has become a "republic-forming" language [3]. This is a kind of key to the universal knowledge of the country's multinational culture. The Russian language has become a second native language and a guarantor of interethnic peace and harmony. The population of the country has the opportunity to get acquainted with and exchange their own multinational culture through the Russian language. This process is two-sided, since the Russian language, in turn, is also enriched with new linguistic units. However, it should be noted that the interaction between Russian and the languages of Dagestan is not the same, since the borrowing of words by the Russian language from the languages of Dagestan is limited to the framework of local Russian speech. An example is regionalisms, which are often found in the literature of Dagestan authors translated into Russian. For example: "Godekan, Jamaat, Tamada, Burka, Beshmet, Dzhigit, Mullah, Imam, Murid, Khinkal, Naib, Pandur, Chukhta, Barakat, Namus, etc., reflect in the translated works of famous Avar writers and poets Rasul Gamzatov, Faza Aliyeva, Musa Magomedov, Adallo and others the specifics of mountain life and everyday life" [5].

In the Republic of Dagestan, the language policy is aimed at preserving and developing both the Russian language and all the languages of the peoples of Dagestan. It includes the study of Russian and native languages in educational institutions. In order to improve the quality of teaching native languages, all kinds of competitions are held to determine the best teacher of the native language, and work is also underway to provide educational organizations with educational and methodological manuals on native languages in accordance with modern requirements [6, p. 3–5]. Taking into account all these factors, it can be concluded that a competent language policy of the country contributes not only to the cohesion of all the peoples of Dagestan, but also to overcoming the contradictions associated with the use of one universal language in a multi-ethnic space. The Russian language, when used correctly, becomes a tool for the revival of other languages of Dagestan.

References

1. Henderson, E. A. Culture or Contiguity: Ethnic Conflict, the Similarity of States, and the Onset of War, 1820-1989. *The Journal of Conflict Resolution*. – 1997. – 41(5). – P. 649–668. <http://www.jstor.org/stable/174468>.
2. Бабосов, Е. Культурный код нации: сущность и особенности // *Наука и инновации*. – 2016. – № 157. URL: <https://cyberleninka.ru/article/n/kulturnyy-kod-natsii-suschnost-i-osobennosti> (дата обращения: 24.10.2023).

3. Атаев, Б. М. Русский язык и языки народов Дагестана: особенности функционирования в полиэтнической среде // МИРС. 2008. № 4. URL: <https://cyberleninka.ru/article/n/russkiy-yazyk-i-yazyki-narodov-dagestana-osobennosti-funktsionirovaniya-v-polietnicheskoy-srede-1> (дата обращения: 24.10.2023).
4. Конституция Республики Дагестан. URL: http://pravo.gov.ru/proxy/ips/?doc_itself=&infostr=xO7q8+z17fIlg7vLu4fDg5uD18vH/IO3IIIOIg7+7x6+Xk7eXpIPDI5ODq9ujo&backlink=1&nd=133014189&page=1&rdk=11#I0 (дата обращения: 24.10.2023).
5. Сулейманова, Х. Ш., Загиров, В. М. К проблеме изучения русско-дагестанских языковых контактов: история вопроса // Известия ДГПУ. Общественные и гуманитарные науки. – 2013. – №2 (23). URL: <https://cyberleninka.ru/article/n/k-probleme-izucheniya-russko-dagestanskih-yazykovyh-kontaktov-istoriya-voprosa-1> (дата обращения: 24.10.2023).
6. Государственный язык Российской Федерации и языки народов Дагестана: теория, практика, перспективы обучения : материалы Республиканской научно-практической посвящённой Международному дню родного языка. – Махачкала, 2020 – С. 3–5.

UDC 378

**SOME ASPECTS OF INNOVATIVE
PEDAGOGICAL TECHNOLOGIES FOR
PROFESSIONAL TRAINING OF TECHNICAL
UNIVERSITY STUDENTS**

**НЕКОТОРЫЕ АСПЕКТЫ ИННОВАЦИОННЫХ
ПЕДАГОГИЧЕСКИХ ТЕХНОЛОГИЙ
ПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКИ
СТУДЕНТОВ ТЕХНИЧЕСКИХ ВУЗОВ**

Izmailovich O.V.

Vitebsk State Technological University, Belarus

e-mail: izmaov@gmail.com

Keywords: information and communication technologies; digital and soft skills, foreign language teaching; multimedia technology; digitalisation.

Ключевые слова: информационно-коммуникационные технологии, профессиональные качества и способности, личные качества и возможности, коммуникативные навыки, преподавание иностранных языков, цифровизация.

Abstract. The use of information and communication technologies in teaching of foreign languages is necessary for effective learning. This article describes

some aspects of innovative pedagogical technologies of technical specialty students. Nowadays the implementation of new educational technologies in high school practice is very actual, which is due to the tendency of professional competence formation of the future specialists.

Аннотация. В данной статье рассмотрены некоторые аспекты инновационных педагогических технологий обучения студентов технических специальностей. В настоящее время внедрение новых образовательных технологий в вузовскую практику очень актуально, что обусловлено тенденцией формирования профессиональной компетентности будущих специалистов. Дана краткая характеристика и рассмотрены особенности применения некоторых информационно-коммуникационных технологий, используемых для продуктивного обучения иностранным языкам.

This article discusses the increasing demand for digital and soft skills in the workplace, and how this creates a need for innovative teaching in technical education and training. As automation and digitalisation in the workplace rapidly change job requirements, today's technical education and training teachers need to equip their students not just with technical skills, but also with strong digital and soft skills. These skills are today crucial in the workplace and essential for the use of technology. Policy makers need to highlight the importance of these skills and promote their incorporation into teaching and learning, to guarantee a smooth transition of graduates into the labour force and increase their adaptability [1].

Pedagogical approaches such as inquiry-based, project-based and collaborative learning can help develop fundamental soft skills such as critical thinking, creativity, team work and communication. These pedagogical approaches can incorporate innovative elements such as gamification, blended learning and experiential learning. Gamification in education means that educators apply game design elements to an educational setting. The goal is usually to make learning more engaging. A blended approach to English language learning is a method of delivery that combines live, teacher-led lessons (either in a conventional or in a virtual classroom) with digital learning. Experiential Learning is the process of learning by doing. By engaging students in hands-on experiences and reflection, they are better able to connect theories and knowledge learnt in the classroom to real-world situations [2]. The use of innovative technology such as robots, virtual reality (VR), augmented reality (AR) and simulators allows teachers to develop students' technical skills while also fostering their digital and soft skills. These technologies are likely to become more common in education in the years to come, as they have advantages in terms of flexibility, cost and safety. They are also well suited to facing the challenges imposed by digitalisation and industry 4.0.

The demand for digital and soft skills in the labour market is rising. Digital skills have become a fundamental part of the workplace today. The use of advanced technology in the workplace has increased in recent years for workers in all sectors and occupations, including elementary occupations that generally require lower levels of cognitive skills. For example, professionals in the logistics sector make frequent use of tablet computers and specialised software to report on, administer and control cargo; automotive mechanics use sophisticated digital devices to test the correct functioning of engines; welders in some manufacturing companies use software to manage soldering robots; and employees in high-risk environments such as power plants use simulation tools or virtual reality (VR) to assess physical risks.

Digitalisation in the workplace has also increased the need for strong basic skills (e.g. literacy, numeracy and digital skills) and soft skills (e.g. critical thinking, communication, collaboration and team work) in all industries. As robotics and automation will become more widespread, this will affect the skills needed to succeed in the workplace in all industries.

Strong soft and digital skills allow workers to be more flexible in meeting labour-market demands. In a dynamic labour market, workers are unlikely to remain in the same profession during their entire careers. As existing occupations change and new ones are created, workers will need to be flexible enough to adapt to regular job changes. Cross-cutting skills facilitate those job transitions and allow individuals to be more employable in the long term.

The three levels of digital skills: basic functional digital skills; generic digital skills; higher-level digital skills [2].

Basic functional digital skills enable an individual to access and engage with digital technologies. These are the entry-level skills required to make rudimentary use of digital devices and applications. They can be seen as the essential skills needed to access and begin to use digital technology. Users with basic digital skills are able to connect to the Internet, set up accounts and profiles, and access information and resources. These users are able to understand basic information and communications technology (ICT) concepts, adjust settings and manage files. There are a number of foundational skills that allow an individual to operate devices and implement these basic activities: psychomotor skills, basic numeracy and literacy skills.

Generic digital skills enable an individual to use digital technologies in meaningful and beneficial ways.

Higher-level digital skills enable an individual to use digital technologies to empower and transform. This includes those advanced skills that form the basis of specialist ICT occupations and professions: proficiency in programming languages, data analysis, processing and modelling skills. They include the specialist skills needed to program or develop applications. These are high-level technical skills that are not developed through everyday technology use, but are

usually result of advanced education and training, as well as extensive self-tuition and practical experience.

The necessity to have strong digital and soft skills is increasing, as automation and digitalisation become more widespread in the workplace. However, teachers do not always have the skill to teach in digital environments, and their pedagogical preparation is quite limited in many countries. As digital technologies become more prevalent, it is crucial that teachers gain the skills needed to update their practice to meet the new requirements set by employers and make the most of innovative technologies and pedagogical strategies in the classroom.

A number of emerging pedagogical approaches and technologies are available for teachers, which facilitate developing their students' digital and soft skills while teaching vocational skills. To use those teaching tools and methods, teachers need access to high quality professional development opportunities, as well as peer learning opportunities, so they can update their practice and increase their confidence in the use of technology.

Furthermore, the adoption of new technology and innovative pedagogical approaches in vocational education and training is more likely to take place when there is a shared belief among stakeholders about the importance of developing soft skills and digital skills and adopting new technology in vocational education and training. Close cooperation between vocational education and training institutions and employers can foster innovation. At the same time, governments also play a crucial role as facilitators of innovation in teaching practice, for example by investing in infrastructure and technical support.

References

1. Руденко, Т. В. Дидактические функции и возможности применения информационно-коммуникационных технологий в образовании [электронный ресурс] / Т. В. Руденко. – Томск, 2006. – Режим доступа: http://ido.tsu.ru/other_res/ep/ikt_umk/ (Дата обращения: 09.10.2023).
2. Blended Learning in English Teaching and Learning: A Review of the Current Literature. – Режим доступа: <https://www.academypublication.com/issues2/jltr/vol10/02/03.pdf/> (Дата обращения: 09.10.2023).

UDC 334.025+339.98

**ARTIFICIAL INTELLIGENCE IN MODERN
SOCIETY: ETHICAL AND SOCIAL ISSUES**

**ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ В
СОВРЕМЕННОМ ОБЩЕСТВЕ: ЭТИЧЕСКИЕ И
СОЦИАЛЬНЫЕ ПРОБЛЕМЫ**

Larina O.I. , Kharlamenkova D.A.***

State University of Management, Russian Federation

e-mail: oilarina@mail.ru , kharlamenkovadaria@gmail.com***

Ларина О.И. , Харламенкова Д.А.***

Государственный университет управления, Российская Федерация

Keywords: artificial intelligence, ethical problems of artificial intelligence, social problems, risks of artificial intelligence, digital technologies.

Ключевые слова: искусственный интеллект, этические проблемы искусственного интеллекта, социальные проблемы, риски искусственного интеллекта, цифровые технологии.

Abstract. The paper examines ethical and social issues of the use of artificial intelligence in modern society, identifies problematic areas of implementation of this technology in the field of labor market, social and economic inequality, data privacy, social isolation, legal regulation of artificial intelligence and opacity of algorithms. The article examines potential solutions and approaches to ensuring the ethical use of artificial intelligence.

