
АННОТАЦИИ

Abstracts

The Information-Measuring System for Quality Control of Transformer Oil

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Key words and phrases: transformer oil; express control; principal component method; measuring cell; spectral characteristics; Labview.

Abstract: The purpose of this study was to develop an information-measuring system for quality control of transformer oil based on the National software package Instruments LabView, which enables to obtain measurement information for the method of express quality control of transformer oil. The use of such a system will make it possible not only to determine the quality of transformer oil, but also to predict the degradation of its quality over time.

Methodology for Express Quality Control of Transformer Oil

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Key words and phrases: transformer; transformer oil; identification; algorithm; spectrograms; dielectric loss tangent; impedance.

Abstract: The purpose of the research is to develop a method for express quality control of transformer oil, based on the analysis of the obtained spectral characteristics using principal component and cluster analysis with further prediction of the occurrence of deviations in the qualitative composition. An algorithm for express quality control of transformer oil has been developed. In accordance with the algorithm, an experiment was conducted on a group of spectral characteristics with various deviations in the quality of transformer oil, such as the presence of moisture and impurities in the transformer oil, which showed the effectiveness of using the principal component approach (the first three principal components describe more than 98 % of the variance of the initial data). Cluster analysis made it possible to correctly identify groups with various deviations. At the final stage of the algorithm, deviations in the qualitative composition of transformer oil were predicted; the experiment showed a prediction reliability of no worse than 95 %.

Automation of Production Processes and Data Management in Industrial Production

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Key words and phrases: automation; software; industrial enterprise; implementation; strategy.

Abstract: In the aluminum industry today, information management and innovation are aimed at optimizing production processes. The introduction of new information systems may entail external

problems, including the lack of suitable solutions and difficulties in using them. Businesses are addressing these challenges with customized automated systems, improving information management and operational efficiency.

Software Implementation of an Information System for Managing the Register of Serialized Items Based on a Cloud Service

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Key words and phrases: information system; honey; cloud service; unique number; NET Framework; algorithm; database.

Abstract: The purpose of the paper was to develop the software part of an information system for managing the register of serialized items based on a cloud service. The types of cloud services for implementing an information system are considered. An algorithm for user interaction with the information system has been developed. The software part is written in C#. A database for this information system was also developed. The functionality of the program was checked and the absence of any failures was noted.

Software Implementation of a Warehouse Logistics Information System Using RFID Tags

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Key words and phrases: information system; stock; logistics; RFID tags; diagram.

Abstract: The goal of this project is the software implementation of an information system, the basis of which is warehouse logistics using RFID tags. Within the framework of this article, a diagram of the deployment of an information system, a diagram of applicants has been developed and constructed, and the interface of the designed software implementation of a warehouse logistics information system using RFID tags is presented. The implementation of an information system project will reduce the likelihood of loss of profit due to control over goods and analysis of their demand by sector managers, increase the efficiency of product analysis and the overall efficiency of personnel.

Modeling a Voltage to Frequency Converter in NI Multisim

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Key words and phrases: converter; modeling; temperature; Multisim.

Abstract: The purpose of the study was to develop a unit for measuring and stabilizing the temperature of the furnace stage of a high-temperature ion receiver. The relevance of the problem is described, a review of devices for similar purposes and existing methods for measuring temperature is carried out, as well as the choice of the type of sensor used. Simulation of the analog-to-digital converter, microcontroller and display unit has been completed. The principles of constructing a microprocessor system have been developed.

Modeling the Inductor and Bifilar Shunt of a Device for Magnetizing High-Coercivity Magnets in the COMSOL Environment

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Key words and phrases: measurement; pulse magnetization; highly coercive magnets; Rogowski belt; COMSOL Multiphysics.

Abstract: To magnetize permanent high-coercivity magnets, it is necessary to create a large current – 5–10 times greater than their coercive force. When such a current is created, the inductor coil becomes very hot, which leads to loss of energy and possible melting of the inductor. The purpose of the research is to develop and study models of an inductor and a bifilar shunt of a device for magnetizing high-coercivity magnets in the COMSOL environment. The development and research of mathematical models was carried out: an inductor with and without a magnet, a shunt and a Rogowski coil. The results obtained can be used in the production of high-coercivity magnets, as well