Аннотация. В работе рассмотрены этические и социальные вопросы применения искусственного интеллекта в современном обществе, выявлены проблемные области внедрения данной технологии в области рынка труда, социального и экономического неравенства, конфиденциальности данных, социальной изоляции, правового регулирования искусственного интеллекта и непрозрачности алгоритмов. В статье исследованы потенциальные решения и подходы к обеспечению этического использования искусственного интеллекта.

Until recently, artificial intelligence (AI) has been a source of inspiration for science fiction authors and artists. Nowadays, futuristic ideas are giving way to real scientific research and practical results in the application of artificial intelligence in various fields. Advanced technologies are actively permeating all sectors, including manufacturing, services, education, science, and management, forming the foundation for intellectual automation, robotics, logistics, and communications [12]. The development and integration of AI into various aspects of life bring not only potential benefits but also generate certain apprehensions and negative consequences. The unprecedented advancement of AI is sparking concerns about its impact on the workforce, resulting in job loss

and increased inequality among different population groups. Questions also arise about data confidentiality and security, particularly in the context of the widespread use of machine learning algorithms that underpin AI. Thus, ethical issues related to AI deployment become a pressing matter.

Artificial intelligence, with its unique capabilities for learning and data analysis, penetrates all spheres of modern life. It has become an integral part of our everyday experience, from recommendation systems in social networks to autonomous vehicles and advisory robots. Nonetheless, as the influence of this technology continues to grow, questions arise about how AI is transforming the structure of society. According to research conducted by the World Economic Forum, nearly 75 % of surveyed companies acknowledge AI as a key driver of changes in the business and employment landscape. Contemporary technology has a dual impact on the labor market: on the one hand, artificial intelligence contributes to the creation of new jobs in the technology sector, but at the same time, it leads to workforce reduction due to automation and the integration of neural networks into production processes [13]. Based on projections by the U.S. Bureau of Labor Statistics, it is anticipated that by 2030, automation will significantly contribute to job reductions in 19 out of 30 professions, which could potentially result in higher unemployment rates and, as a result, an increase in poverty. Individuals who experience job loss because of automation will face financial difficulties resulting from decreasing wages. Additionally, there will be an increased demand for retraining to acquire new skills that align with the changing job market requirements [14]. Considering these developments, the progress and application of artificial intelligence raise important ethical and social questions in society, particularly concerning the prospects for future employment and the work environment.

In the modern world, which is becoming increasingly global and technologically advanced, interpersonal connections are diminishing, leading to an increase in loneliness. Based on a report by the European Commission, approximately 13 % of respondents have reported feeling lonely most of the time or on a constant basis [7]. In the conditions of social isolation and a lack of resources to meet the needs of vulnerable populations, artificial companion robots have been developed to provide companionship and support for people, particularly the elderly. Despite the positive aspects of this development, there are several drawbacks: the loss of human connections and depersonalization of relationships with machines can increase the sense of isolation and worsen users' psychological well-being [6]. In light of the above-mentioned dimensions, it is important to strike a balance between the benefits and risks of using companion robots to ensure their effective integration into everyday life.

Another significant aspect is related to data privacy. According to a report from the InfoWatch expert-analytical center in 2022, 667.6 million records of personal user data were lost [4]. This fact indicates insufficient protection of personal information in the online environment, thereby raising questions about

how effective the use of AI is. A growth in cases of data leaks can undermine public confidence in technology companies and AI systems. If users cannot be confident that their personal data is secure, a conscious decision to limit the use of AI in everyday life becomes inevitable. In this regard, the responsibility of companies, as well as regulatory authorities in ensuring the control and safety of information increases.

Experts note that artificial intelligent systems, originally conceived as neutral and impartial, can effectively exhibit discrimination, reproducing or even reinforcing social inequality among individuals based on factors such as race, ethnicity, age, gender, etc. [15]. For instance, due to gender-based discrimination observed in the decisions made by the Apple Card credit algorithm, male applicants were granted significantly higher credit limits than their spouses, even in cases where some women had higher credit scores [8]. In another scenario, in algorithms predicting the required volume of medical care, black patients received less treatment than white patients, even with identical diagnoses [9]. Despite the absence of explicit racial bias in the source code, the algorithm produced erroneous outcomes due to internal biases of data and learning processes. All these instances point to "algorithmic bias", a phenomenon that leads to unequal outcomes and decisions, distorting reality and potentially harming specific social groups. Algorithmic bias can arise from the lack of transparency in the algorithms' data and processes, highlighting the pressing issue of algorithm development transparency. A number of scientists believe that the nature of algorithms remains nontransparent due to the "black box" principle, the lack of clear definitions of the concept of "fairness", as well as AI training on large amounts of data without taking into account the context of the subject area [5; 11]. Such opacity can cause discontent and distrust among users and society as a whole. Customers may face an unexpected refusal of credit, and owners of autonomous cars may face unpredictable behavior of their vehicles.

In this regard, the laws and principles regulating information technology are actively being developed in various countries around the world. The European Union has developed a number of legislative acts regulating the development of digital technologies [3]. In China, a data protection law came into effect [10], and Russia has adopted Federal Law "On conducting an experiment to establish special regulation in order to create the necessary conditions for the development and implementation of artificial intelligence technologies...", aimed at creating and developing AI technologies [1]. These steps demonstrate the growing importance of regulating ethical issues in the digital sphere, as well as the commitment of various nations to safeguard the rights and interests of their citizens in the rapidly evolving technological landscape. However, many experts believe that there still exists a lack of a clear methodological foundation for legal regulation of artificial intelligence in Russia. This includes the need for the

development of comprehensive legislation and framework legal documents aimed at standardization and control in this field [2].

Thus, the development and implementation of AI technologies are important and promising achievements, but they are accompanied by certain ethical and social problems. It is important to achieve a balance between the benefits that AI can bring to our society and the negative consequences. It is critical to develop ethical standards governing the use of AI, including issues of equality, transparency, security, and confidentiality of data. Furthermore, it is important to foster public discourse and engage experts in this field to ensure that society is prepared to address the challenges posed by the advancement of AI. Equally important is the consideration of potential risks associated with the autonomy and self-learning of artificial intelligence. The ability of AI to make decisions without human involvement or control can lead to unpredictable consequences, so the implementation of AI should be accompanied by stringent security checks and responsible usage. It is necessary to be aware of the consequences related to economic and social inequality that may arise as a result of automation and the replacement of humans with AI-based robots and programs.

References

1. Федеральный закон «О проведении эксперимента по установлению специального регулирования в целях создания необходимых условий для разработки и внедрения технологий искусственного интеллекта в субъекте Российской Федерации – городе федерального значения Москве и внесении изменений в статьи 6 и 10 Федерального закона «О персональных данных»» от 24.04.2020 № 123-ФЗ // Официальный интернет-портал правовой информации. 27.04.2020 г. № 17. Ст. 2701.
2. Андреева, Г. Н. Проблемы правового регулирования искусственного интеллекта в России // Россия: тенденции и перспективы развития. – 2021. – № 16-1. – С. 501–504.
3. Асадуллина, А. В., Белоусов, В. С. Регулирование технологий искусственного интеллекта на территории Европейского Союза // Российский внешнеэкономический вестник. – 2022. – № 8. – С. 20–35.
4. Россия: утечки информации ограниченного доступа в 2022 г. // InfoWatch. URL: <https://www.infowatch.ru/sites/default/files/analytics/files/utechki-informatsii-ogranichennogo-dostupa-v-rossii-za-2022-god.pdf> (Дата обращения: 26.08.2023).
5. Харитонова, Ю. С., Савина, В. С., Паньини, Ф. Предвзятость алгоритмов искусственного интеллекта: вопросы этики и права // Вестник Пермского университета. Юридические науки. – 2021. – № 53. – С. 488–515.
6. Berridge, C., Zhou, Y., Robillard, J. M., Kaye, J. Companion robots to mitigate loneliness among older adults: Perceptions of benefit and possible

- deception // *Front. Psychol*, 2023. – Vol. 14. DOI: <https://doi.org/10.3389/fpsyg.2023.1106633>.
7. Loneliness and social connectedness: insights from a new EU-wide survey // European Commission. URL: <https://publications.jrc.ec.europa.eu/repository/handle/JRC133351> (Дата обращения: 29.08.2023).
 8. Methnani, L., Aler Tubella A., Dignum, V., Theodorou, A. Let Me Take Over: Variable Autonomy for Meaningful Human Control // *Frontiers in Artificial Intelligence*, 2021. – Vol. 4. DOI: <https://doi.org/10.3389/frai.2021.737072>.
 9. Obermeyer, Z., Powers, B., Vogeli, C., Mullainathan, S. Dissecting racial bias in an algorithm used to manage the health of populations // *Science*, 2019. – Vol. 366. – № 6464. – P. 447–453. DOI: [10.1126/science.aax2342](https://doi.org/10.1126/science.aax2342).
 10. Personal Information Protection Law of the People's Republic of China // The National People's Congress of the People's Republic of China. URL: http://en.npc.gov.cn.cdurl.cn/2021-12/29/c_694559.htm (Дата обращения: 26.08.2023).
 11. Ratti, E., Graves, M. Explainable machine learning practices: opening another black box for reliable medical AI // *AI and Ethics*, 2022. – Vol. 2. – № 4. – P. 801–814. DOI: <https://doi.org/10.1007/s43681-022-00141-z>.
 12. Saniuk, S., Grabowska, S., Straka, M. Identification of Social and Economic Expectations: Contextual Reasons for the Transformation Process of Industry 4.0 into the Industry 5.0 Concept. // *Sustainability*, 2022. – Vol. 14. – № 3. DOI: <https://doi.org/10.3390/su14031391>.
 13. The Future of Jobs Report 2023 // World Economic Forum. URL: https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf (Дата обращения: 24.08.2023).
 14. Which Jobs Will Be Automated in the Next 10 Years? // The Motley Fool. URL: <https://www.fool.com/research/which-jobs-automated-10-years/> (Дата обращения: 24.08.2023).
 15. Zajko, M. Artificial intelligence, algorithms, and social inequality: Sociological contributions to contemporary debates // *Sociology Compass*, 2022. – Vol. 16. – № 3. DOI: [10.1111/soc4.12962](https://doi.org/10.1111/soc4.12962).

UDC 811

**EUPHEMISMS AND DYSPEMISMS IN ENGLISH-
AND RUSSIAN-LANGUAGE MEDIA AS A
REFLECTION OF SOCIO-HUMANISTIC PROBLEMS**

**ЭВФЕМИЗМЫ И ДИСФЕМИЗМЫ В
АНГЛОЯЗЫЧНЫХ И РУССКОЯЗЫЧНЫХ СМИ КАК
ОТРАЖЕНИЕ СОЦИОГУМАНИСТИЧЕСКИХ
ПРОБЛЕМ СОВРЕМЕННОГО ОБЩЕСТВА**

*Maslova T.E.**, *Grigorieva E.A.***

Pskov State University, Russian Federation

*e-mail: maslovatatyana@rambler.ru**, *caterina.holmes@yandex.ru***

*Маслова Т.Е.**, *Григорьева Е.А.***

Псковский государственный университет, Российская Федерация

Keywords: euphemisms, dysphemisms, mass media, taboo word, etiquette, manipulation.

Ключевые слова: эвфемизмы, дисфемизмы, СМИ, табуированные слова, манипуляция.

Abstract. The article describes pragmatic aspects of euphemization and dysphemization in modern English and Russian-language media. Euphemisms and dysphemisms are studied as means to hide true information and in case with dysphemisms – as means of exaggerating social, cultural and political phenomenon to represent it in a less favorable view. The examples analyzed in the research give an opportunity to see a complex of socio-humanistic problems of the modern world.

Аннотация. Статья описывает прагматические особенности процессов эвфемизации и дисфемизации в современных англоязычных и русскоязычных СМИ. Эвфемизмы и дисфемизмы рассматриваются как средство реализации стратегии сокрытия правдивой информации, уклонения от истины, а в случае с дисфемизмами – в качестве средств гиперболизации определенного социального, культурного или политического явления и его подачи в менее выгодном свете. Исследуемые единицы дают возможность увидеть сложный комплекс социо-гуманистических проблем современного общества.

The world people live in today is quite a complicated and diverse system of values that take their roots in intellectual, moral and political foundations of the countries. In today's multiplex environment we observe the nations' complex and contradictory manifestation of humanistic principles of modern society development. We face nowadays a great number of socio-humanistic problems, appearing in different countries all over the globe, that are reflected in special ways in different languages. On the one hand, there is a tendency in the modern

society to veil or soften some troublesome, offensive or socially disapproved terms and phenomena. On the other hand, the principles of tolerant policy are not always followed in modern mass media and the weapon of denigrating, offending and even shocking the opponent is used quite frequently for the sake of those who present information. Thus, the focus of the current research is in studying euphemisms and dysphemisms functioning in the modern English and Russian-speaking mass media discourse.

Ch. E. Kany, an American linguist and the author of the American-Spanish Euphemisms Dictionary, defines the euphemism as «the means by which a disagreeable, offensive or fear-instilling matter is designated with an indirect or softer term» [2, V]. “Dysphemism” is a term which is opposed to “euphemism” and defined by O.S. Achmanova as «a trope consisting in substituting the natural meaning of the object in particular context by a rude and more vulgar unit» [3, 137]. The aim of both linguistic phenomena in mass media texts is to change the real information in order to show it in a more beneficial way for the sender of the information. Thus, the targeted reader faces the problem of truthfulness being given distorting information and furthermore being misled and manipulated.

In the present article we are interested in how social, political and cultural problems of the modern societies are reflected in English and Russian-language media through the processes of euphemization and dysphemization. The study investigates the euphemism and dysphemism as a tool for truth evasion in modern media discourse and its impact on the recipient. The language material was excerpted from news Internet articles published by CNN News, Daily Mail, PoliticoPRO, The Guardian, The New Yorker, The Week, The New York Times, Komsomolskaya Pravda in 2022-2023, discussing social, political and cultural issues. All the units found were classified according to several major categories, that are represented in the further part of the article.

Type 1. Euphemisms that exclude discrimination of any kind, such as race, gender, age, religion, and so on. The most common cases are when euphemisms are used to denote age, gender, race, and physical disabilities. As an example, let us turn to such euphemisms as «elderly», «mature», «senior», «pensioner» instead of «old person» in the English language. And in the Russian language instead of «старый» euphemisms are most often used: «пожилой», «человек в возрасте», «в годах» and others. The Authors of the articles resort to the use of euphemisms in order to refer to a particular group of people, avoiding offense. «Chinese court jails elderly US citizen for life on spy charge» / «Президент Путин поручил представить новые методики по оказанию помощи пожилым людям».

Type 2. Euphemisms for death and illness. In the modern world the topic of death is taboo, that is why in the Russian and English languages there is a large number of expressions replacing this word. Euphemisms «no longer with us», «no more», «lose the wind», «passed away» are used to denote «dying». In

Russian, euphemisms for the word «смерть» include «последний час», «вечный покой», «летальный исход» and others. «A good friend of mine, unfortunately no longer with us, him and I set up a soccer club» / «В Коми зарегистрирован летальный исход из-за гриппа».

Type 3 includes euphemisms denoting the influence of the state on the population. For instance, euphemisms for war, poverty, unemployment and others. The topic of poverty is an unpleasant phenomenon, so people try to hide their financial situation. That is why such euphemisms are most often used to denote «poverty» such as: «the needy», «penniless», «deprived», «low-income family» and others. «First tranche of cost-of-living payments due for low-income families tomorrow».

The following types of dysphemisms can also be distinguished. Type 1. Dysphemisms denoting «смерть», «болезнь», mental and physical disabilities. As an example, let us turn to the concept «dead», dysphemisms for which are: «annihilated», «brown bread», «bump off», «checked out», «croaked», «dead meat» and others. In the Russian language we also find many dysphemisms for the word «мертвый», for example, «дохлый», «сыгравший в ящик», «склеивший ласты», «издохший» and others. «Proposal urges wildfire fix, flatlines funding» / «Жительница Владивостока вернулась к себе домой по улице Сельская, 6 и обнаружила в квартире дохлую змею».

Type 2. Dysphemisms denoting concepts that belong to the criminal sphere. Dysphemisms of «убийства» can be such concepts as «резня», «мокруха», «заказуха», «складка» and others. The following dysphemisms may be used to refer to illegally acquired money: «dirty money», «boodle», «booty». «Резня по-приморски: житель Находки напал на посетителей кафе» / «Hundreds of millions of pounds of dirty money is being laundered via Post Office branches every year».

Type 3. Dysphemisms denoting national belonging. There are many dysphemisms of this category in both Russian and English, such as «чурка», «негр», «черный», «узкоглазый», «white-arsed», «nigger», «blackmoor» and others. «В Пятигорске трое негров «развели» бизнесмена на 190 тысяч евро» / «All niggers will be dead by 2025, president Trump claims that niggers are evil and lgbtq people are going to also be dead by 2025!».

One of the main socio-humanistic and political issues to be concerned in the modern society development is war conflicts in different parts of the world. War is a horrifying event that brings blood and death, but mass media can interpret the events according to the linguistic worldview of the society and often neutralize the real situation. The English-speaking saucers of mass media use a language of so-called «military euphemisms», which hide the truth and make the facts neutral or more terrible (if senders want to emphasize the fault of their rivals). Such dysphemisms as «occupiers», «aggression» are quite frequently used in English-speaking materials to exaggerate the situation whereas euphemisms «losses», «casualties», «conflict», «military conflict» are used to

camouflage the phenomenon that is troublesome and not in favour of the addresser.

References

1. Bloomfield, L. Language. New York: Henry Holt. – 1933.
2. Kany, Ch. E. American-Spanish Euphemisms. Univ. of California, 1960.
3. Ахманова, О. С. Словарь лингвистических терминов. – 3-е изд., стер. – М. : КомКнига, 2005. – 576 с.
4. Резанова, А. Н. Понятие о речевой норме и стандартах в контексте проблемы дисфемии в речи // Известия Российского государственного педагогического университета им. А. И. Герцена. – 2008. – №. 51. – С. 268–271.

UDC 372.881.111.11

**DEVELOPING TAILOR-MADE MATERIALS FOR
THE STUDENTS OF MANAGEMENT AND
ECONOMICS DEPARTMENT**

**ПРОБЛЕМА ОТБОРА И АДАПТАЦИИ
МАТЕРИАЛОВ ДЛЯ СТУДЕНТОВ,
ИЗУЧАЮЩИХ ЭКОНОМИКУ И МЕНЕДЖМЕНТ**

Minasyan E.T. , Goncharova V.V.***

Plekhanov Russian University of Economics, Russian Federation

e-mail: Minasyan.ET@rea.ru , Goncharova.VV@rea.ru***

Минасян Е.Т. , Гончарова В.В.***

Российский экономический университет им. Г.В. Плеханова,

Российская Федерация

Keywords: management, economics, tailor-made, intercultural communicative competence, English for Specific Purposes.

Ключевые слова: менеджмент, экономика, индивидуальный подход, межкультурная коммуникативная компетентность, английский для специальных целей.

*Abstract. English has taken over as the primary language used for worldwide communication in the age of globalization, when individuals from all over the world share information on a regular basis. As a result, there is a growing need for high-quality English language instruction, particularly for English for specific purposes (ESP), where teachers must deal with both the issues of intercultural communicative competence and the specific terminology and skills required of professional intercourse. Utilizing resources created specifically for publishing the book, *Stretch Opportunities: Skills and Language for Your Future Career*, with the co-authors (colleagues of Foreign Languages Chair 1), the following prerequisites and objectives are achieved: ESP materials design*

outlining the objectives, methods, structure and the topic coverage of the text book for the students majoring in management and economics; consider learner's processes, cognition and the target resulted in the context and language adaptation that will suit the specific needs of their future or current jobs.

Аннотация. В эпоху глобализации, когда люди со всего мира регулярно обмениваются информацией, английский язык стал основным языком международного общения. В результате растет потребность в высококачественном обучении английскому языку, особенно английскому для специальных целей (ESP), где преподавателям приходится решать как вопросы межкультурной коммуникативной компетенции, так и специфической терминологии и навыков, необходимых для профессионального общения. Используя ресурсы, созданные специально для публикации книги «Расширенные возможности: навыки и язык для вашей будущей карьеры», совместно с соавторами (коллегами кафедры иностранных языков № 1 РЭУ им. Г.В. Плеханова) достигнуты следующие предпосылки и цели: осуществить отбор материалов ESP этого учебника, (цель, методология, структура и охват тем для студентов, специализирующихся в области менеджмента и экономики); с учетом индивидуальных познавательных потребностей произвести индивидуальный отбор и адаптацию данных материалов для их будущей или текущей работы.

Over a decade ago, General English was taught to students studying for various professions, but this was not always helpful in real-life situations. Language theory developments led to the emergence of English for Specific Purposes (ESP) in the late 1960s, which has undergone rapid development. ESP can be divided into two main types: EAP (English for Academic Purposes) and EOP/EVP/VESL (English for Occupational Purposes/English for Vocational Purposes/Vocational English as a Second Language). English has become the main language of international communication, and students are taught ESP, focusing on their working environments and purpose [1,503].

ESP studies and courses are essential for various professions, focusing on language skills, structures, functions, and vocabulary needed by the target group in their professional and vocational environment. Materials selection, adaptation, and writing are critical areas in ESP teaching, providing students with knowledge they will need in their future business life. Materials should be subject-specific, focusing on a particular job or industry. It should be emphasized, however, that ESP is "not a particular kind of language or methodology," as Hutchinson and Waters [2, 19] state, but rather "an approach to language learning, which is based on learner need." and should be mixed use of general and subject-specific materials.

ESP is student-centered, and materials should be chosen based on the learners' needs, language knowledge, and target level. Students' considerations include usefulness, curiosity, relevance, and fun activities. In-house generated content is particularly beneficial as it is necessarily more accurately oriented to the needs of students than published information, as Sheerin [3, 25] points out. Tailor-made materials give students activities that meet the unique demands of their future or existing occupations. Thus, teachers should prioritize choosing and/or designing activities that will most closely mimic the learners' real-life business scenarios when deciding what tasks to include in ESP materials.

The decision on whether to use readily available textbooks or tailor-made materials is based on the learners' subject area [4, 5] Teachers often adapt commercial textbooks to the specific needs of the subject area and students' language awareness, or prepare in-house materials if no suitable printed materials are available. Tailor-made materials allow teachers to decide on combinations of vocabulary, functions, and structures, and introduce relevant vocabulary and related functions and structures.

It is important to note that the number of resources created specifically for ESP in Russian higher education institutions is rather significant. This is mostly because professors in these institutions go above and above to meet the demands of the professional language they teach. To this aim, they either modify commercial textbooks to the individual subject area's demands and the degree of students' linguistic knowledge, or they create their own materials if there are no relevant printed resources on the market.

Another motive for creating ESP teaching materials is to simply enhance an institution's or a teacher's reputation as a visible and material result of their work. Though we should keep in mind that course materials that are suitable for one ESP course could not be as effective for other ESP courses that are comparable [5, 145].

Looking back on the process of creating tailor-made course books, we saw that it had three steps: determining the course materials that were relevant, choosing the way to employ authentic texts, and then coming up with real-world tasks. The selection of topics particularly address the requirements of the students and is pertinent to the major areas of management theory such as E-commerce, building brands, innovation, employee relations, etc. Regarding the topic's authenticity, all materials were sourced from reliable, current business publications, newspapers, and company websites, for example The Economist, Harvard Business Review, The Guardian, CFO Magazine, Ted talks, etc. In addition, we can observe that using tailor-made materials for the students who major in economics and management, results in a far greater degree of satisfying students' expectations from the course. The choice of materials is first determined by the needs of the labor market, then by the requirements of the country's business environment and economical situation, and finally by the requirements and background of the student [6]. According to Haycraft [7, 127],

some of the most important considerations are as follows: the course length, target audience, useful vocabulary in current use, “visually alive” and well-presented materials.

The textbook «Stretch Opportunities: Skills and Language for Your Future Career» by V. Goncharova, E. Maslova, V. Midova, E. Minasyan represents a concrete measure of progress and achievement throughout the book, as well as a logical whole and sequence of units that enable students to see and evaluate their progress [8].

Following the same framework, each unit comprises pre-reading topic-related questions and quotes to help the student to exchange some ideas, views referring to that theme; vocabulary exercises, which give explanation or definition of some words, phrases that are either newly coined or have specific meaning in that given context; comprehension section checks the understanding of the listening part, focusing learners attention on key points and encouraging to speak out; language practice checks how cohesive and coherent students are in their written discourse, oral work with a range of business cases improves their intercommunicating, brainstorming and decision-making skills, and the last section – writing tasks, provides them an opportunity to develop their business writing.

In conclusion, it is possible to say that ESP educators should learn to write the course books tailored to the needs of particular students. No matter how excellent ESP resources are, they should allow for some flexibility as it helps both teachers and students achieve course objectives, relate closely to their specific skills and content needs, and motivate them.

References

1. Иброхимова, Л. И. Innovative methods in teaching ESP / Л. И. Иброхимова. – Текст : непосредственный // Молодой ученый. – 2017. – № 12 (146). – С. 502–504. – URL: <https://moluch.ru/archive/146/41116/> (дата обращения: 13.10.2023).
2. Hutchinson, T. and A. Waters. English for Specific Purposes. Glasgow: Cambridge University Press. – 1994.
3. Sheerin, S. Resource Books for Teachers: Self-Access. Hong Kong: Oxford University Press. – 1989.
4. Danko, O. A. Razvitiye modelnyh predstavleniy kak sredstvo integratsii uchashchihsvya v sovremennyi informazionnii sotsium: avtoreferat, Diss [Development of model ideas as a means of teaching students in a modern information society. Avtoreferat, Diss.]. Moscow, 2012. – 18 p. (in Russian).
5. Bocanegra-Valle, A. (2010). Evaluating and designing materials for the ESP classroom. In M. F. Ruiz- Garrido, J. C. Palmer- Silveira, I. Fortanet- Gomez (Eds.), English for professional and academic purposes. Amsterdam – New York: Rodopi. – 2010. – pp. 141–165.

6. Ter-Minasova, S. G. Language and Intercultural Communication. SLOVO, Moscow, 2000. – 624 p. [electronic resource] URL: <http://www.ffl.msu.ru/research/publications/ter-minasova-lang-and-icc/ter-minasova-yazik-i-mkk-BOOK.pdf> (retrieved: 08.10.23).
7. Haycraft, J. An Introduction to English Language Teaching. Malaysia: Longman Group Ltd. – 1987.
8. Stretch opportunities: skills and language for your future career / V. Goncharova, E. Maslova, V. Midova, E. Minasyan. Moscow, 2023. – 100 с.

UDC 372.881.111

**EDUCATIONAL INFORMATION AND
COMMUNICATION TECHNOLOGIES FOR
TEACHING FOREIGN LANGUAGES TO STUDENTS
MAJORING IN INFORMATION TECHNOLOGIES:
OVERVIEW AND APPLICATIONS**

**ИННОВАЦИОННЫЕ ИНФОРМАЦИОННО-
КОММУНИКАЦИОННЫЕ ТЕХНОЛОГИИ В
ПРЕПОДАВАНИИ ИНОСТРАННЫХ ЯЗЫКОВ
СТУДЕНТАМ ИТ-СПЕЦИАЛЬНОСТЕЙ: ОБЗОР И
ПРАКТИКА ИСПОЛЬЗОВАНИЯ**

Palubinski P.S.

*Belarusian State University of Informatics and Radioelectronics, Belarus
e-mail: pavel.palubinski@gmail.com*

Полубинский П.С.

*Белорусский государственный университет информатики
и радиоэлектроники, Республика Беларусь*

Keywords: foreign languages teaching, educational ICT.

Ключевые слова: обучение иностранному языку, образовательные ИКТ.

Abstract. The article presents the overview of cutting-edge educational information and communication technologies used by the lecturers of the Department of Cross-Cultural Professional Communication of the Faculty of Engineering and Economics of the Belarusian State University of Informatics and Radioelectronics for teaching foreign languages to the undergraduate students of the first stage of higher education receiving a bachelor's degree in information technologies.

Аннотация. В статье представлен обзор современных образовательных информационно-коммуникационных технологий, используемых в обучении студентов ИТ-специальностей первой ступени высшего образования (бакалавриат) иностранным языкам на кафедре

межкультурной профессиональной коммуникации инженерно-экономического факультета Белорусского государственного университета информатики и радиоэлектроники.

Up-to-date methodology outlines three models of information and communication technologies (ICT) application in teaching foreign languages.

According to the first model, ICT is integrated into a foreign language lesson and applied as required. Inquiry/response systems, multimedia training courses, electronic textbooks, simulators, control and demonstration software have become an essential part of an integrated lesson [1]. All of them are used at a particular stage of a lesson to achieve specific methodological goals and objectives: demonstration of speech samples, presentation of audio/video materials and other visuals, automation of speech skills activation and development, management of students' oral or written interaction in a foreign language, organisation of control, mutual control or self-control in the classroom.

Within the second model, a lecturer combines students' independent work with ICT and their work in the classroom without the use of computers or other devices. The lecturer can offer students to find information on the topic of the lesson on their own, using information search software (online encyclopaedias, multimedia learning portals, etc.); perform language and speech relative exercises at home; complete communication tasks in a blog, chat, on a student group page in a social network or on a wiki service (based on Web 2.0 technology) [2].

Within the third model, computer programs and web-based resources are used for distance learning of foreign languages. Learning Management Systems (LMS) are constantly being improved to create and manage web-based training courses, as well as technologies that allow lecturers to develop, store and modify the content of information resources for educational purposes (Learning Content Management Systems or LCMS) [3].

Very often lecturers of foreign languages face the challenge of effective sharing course-related materials with their students. And there are several reasons why doing that via e-mail does not seem to be the best idea. Firstly, due to a huge amount of letters sent by university lecturers to various student groups, their e-mails tend to end up in students' spam folders. So, they might not even find those letters in their inbox folder. Secondly, students receive lots of e-mails from their professors of other subjects. And if there are no subject-related filters activated, it sometimes makes it truly hard to search for the required materials dedicated to the classes of a foreign language. Thirdly, an individual student may also notice a new e-mail from a lecturer, read it and leave it without making it unread to let everyone else also notice it and get acquainted with its content. As an alternative to sending materials to students via e-mail, a Telegram-based information channel may be used by the lecturers of foreign languages. This is

a much more convenient way of not only sharing the information materials but also of notifying and reminding students of updates and news at one place.

As shown in Figure 1, an interactive web-based resource slido.com may be used by lecturers of foreign languages for visualising the results of brainstorming sessions instead of using the traditional ways of presenting the results of this teamwork format with sticky notes or posters put on a board. The resource templates may be used not only for word clouds but also for live multiple choice and open text questions, for example, as a part of warm-up activities at the beginning of a class.



Figure 1 – Templates of a Web-Based Resource Slido.com

Instead of introducing active vocabulary in a box or a list of expressions, rebuses may be used by lecturers of foreign languages to make this process more creative and non-standard. Figure 2 highlights two examples of rebuses with active vocabulary related to the topic “Computer Networks: Tracking Technologies” – ‘intrusion’ and ‘illicit’ – created on a web-based resource rebus.club which does not require any prior registration. A plethora of rebuses can be created and printed in advance or sent to students as images or documents, for example, via a Telegram-based channel of a lecturer.

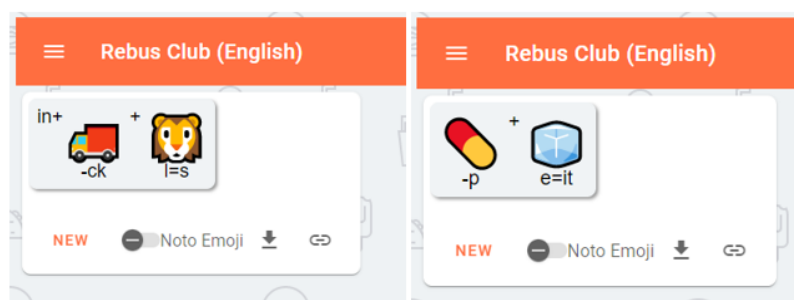


Figure 2 – Examples of Rebuses Created on a Web-Based Resource Rebus.club

A lecturer of foreign languages also faces the challenge of effective distribution of time within a lesson. As a part of the English language examinations at the Department of Cross-Cultural Professional Communication of the Faculty of Engineering and Economics of the Belarusian State University

of Informatics and Radioelectronics, students have to discuss one of the ten oral topics studied within an academic year which makes a lecturer of English assess the level of proficiency in oral examination topics and revise their content at the final classes after completing a module or section. An interactive Jeopardy game created with the help of a template based on a web-based resource jeopardylabs.com is one of the most time-effective ways to deal with this challenge.

As depicted in Figure 3, a lecturer divides students into 3 teams to play the Jeopardy game by choosing the articles-related, video-related or active vocabulary questions to answer after completing the topic “Computer Networks: Tracking Technologies”. The team that scores the most points wins.

ARTICLES-RELATED QUESTIONS	VIDEO-RELATED QUESTIONS	ACTIVE VOCABULARY QUESTIONS									
100	100	100									
200	200	200									
300	300	300									
400	400	400									
<table border="1"> <thead> <tr> <th>Team 1</th> <th>Team 2</th> <th>Team 3</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>+ -</td> <td>+ -</td> <td>+ -</td> </tr> </tbody> </table>			Team 1	Team 2	Team 3	0	0	0	+ -	+ -	+ -
Team 1	Team 2	Team 3									
0	0	0									
+ -	+ -	+ -									

Figure 3 – Jeopardy Game Created on a Web-Based Resource Jeopardylabs.com

To create crosswords, conduct surveys, current and final lexical and grammar tests on the topics covered within the course of practical classes of a foreign language, as well as to allow students to evaluate their success in the classroom, a web-based resource onlinetestpad.com is offered to replace traditional methods of assessment of the undergraduate students of the first stage of higher education receiving a bachelor’s degree in information technologies.

The above-mentioned educational information and communication technologies actively used by the lecturers of the Department of Cross-Cultural Professional Communication of the Faculty of Engineering and Economics of the Belarusian State University of Informatics and Radioelectronics for teaching foreign languages to the undergraduate students of the first stage of higher education receiving a bachelor’s degree in information technologies can also be applied by the university lecturers teaching foreign languages to both undergraduate and graduate students majoring in information technologies and other fields of study worldwide.

References

1. Harmer, J. How to Teach English / J. Harmer. – London : Pearson Education Limited, 2007. – 288 p.
2. Mayer, R. E. Multimedia Learning / R. E. Mayer. – Cambridge : Cambridge University Press, 2009. – 320 p.

3. Motteram, G. Innovations in Learning Technologies for English Language Teaching / G. Motteram. – London : British Council, 2013. – 197 p.

UDC 81

**FILM DISCOURSE AS AN OBJECT OF
LINGUISTIC RESEARCH**
**КИНОДИСКУРС КАК ОБЪЕКТ
ЛИНГВИСТИЧЕСКОГО ИССЛЕДОВАНИЯ**

Samuilova M.E., Bogatikova V.A.

Pskov State University, Russian Federation

Самуйлова М.Е., Богатикова В.А.

Псковский государственный университет, Российская Федерация

Keywords: film discourse, film text, film, future, linguistics.

Ключевые слова: кинодискурс, кинотекст, фильм, будущее, лингвистика.

Abstract. This article deals with the actual problem of film discourse research in modern linguistics. It reviews the works of scientists in this field, as well as representatives of related scientific disciplines. The prospects for future study of film discourse are also considered.

Аннотация. Данная статья посвящена актуальной проблеме исследования кинодискурса в современной лингвистике. В ней рассматриваются работы ученых в этой области, а также представителей смежных научных дисциплин. Также рассматриваются перспективы дальнейшего изучения кинодискурса.

Film discourse is one of the topical problems in modern linguistics. It represents a comprehensive study of the linguistic features inherent in cinema and the cinematographic process. The study of film discourse includes the analysis of various aspects such as vocabulary, grammar, stylistics, rhetoric, etc., which are used in cinema to convey information and create a certain atmosphere.

In recent years, many linguists and representatives of related scientific branches have shown interest in the study of film discourse. They analyze various linguistic and stylistic techniques used in cinema and study their influence on the perception of the audience. Some researchers also draw attention to the relationship between film discourse and other cultural spheres such as literature, painting and theatre.

One of the main areas of film discourse research is the analysis of lexical and grammatical features of film language. Researchers study the specific vocabulary used in cinema, such as terms related to filming, editing and special effects. They also analyze grammatical constructions used in dialogues and

monologues of characters and study how they help to create a certain image or emotional atmosphere.

Another important aspect of film discourse research is the analysis of the stylistics and rhetoric used in film. Researchers study various stylistic techniques such as the use of metaphors, comparisons and repetition and analyses their effect on the viewer. They also look at rhetorical devices such as the use of rhetorical questions, emotional expression and addressing the viewer.

In addition, researchers study the impact of film discourse on the viewer and society as a whole. They analyze how cinema influences the formation of public opinion, stereotypes and values. Studies show that film discourse can play an important role in shaping cultural identity and social dynamics.

The prospects for further study of film discourse are vast. Researchers continue to study various aspects of film discourse such as genres, scripts, acting, etc. They also apply new methods and approaches, such as corpus research and data analysis, to obtain more accurate results.

In conclusion, the study of film discourse is a topical problem in modern linguistics. It is a comprehensive study of the linguistic features inherent in cinema and its influence on the viewer and society. Further study of film discourse is of great interest to linguists and representatives of related scientific branches.

UDC 811

CONCEPTUAL REPRESENTATION IN ENGLISH AND RUSSIAN LANGUAGES CULTURES

КОНЦЕПТУАЛИЗАЦИЯ В КУЛЬТУРЕ АНГЛИЙСКОГО И РУССКОГО ЯЗЫКОВ

Stepanov D.A.

Vitebsk State Technological University, Belarus

e-mail: stepanoff.dm@gmail.com

Степанов Д.А.

Витебский государственный технологический университет,

Республика Беларусь

Keywords: concept, lexeme, peace, mass media, discourse, media text, lexical meaning.

Ключевые слова: концепт, лексема, мир, средства массовой коммуникации, медиатекст, лексическое значение.

Abstract. The study of conceptual representation in English and Russian language cultures provides intriguing insights into how different societies perceive and articulate their understanding of the world. Within the field of cognitive linguistics, this investigation involves analyzing how concepts – such

as the notion of peace – are structured and comprehended within these linguistic frameworks. Comparative studies reveal both commonalities and distinctiveness in how each language and culture verbalizes and conceptualizes ideas. These variations are influenced by historical context and cultural backgrounds. This rich diversity in conceptual representation underscores the profound interplay between language, thought, and culture, shaping how individuals within each linguistic community experience and interpret their reality.

Аннотация. Изучение концептуализации в культуре английского и русского языков дает представление о том, как разные общества воспринимают и выражают свое понимание мира. В области когнитивной лингвистики это исследование включает анализ того, как концепты, например, концепт «мир», структурируются и осмысливаются в языковых рамках. Сравнительные исследования выявляют общие черты и различия в том, как каждый язык и культура вербализуют и концептуализируют идеи. На эти вариации влияет исторический и культурный контексты. Обширное разнообразие в концептуализации подчеркивает глубокое взаимодействие между языком, мышлением и культурой, формируя картину мира, в которой каждое языковое сообщество переживает и интерпретирует свою реальность.

A series of geopolitical conflicts currently taking place forms the news agenda of both international and national mass media. Within the framework, alongside prompt coverage of events from conflict zones, publications with a thematic focus often delve into the aspect of resolving existing conflicts (including calls for their peaceful resolution, etc.). As the number of such publications grow, the media discourse of British printed media exhibits a discernible transformation of the verbal means of representing the stated topic. Notably, one of the salient features of the media texts under consideration is the increased frequency of use of the lexeme peace. The variability of its lexical and semantic aspects necessitates the analysis of the relationship between the context and meanings of this lexeme.

The study aims to identify lexical and semantic variants of the lexeme peace functioning in the analyzed media texts, to determine their dependence on the types of contexts into which they are introduced by the authors.

The analysis was carried out based on publications in British periodicals (including The Sun, The Guardian, The Telegraph, The Times) for the period October-December 2023. To ascertain the linguistic semantics of the lexical units under study, we consulted online versions the Longman Dictionary of Contemporary English, Cambridge English Dictionary and Oxford English Dictionary.

The study employed descriptive and classification methods, along with interpreting dictionary definitions and semantic-stylistic analysis.

Media text represents a complex communication phenomenon that encompasses various types and forms of texts, as well as their interaction with other sign systems. Beyond conveying information, media text shapes public opinion, values, and ideologies. While our study does not delve into an exhaustive analysis of the phenomenon itself, its classification and typology, we adopt some components from the system proposed by V.V. Zavatskaya [1]. Specifically, we consider functional-genre affiliation and thematic dominant [2].

Based on functional-genre type, media texts can be classified into the following categories: news, publications of an informational and analytical nature, journalism, advertising and announcements. The content characteristic reflects the text's alignment with the topic covered in the media, i.e. its thematic dominance (e.g., domestic politics, international relations, culture, society columns, etc.). We applied these categories when selecting materials for the analysis of the lexeme peace in British media.

Examination of dictionary entries retrieved by querying “peace” on the web pages of the dictionaries listed below shows that the lexeme peace is polysemantic, with the following lexical-semantic variants [3, 4, 5, 6]:

- 1) no war, violence (absence of war, violence);
- 2) a peace (document), treaty (peace agreement, treaty (document));
- 3) no noise, interruptions (silence, absence of noise);
- 4) calm, not worried (a feeling of peace);
- 5) friendship, harmony, no arguing (agreement, friendship, mutual understanding between people who live or work together).

The analysis conducted reveals that in news and information-analytical publications concerning military conflicts that are currently in the escalation stage, as well as events (negotiations, demonstrations, protests) related to the conflict resolution and the cessation of hostilities, the first of the noted lexical-semantic variants (no war, violence) is predominantly used. To illustrate, consider the following example: “And if we can bring together all those who want a lasting peace between Israel and the Palestinians, we may... (The Sun, December 3, 2023). The lexical-semantic variant a peace (document), treaty (Russian: ‘мирный договор, соглашение (документ)’) also implies the absence of military action and, consequently, war, which, on the one hand, indicates a direct connection with the first variant, and on the other hand, expands the context of its use. For example: “As we celebrate the return to Wales of the peace petition sent to the US in the 1920s, we should also harness its spirit of togetherness”. (The Guardian, December 30, 2023). Additionally, the second lexical-semantic variant of peace appears in legal texts, particularly in publications related to litigation (such as divorce proceedings and labor disputes). Interestingly, the frequency of its use remains stable regardless of the general information agenda and individual news items, especially when accompanied by an appropriate news hook.

Variants 3 and 4 deserve separate attention. Variant 3, associated with the meanings no noise, interruptions (Russian: ‘тишина, отсутствие шума’), commonly occurs in obituaries. Variant 4, signifying calm, not worried (Russian ‘чувство покоя’), is used as an adjective (or its word form “peaceful”) in advertisements for housing sales or rentals, tourist trips, vacation spots, and similar contexts. It should also be noted here that in this context the frequency of use remains stable regardless of the general information agenda and individual news items. An example from an article Lapland is Cracking Christmas Trip about a trip to Finland reads: “The only thing to disturb the peace and quiet which surrounded us were the excited squeals coming from my kids...” (The Sun, November 25, 2023).

Finally, variant 5 encompasses two subgroups: friendship, harmony, no arguing (Russian equivalent: ‘взаимопонимание, дружба, согласие’). In the meaning of the first subgroup, peace prevails in journalistic texts of the so-called society column in the context particularly discussing interpersonal or family relationships. The second subgroup of meanings appears predominantly in information and analytical articles related to the general topic of "Business", covering labor and corporate relations, management methods, business ethics.

Thus, the conducted analysis demonstrates that the lexical and semantic variants of the lexeme peace are distributed as follows: variant 1 (no war, violence) accounts for about 50% of cases of use; variant 2 (a peace (document), treaty) and variant 5 (friendship, harmony, no arguing) are distributed equally, approximately 15% each; variants 3 and 4 (no noise, interruptions, calm, not worried) constitute approximately 20 %, with obituaries representing about 5% of this usage.

In our opinion, this distribution primarily reflects the priorities of the British media. Specifically, there is a greater emphasis on covering events in international and domestic politics (as seen in The Guardian, The Telegraph, The Times), where the lexeme peace predominantly conveys the meaning of “no war, violence” (and less frequently, “a peace (document), treaty”). Conversely, local events and interpersonal relations (as observed in The Sun and The Telegraph) utilize this lexeme to express meanings related to “no noise, interruptions,” “calm,” and “not worried” (including silence, absence of noise, agreement, friendship, and mutual understanding among people).

References

1. Завацкая, В. В. К определению понятия медиатекст / В. В. Завацкая // Лингвистика, лингводидактика, лингвокультурология: актуальные вопросы и перспективы развития : материалы IV Междунар. науч.-практ. конф / БГУ ; редкол.: О. Г. Прохоренко (отв. ред.) [и др.]. – Минск, 2020. – С. 92–95.
2. Солганик, Г. Я. Стилистика текста / Г. Я. Солганик. – М., 2003. – С. 88–89.

3. Сулова, С. С. Концепт мир в английской языковой картине мира / С. С. Сулова, Ю. В. Зайцева // Вестник ВятГУ / Вятк. гос. гум. ун-т ; редкол.: В. Н. Пугач [и др.]. – Киров, 2016. – №4 – С. 58–63.
4. Cambridge English Dictionary [Электронный ресурс]. – Режим доступа: <https://dictionary.cambridge.org/dictionary/english/peace>. – Дата доступа: 25.01.2024.
5. Oxford English Dictionary [Электронный ресурс]. – Режим доступа: https://www.oed.com/dictionary/peace_n?tab=meaning_and_use&tl=true. – Дата доступа: 25.01.2024.
6. Longman Dictionary of Contemporary English [Электронный ресурс]. – Режим доступа: <https://www.ldoceonline.com/dictionary>. – Дата доступа: 25.01.2024.

UDC 372.881.111.1

**THE SIGNIFICANCE OF LOCAL COUNTRY
STUDIES MATERIALS IN TEACHING A
FOREIGN LANGUAGE AT THE LEVEL OF
SECONDARY EDUCATION**

**НЕОБХОДИМОСТЬ ИСПОЛЬЗОВАНИЯ
ЛИНГВОКРАЕВЕДЧЕСКИХ МАТЕРИАЛОВ В
ОБУЧЕНИИ ИНОСТРАННОМУ ЯЗЫКУ НА
УРОВНЕ ОСНОВНОГО ОБЩЕГО
ОБРАЗОВАНИЯ**

Vasileva M.N.

Pskov State University, Russian Federation

e-mail: marina32a@mail.ru

Keywords: local country studies materials, secondary education.

Ключевые слова: местное страноведение, лингвокраеведческие материалы, основное общее образование.

Abstract. The article examines the significance of local country study in teaching a foreign language at the secondary school level. It reveals the research how to educate students about the Pskov region through the use of selected readings in English. If implemented texts would serve a useful function in helping students develop expressions and vocabulary to discuss their own region. This is often lacking in language programs as many language books focus on the countries where the language is spoken. However, at the intermediate levels of language development, using language to discuss familiar topics helps students acquire language features more easily.

Аннотация. В статье рассматривается необходимость использования материалов по местному страноведению в обучении английскому языку

на уровне основного общего образования. Основанием для изучения данной проблемы является недостаток в современных учебно-методических комплексах материалов лингвокраеведческой направленности. На примере разработанного пособия о Псковской области будет проиллюстрирован потенциал страноведческой деятельности как комплексное средство обучения и воспитания школьников.

According to the new Foreign Language State Standard, the obligatory minimum content of the main educational programs includes socio-cultural knowledge and skills. The formation of socio-cultural knowledge and skills means expanding the volume of regional knowledge due to new topics and issues of speech communication, taking into account the specifics of the chosen profile, deepening knowledge about the country or countries of the language being studied, their science and culture, historical and modern realities, public figures, the place of these countries in world society, world culture, relations with our country [8].

The term “local country studies” includes two concepts at once: “regional studies” and “local history”. In a narrow sense, country studies as a science deal with the study of different countries and regions as the main units of the political, economic and socio-cultural differentiation of the globe, their complex characteristics having a socio-natural orientation. While local history studies the nature, population, economy, history and culture of any part of the country, administrative or natural area.

The choice of the definition of “local country studies” is due to the fact that in order to carry out a direct dialogue of cultures, students need not only to get acquainted with the culture of the country of the language being studied, its history, customs, traditions and modern life, but also to compare it with the cultural values of their country, their region, their small homeland, which contributes to the formation of socio-cultural competence of students. At the same time, the study of regional studies forms not just socio-cultural, but also regional competence.

Country-specific competence is often considered as a component of socio-cultural competence. Some methodologists define this competence as: a set of knowledge about the country of the language being studied. The presence of such knowledge provides a certain level of skills and abilities to use the national-cultural component of language, speech etiquette and non-verbal means of communication for communication purposes [1, p. 204].

Russian researchers do not deny the acquisition of knowledge about the country of the language being studied, but also prove the need to study their native culture by using country-specific materials. According to E.G. Tareva: “There is an erroneous appropriation by students of the idea of uniqueness, of the culture being mastered, since there is a centralization of educational efforts on the culture of the country of the language being studied. Students don’t need

to turn into representatives of a different society according to their mentality and worldview” [7, p. 16].

This statement can be confirmed by a number of negative trends, which include the following provisions:

1. simplification and schematization of the process of formation of foreign language socio-cultural competence among students;
2. exaggeration of the role and importance of the culture of the country of the studied language;
3. the introduction into educational practice of methods and technologies that provide for their hidden removal from their national culture in the process of mastering the culture of the country of the language being studied by students [2, p. 163].

Based on the above, the task of the foreign language teachers in different education institutions is to create an educational situation in which a genuine equality of cultural givens is ensured, interacting and complementing each other, but at the same time not protruding the advantages of one to the detriment of the other. Moreover, the study of local regional studies increases the internal motivation to study English, as students get acquainted with the facts of culture previously unknown, which is confirmed by the research of the American psychologist L. Jacobowitz, who proved that successful promotion in a foreign language depends on motivation for all 50 % [5, p. 93].

Obviously, the study of regional studies is necessary at all levels of education and training. However, the main attention should be paid to the main school, since it forms the abstract thinking of schoolchildren, which allows them to see all the phenomena of life at the same time, in their deep interrelation.

In order to obtain more detailed specifics, the educational and methodological complexes used in Russian schools in the English language and some country-specific manuals in English have been analyzed. The analysis revealed that there is a significant number of materials of a country-specific nature, in particular, information from the history, culture, geography of the countries of the languages studied. There is no doubt that it is impossible to include country-specific materials on all subjects of the Russian Federation in the student`s books. Nevertheless, the priority is to teach the student to speak in English about what surrounds him, what is close and dear to him since childhood, what he is proud and ready to share with his potential partner in intercultural communication, and therefore there is a need to use additional materials on local country studies.

In many regions of the country, the practice of introducing country-specific materials into the process of teaching English has become common (for example, in the Republic of Bashkortostan [4], in the Urals [6]). In the libraries of Pskov, there are works on local regional studies in Russian, but they contain, to a greater extent, information about the city, but not about the region [3].

To this end, a draft guide on country studies “Some Ways of Learning about Pskov and The Pskov Region” was developed, which includes information about the geographical features of the Pskov region, as well as about 14 cities and 14 urban-type settlements of the Pskov region. Such a project is designed for an elective course in a primary school.

The manual is recommended to be used as an additional material when learning English in the framework of federal training courses, because:

1) the developed elective course provides interdisciplinary links between the English language and history, geography, cultural studies;

2) the developed model of educational tasks contributes to the development of general academic skills, forms regional competence, fosters a sense of patriotism and pride in the native land;

3) texts and exercises introduce students to the geographical and cultural features of the Pskov region, historical facts and famous personalities who lived in the region;

4) with the help of texts and exercises, students train the ability to speak and talk about the sights and interesting features of their native land;

5) the structure of the manual allows you to improve reading, speaking, writing skills. For example: the heading “Stop and think!” contains a number of tasks that help develop various types of speech activity.

The materials of the textbook “Some Ways of Learning about Pskov and The Pskov Region” were tested in schools of the Pskov region (in Velikiye Luki, Sebez, Chikhachevo village (Bezhanitsky district), Kachanovo village (Palkinsky district)). The survey of students revealed an improvement in knowledge about their native land. The conversation with the teachers demonstrated that the students actively participated in the lesson, their knowledge of regional studies improved and their interest in further education of their homeland increased.

References

1. Азимов, Э. Г., Щукин, А. Н. Новый словарь методических терминов и понятий / Э. Г. Азимов, А. Н. Щукин. – М., 2009. – С. 204.
2. Барышников, Н. В. Формирование иноязычной социокультурной компетенции у обучающихся в условиях невидимого ими мира изучаемого языка / Н. В. Барышников. – Пятигорск, 2016.
3. Васильева, Ю. А. STUDY THE UNIQUE LAND / Ю. А. Васильева. – Псков, 2007.
4. Галлямова, Н. Ш. и др. Моя Башкирия / Н. Ш. Галлямова и др. – Уфа, 2018.
5. Ерчак, Н. Т. Иностранные языки: психология усвоения / Н. Т. Ерчак. – Минск, 2019.
6. Ставроти, Б. В., Засыпкина, Ф. Н. и др. Урал / TheUrals // Б. В. Ставроти, Ф. Н. Засыпкина и др. – Обнинск, 2007.

7. Тарева, Е. Г. Обучение межкультурному диалогу как инструмент «мягкой силы» / Е. Г. Тарева. – М., 2016.
8. Федеральный государственный образовательный стандарт основного общего образования [Электронный ресурс] // Федеральные государственные образовательные стандарты. URL: <https://fgos.ru/#> (дата обращения: 17.10.2023).

UDC 376

**ABOUT THE FEATURES OF TEACHING A
FOREIGN LANGUAGE OF THE SILVER AGE
REPRESENTATIVES WITHIN THE CONCEPT OF
LIFELONG EDUCATION**

**ОБ ОСОБЕННОСТЯХ ОБУЧЕНИЯ
ИНОСТРАННОМУ ЯЗЫКУ ПРЕДСТАВИТЕЛЕЙ
СЕРЕБРЯНОГО ВОЗРАСТА В РАМКАХ
КОНЦЕПЦИИ НЕПРЕРЫВНОГО ОБРАЗОВАНИЯ**

Yakovleva S.V.

Pskov State University, Russian Federation

e-mail: atevsa@inbox.ru

Яковлева С.В.

Псковский государственный университет, Российская Федерация

Keywords: lifelong education, silver age, participatory approach, the principle of the subject of activity, the principle of life activity, the principle of potential and actual, the principle of feedback, teaching a foreign language, classification of exercises.

Ключевые слова: непрерывное образование, серебряный возраст, партисипативный подход, принцип субъекта деятельности, принцип жизнедеятельности, принцип потенциального и актуального, принцип обратной связи, обучение иностранному языку, классификация упражнений.

Abstract. For many countries today, the process of population aging is relevant, which affects the implementation of domestic government policies. The idea of training representatives of the silver age is considered in the context of the concept of lifelong education. The article outlines the goals, objectives and principles of teaching representatives of the silver age within the framework of foreign language classes, and presents an approximate classification of exercises for mastering grammatical skills.

Аннотация. Для многих стран сегодня актуален процесс старения населения, что влияет на реализацию внутренней государственной политики. Идея обучения представителей серебряного возраста

рассматривается в контексте концепции непрерывного образования. В статье обозначены цели, задачи и принципы обучения представителей серебряного возраста в рамках занятий по иностранному языку, представлена примерная классификация упражнений для освоения грамматических навыков.

For many countries today, the process of population aging is relevant, which affects the implementation of domestic government policies. The idea of training representatives of the silver age is considered in the context of the concept of lifelong education. The article outlines the goals, objectives and principles of teaching representatives of the silver age within the framework of foreign language classes, and presents an approximate classification of exercises for mastering grammatical skills.

In this work, we use the concept of “persons of the silver age”, speaking about those whose age is 55 years and older. After fifty years, a person’s life gradually begins to change, because... not only the physiological processes of aging of the body are launched, but also a reassessment of the life lived by a person occurs. For many older citizens, cessation or limitation of work has painful consequences: loss of professional contacts, decrease in physical activity, health problems, loneliness and much more, which leads to a decrease in the quality of life, depression, and, as a rule, an acceleration of the aging process and decline life expectancy.

Many countries have developed and are implementing a model aimed at developing the concept of active aging in society and supporting lifelong education, which is called the “University of the Silver Age.” The social project program allows people of silver age to make maximum use of their body’s resources to improve well-being, spend interesting leisure time, extend their education and active longevity.

Psychologist B.G. Ananyev noted that “the development of intelligence, the ability to learn, and the constant education of an adult is a huge force that resists involutionary processes” [1]. Therefore, the main goal of the “University of the Silver Age” project is to create the necessary conditions and opportunities for the development of activity of an elderly person.

It is known that P. Laslett actively promoted the idea of education for people of the third age in the media. Education at this age solves the problem of loneliness, helps older people to successfully accept a new social role, and the learning process has a positive effect on the functioning of the body as a whole, in particular the functioning of the brain, providing prevention against diseases associated with age-related characteristics of the functioning of the human body [7].

The social and educational project “University of the Silver Age” is also being implemented in the Russian Federation. Pskov State University also actively

interacts within the framework of social projects with the University of the city's Silver Age.

The goal of jointly implemented projects is to improve the quality of life and social activity of older citizens. The tasks include: creating favorable conditions for the successful adaptation of older people in modern life, for self-education and self-improvement; activating creative potential and maintaining a positive attitude towards life; increasing the level of communication skills of older people; formation and development of the communication environment; organizing free time for older people.

The idea of lifelong education arose in the 20th century, but its origins can be found in the times of ancient philosophers. It is believed that the term "lifelong education" was first used in 1968 in the proceedings of the UNESCO General Conference [5]. Currently, the idea of lifelong education is becoming the dominant vector of educational reforms.

The concept of "continuing education" can be interpreted in different ways, but it seems that the definition of A.M. Novikova describes the meaning of this term as accurately as possible – "one of the leading modern ideas for the development of education as a transition from the construct "education for life" to the construct "education throughout life." Continuing education involves a connection between the content being studied and various aspects of human development at all stages of life; the ability to assimilate new achievements of scientific, cultural and social progress; improving learning skills, stimulating motivation to study; implementation of creative and innovative approaches, emphasis on self-education" [4].

Scientists emphasize that in the new educational paradigm, the psychophysiological characteristics of students must be taken into account; it is important to take into account the following psychophysiological changes: slower reactions with faster fatigue, deterioration in the ability to perceive, narrowing the field of attention, reducing the duration of concentration, difficulties in distributing and switching attention, decreased ability to concentrate and concentration of attention, increased sensitivity to extraneous interference, a slight decrease in memory capabilities, a weakening tendency towards "automatic" organization of what is remembered, difficulties in reproduction [2].

Pskov State University interacts with the University of the Silver Age within the framework of annual social projects, implementing language workshops.

The importance of language in the life of a person and society, the functions that it bears, is a very important aspect of the existence of society. Through language, people express their thoughts and emotions. The words of outstanding people are quoted and transformed from personal property into human property, creating the spiritual wealth of society. Language as a whole is the embodiment of our thoughts that are born in the heart. Speech in a person determines many

things: his mind, culture, level of education, attitude towards people, and through language in society the connection of generations is carried out.

A foreign language is not just a training program for the older generation, but a bridge of mutual understanding and support. The continuing education program helps to see in the “third age” one of the means of solving the most important existential problem – preserving the meaning of life in a period when it becomes not entirely clear, elusive; preserve mental tension as a manifestation of activity, which remains when its other types are gradually fading away, get new mentors in the person of young people who are ready to provide their support to the older generation.

Modern researchers of the problems of teaching representatives of the silver age emphasize the special importance of the participatory approach to constructing education, which includes the principle of the subject of activity, the principle of life activity, the principle of potential and actual, the principle of modeling, the principle of optimality, and the principle of feedback. The participatory approach is based on the principles of three sciences, the subject of study of which is the adult: acmeology, andragogy and gerontology.

The principle of the subject of activity in acmeology is that the personality is considered as developing and functioning. In a participatory approach, content is based on social context. What happens in class should be related to the student’s daily life. He improves his knowledge through four types of speech activities (reading, writing, listening, speaking). Topics: from home management to safety, social factors and the possibilities of changing them.

The principle of life activity allows us to emphasize the idea of the individual as a subject of life activity, which allows us to see the place, role, meaning and significance of activity, labor in the life path of the individual. The goal is the action taken. The skills acquired during training serve to change these conditions. And they are not separate goals.

The principle of potential and actual allows us to consider personality as a projective, promising system. It serves in two directions: 1) it focuses on the reserve, the capabilities of the individual, which can be realized in the future by herself or with her acmeological support; 2) suggests using projective rather than ascertaining procedures when diagnosing the current state of a person. Translated to a participatory approach, this means emphasizing the strengths, exploration, exploration and empowerment of participants.

Modeling principle. The participatory approach involves modeling communication situations that are relevant for students, reflecting their aspirations, and the main goal is aimed at changing the surrounding reality (rather than adapting to circumstances).

The principle of optimality. The principle of optimality allows you to choose the right behavior in a team, to choose the right combination of the principles of a differentiated approach and unity of requirements. The content and learning

process help students understand their own capabilities. Social relations in the classroom serve as a prototype for relations outside it, i.e. help optimize.

The reverse principle in the participatory approach is implemented in the process of communication, since personal experience is inextricably linked with the discussion of certain situations. Participants view their problems in the light of the experiences of others. A joint discussion depersonalizes the problem and is a signal to action.

Successful foreign language learning for older adults involves the learning environment, teaching methods, and motivation. The learning environment must compensate for potential sensory disruption. Teaching methods must incorporate real-life experiences as well as provide relevant content. It is important to develop both receptive skills (listening, reading) and productive skills (speaking and writing). Older students prefer a slower pace of learning, avoid competition, and value a friendly and pleasant atmosphere in the classroom.

As many recent studies have shown, learning a foreign language appears to be an effective tool for improving the overall well-being of older adults, bringing them a subjective sense of happiness, satisfaction and positive motivation, and thus positively affecting their mental health and enhancing their social networks.

The experience of implementing language workshops within the framework of social joint projects with the University of the Silver Age allowed us to develop a classification of exemplary language exercises. We highlight language exercises for: differentiation, for example, “Listen to word combinations, raise your hand when you hear a combination with the grammatical phenomenon/word being studied”; concentration, for example, “Listen looking at the pictures and say what was not mentioned”; – attention span, for example, “Remember the phrases on the cards, (ask to turn away, remove 1–2 cards) tell me which cards have disappeared”; working memory capacity, for example, “Name the actions in the order in which they were demonstrated; generalization, for example, “Choose those words that you can use in combination Ich kann ... benutzen (ein Handy, einen Computer); abstraction, for example, “Number the word order in the sentence: . I show a number, and you name what could stand in this place, for example, Morgen (1) mit den Enkeln (4) ich (3) ins Kino (5) gehe (2).

Older people experience a natural decline in cognitive function. Learning a foreign language is an effective transformative preventive means of compensating for declining functions. However, when learning a foreign language, students of the silver age group need special conditions to activate these functions. We have given a classification of approximate exercises to activate attention, memory and thinking. The problem of teaching a foreign language of the silver age representatives has not yet been studied enough at present and, of course, needs further research and the development of methodological and methodical tools.

References

1. Ананьев, Б. Г. Основы современного человекознания / Б. Г. Ананьев. – Издательство «Наука», 1977.
2. Комаровская, Е. П. и др. Геронтологическое образование в Российской Федерации в системе непрерывного образования / Е. П. Комаровская и др. // Известия ВГПУ. – 2018. – С. 11–12.
3. Лапп, Д. Улучшаем память – в любом возрасте / Д. Лапп. – М. – 1993. – С. 119 –237.
4. Новиков, А. М. Педагогика: словарь системы основных понятий / А. М. Новиков. – М. : Издательский центр ИЭТ, 2013. – 268 с.
5. Формирование общества, основанного на знаниях. Новые задачи высшей школы. Доклад Всемирного банка. – М. : Весь мир, 2003.
6. Непрерывное образование и потребность в нем / Отв. ред. Г. А. Ключарев // М. : Наука. – 2005.
7. Laslett, P. A Fresh Map of Life: the Emergence of the Third Age / P. Laslett. – London, 1990.
8. Laslett, P. What is Old Age? Variation over the Time and between Cultures. In: G. Caselli and A. Lopez (eds.), Health and Mortality among Elderly Populations. – Oxford, 1996.

UDC 811.16

**FEATURES OF REPRESENTATION OF THE
GERMAN IN WORKS OF RUSSIAN LITERATURE
OF THE 18th-20th centuries**

**ОСОБЕННОСТИ РЕПРЕЗЕНТАЦИИ НЕМЦА В
ПРОИЗВЕДЕНИЯХ РУССКОЙ
ХУДОЖЕСТВЕННОЙ ЛИТЕРАТУРЫ XVIII–XX вв.**

Yakovleva S.V.

Pskov State University, Russian Federation

e-mail: atevsa@inbox.ru

Яковлева С.В.

Псковский государственный университет, Российская Федерация

Keywords: image, national image, artistic image, representation of the German in Russian literary, speech portrait, artistic detail.

Ключевые слова: образ, национальный образ, художественный образ, репрезентация немца в русской художественной литературе, речевой портрет, художественная деталь.

Abstract. The influence of representatives of the German state on Russian science, painting, and architecture is undeniable, but one of the most interesting aspects to study is literature. Literature is the voice of the people, artistically

reflecting the moods of people, their opinions and attitudes towards representatives of other cultures, relevant at all times, especially before the advent of radio and television broadcasting technologies. The image of a German in the historical and cultural context of Russia has undergone great transformations. The article discusses approaches to defining an image, its component composition, and analyzes the representation of a German based on an analysis of Russian literary works of the 18th–20th centuries.

Аннотация. Влияние представителей немецкого государства на русскую науку, живопись, архитектуру неоспоримо, но одним из интереснейших аспектов для изучения является литература. Литература – это голос народа, художественно отображающий настроения людей, их мнения и отношения к представителям других культур, актуальный во все времена, особенно до появления технологий радио- и телевидения. Образ немца в историко-культурном контексте России претерпел большие трансформации. В статье рассматриваются подходы к определению образа, его компонентный состав, анализируется репрезентация немца на основе анализа произведений русской художественной литературы XVIII–XX вв.

An image from the point of view of the humanities, including the main branches of philology, such as linguistics and literary criticism, is the result of the reflection of facts, individual objects, events by the human consciousness in a sensually perceived form [2]. Within the framework of philological sciences, “image” is narrowed to the concept of “artistic image” with a different semantic content [4].

The structure of a character's image has a complex nature and is implemented differently in each literary work. There is no uniform idea about the components that make up an image in science, but scientists such as M.M. Bakhtin, V.A. Kukhareno, L.A. Yurkin distinguishes the following components of the image: 1) verbal portrait; 2) speech portrait; 3) psychological portrait; 4) space-time continuum (the surrounding world); 5) character name; 6) artistic detail.

Thus, we can conclude that the image is a multi-level, complex concept, the uniform definition of which is absent in science, since the “image” is at the intersection of several areas of science, such as linguistics, psychology, philosophy, literary criticism, etc. The artistic image is formed in within the framework of an artistic text, is a form of reflection of reality created by the embodiment of the author’s creative potential, his subjective view of the world using various kinds of stylistic devices to more vividly present the image to the reader.

The object of study in order to analyze the features of the representation of the image of a German were works of Russian fiction of the 18th – 20th centuries. Let's give just a few examples.

1) The image of a German in the 18th century (based on the works of D.I. Fonvizin “Collected Works. Volume Two” and A.N. Tolstoy “Peter the Great”).

Тридцатого пробывли мы в Кенигсберге. Я осматривал город, в который от роду моего приезжаю в четвертый раз. Хотя я ими никогда не прельщался, однако в нынешний приезд показался он мне еще мрачнее. Улицы узкие, дома высокие, набиты немцами, у которых рожи по аршину [10, с. 505].

In this example, the author describes his hero's impressions of visiting a German city, giving them a personal touch by introducing epithets with negative connotations.

Вечеру, в девять часов, при самом въезде нашем в городок Фридланд, передняя ось пополам. Нельзя себе представить ни нашей горестной досады, ни того усердия, с которым подана была нам помощь от жителей [10, с. 505].

This example conveys the image of the Germans as diligent people, ready to help in a difficult situation. Despite the character's described frustration regarding the situation in which he found himself, he demonstrates gratitude for the timely assistance provided.

Колеса шуршали по песку. Приветливый свет из окошек небольших домов падал на низенькие ограды, на подстриженные деревца, на стеклянные шары, стоявшие на столбах среди песчаных дорожек. В огородах перед домиками белели и чудно пахли цветы. Кое-где на лавках и на крылечках сидели немцы в вязаных колпаках, держали длинные трубки [9, с. 30].

«Мать честная, вот живут чисто», – подумал Алексашка, вертя головой сзади кареты [9, с. 30].

Through the character's surprised exclamation, one can assume that for him, as a representative of Russian culture and Russia in particular, such a picture on the streets and in the courtyards of his native country is not typical, so German neatness extremely amazes him.

Из Пушкарского приказа доставили шестнадцать пушек, и тогда стали учить потешных стрелять чугунными бомбами, – учили строго: Федор Зоммер даром жалованье получать не хотел [9, с. 40].

In this passage, the German is described as a man true to his word and deed, for whom it is important to complete the work entrusted to him, for which he is entitled to a salary.

Based on the designated components of the image in the work of the 18th century, we can conclude that a German of this period is represented as a respectable, diligent, hospitable person who treats his business and work with love and responsibility. Based on the historical context, one can also notice distinctive features in the appearance (especially the choice of clothing or the habit of shaving) of the German heroes in the works. The personal relationships

of the authors refer us to the artistic details of the images depicting the life of the Germans, which is unfamiliar and incomprehensible to the Russian people.

2) The image of a German in the 19th century (based on the work of F.M. Dostoevsky “Demons”)

Пред ним стоял безукоризненно одетый молодой человек, с удивительно отделанными бакенбардами рыжеватого отлива, с пенсне, в лакированных сапогах, в самых свежих перчатках, в широком шармеровском пальто и с портфелем под мышкой [7, с. 161].

In this passage, the author describes a German character who is characterized by sophistication and pedantry, especially regarding appearance. Through the prism of the character, the attitude and love of the order and neatness of the Germans can be traced.

На некоторые жалобы и запросы положено было систематически не отвечать. Все это обнаружилось впоследствии. Лембке не только всё подписывал, но даже и не обсуждал вопроса о мере участия своей супруги в исполнении его собственных обязанностей [7, с. 178].

In this example, the author illustrates the image of a German as a person faithful to his work, for whom negligence in relation to the work performed is unacceptable.

Based on the presented excerpts, we can conclude that the typical image of a German of the 19th century. not very different from the typical image of an 18th century German. He is also a hospitable, responsive, neat, pedantic, and faithful person. In the works of this period, authors more often compare the image of a German with the image of a Russian person, drawing differences in the lifestyle and character of the two nations through the artistic incarnations of the heroes.

3) The image of a German in the 20th century (based on the work of A. Platonov “Spiritualized People”)

С криком ярости он ворвался в окоп, в убежище врага, увидел там серое лицо неизвестного зловоние и сразил врага прикладом в лоб, чтобы он не убивал нас больше и не мучил наш народ страхом смерти [8, с. 1].

In this passage, based on the repeated repetition of “enemy,” one can draw a conclusion about the historical context and the author’s personal attitude towards the German, who has lost his personal characteristics, transforming into an “enemy” or “evil” that has spread to the entire nation.

The author, through metaphorical turns and epithets with negative connotations, enhances the emotional effect in the reader, designed to evoke negative emotions regarding the Germans.

Representation of the German during the second half of the 20th century. underwent the greatest changes based on the historical context of the war.

Based on the study of individual images of characters and the reality surrounding them using the example of the works of D.I. Fonvizin “Collected Works. Volume two”, F.M. Dostoevsky “Demons”, A.N. Tolstoy “Peter the Great” and A. Platonov “Spiritualized People”, the following components of the

image were analyzed: verbal portrait, speech portrait, psychological portrait, space-time continuum, character name, artistic detail.

The psychological portrait and the space-time continuum turned out to be dominant, which are assigned the functions of greatest impact

The work of D.I. Fonvizin "Collected Works. Volume two," written in the 18th century. is a collection of everyday sketches in which the components of a person's image are aimed at creating a collective image of a typical German. Their analysis showed the following:

1) The psychological portrait is presented quite fully and demonstrates to the reader the following typical German signs: accuracy, readiness to come to the rescue, everyday pedantry, versatility, demonstrated by comparing learned people, knowledgeable in arithmetic sciences and completely simple, down-to-earth, far from learned.

2) The verbal portrait was not presented as such; greater emphasis in the work was placed on the collective psychological image of the Germans, which attracted the hero and the reader more than the external dissimilarity of the two cultures.

3) The author added artistic details to the life and behavior of the Germans, which were unusual for Russian people, and therefore evoked a certain emotional response, complementing the collective image.

In the novel by F.M. Dostoevsky's "Demons", written in the 19th century, the components of the image are largely aimed at creating a psychological portrait of the character. Their analysis showed the following:

1) The verbal portrait is presented very sparingly, used to emphasize the social status of the hero, betraying his German typicality due to the use of epithets that refer us to the elegance and scrupulous neatness of the character.

2) The psychological portrait is presented fully and collects the inherent qualities of the Germans, which are embodied in the personal behavior of the character. Through him, the author showed, albeit unconsciously, the cohesion and mutual support of Russian Germans, and through the character of von Lebke, such qualities often attributed to Germans as modesty, dedication to work/cause, scrupulousness, pedantry, etc. found a way out.

3) The artistic detail emphasized the characteristic feature of illiteracy regarding their own language among Germans living far from their homeland.

A. Platonov's story "Spiritualized People" is wartime prose, the component composition of the image of which represents a psychological portrait.

1) The psychological portrait in this work is reduced to a collective impersonal image of a German, who is no longer endowed with any known typical traits, except exclusively negative ones. This component is strengthened under the influence of stylistic devices selected by the author, which influence the reader's emotional assessment. A major role in the interpretation of the image of the German in this work was played by the personality of the author and his personal attitude, coupled with the historical context of this work.

In the novel by A.N. Tolstoy “Peter the Great”, written in the 20th century. about the events of the 18th century, the components of the image are largely aimed at creating a psychological portrait of a German character. Their analysis showed the following:

1) The verbal image is not presented as voluminously, but the purpose of its appearance in this novel is to compare the appearance and style of clothing typical of Germans in the 18th century, which strongly contrasts with the clothing of Russian society.

2) The psychological portrait contains a chain of characteristic behavioral habits of Germans, which is reflected in the description of the characters’ character.

3) The space-time continuum is one of the most fully represented components, demonstrating the typical features of the German character through a description of their environment and life, that geometric correctness, accuracy, respect for their place of residence complements the character of the collective image of the characters-residents.

Thus, an analysis of numerous components from the presented works of Russian literature allows us to draw conclusions that the image of the German has not undergone much change over 2.5 centuries. The work of the second half of the 20th century differs strikingly from the works of authors of the 18th – early 20th centuries, since emotional and evaluative descriptions of typical representatives of Germans acquire exclusively negative generalized descriptions. In the works of the 18th – early 20th centuries, the typical image of a German includes such descriptive components as pedantry, cleanliness, love for one’s work and labor, concentration, seriousness, etc. In the work of the second half of the 20th century there are no such descriptive features of the typical character of a German; if any are found in the work, it is solely to emphasize barbaric and cruel qualities and actions.

References

1. Борисова, Е. Б. О содержании понятий «художественный образ» и «образность» в литературоведении и лингвистике [Электронный ресурс] – Режим доступа: file:///C:/Users/User/Desktop/мкк%20курсовая/o-soderzhanii-ponyatiy-hudozhestvennyu-obraz-i-obraznost-v-literaturovedenii-i-lingvistike.pdf/. Дата обращения 10.09.23.
2. Гончарова, Н. Ю. Общетеоретические основы изучения понятия «образ» [Электронный ресурс] – Режим доступа: file:///C:/Users/User/Desktop/мкк%20курсовая/obshcheteoreticheskie-osnovy-izucheniya-ponyatiya-obraz.pdf/. Дата обращения 09.09.23.
3. Жеребило, Т. В. Словарь лингвистических терминов / Т. В. Жеребило. Изд. 5-е, испр. и доп. – Назрань: ООО «Пилигрим», 2010. – 226 с.

4. Чернец, Л. В. Литературоведение. литературное произведение: основные понятия и термины: учебное пособие / Л. В. Чернец. – 143 с.
5. Чернова, С. В. Художественный образ: к определению понятия [Электронный ресурс] – Режим доступа: file:///C:/Users/User/Desktop/мкк%20курсовая/hudozhestvennyu-obraz-k-opredeleniyu-rpnyatiya.pdf/. – Дата обращения: 10.09.23.
6. Яковлева, С. В. Образ немца-предпринимателя в России в 18 – начале 20 вв. и современный контекст филологического образования / Modern Humanities Success / «Успехи гуманитарных наук». – Выпуск 9. – С. 163–170.
7. Достоевский, Ф. М. Бесы / Ф. М. Достоевский. – Ленинград: Азбука-классика, 2008.
8. Платонов, А. Одухотворенные люди / А. Платонов. – М. : Правда, 1986.
9. Толстой, А. Н. Петр Первый / А. Н. Толстой. – М. : Правда, 1974.
10. Фонвизин, Д. И. Собрание сочинений. Том второй / Д. И. Фонвизин. – Ленинград: Государственное издательство художественной литературы, 1959.

Scientific edition

EDUCATION AND SCIENCE IN THE 21st CENTURY

Articles of the VIII International Scientific and Practical
Conference

November 29, 2023

Editor: Stepanov D., Nikiforova R., Prokopyuk A.

Design and computer imposition: Paharelskaya S.

Responsible for issue: Aliakseyeva A.

Подписано в печать 31.10.2024.

Печать ризографическая. Гарнитура «Times».

Усл. печ. л. 11,9. Уч.-изд. л. 12,7. Формат 60x90 1/16.

Тираж 30 экз. Заказ № 237.

Выпущено издательским сектором

Витебского государственного технологического университета
210038, Республика Беларусь, г. Витебск, Московский пр-т, 72.

Свидетельство о государственной регистрации издателя, изготовителя,
распространителя печатных изданий № 1/172 от 12 февраля 2014 г.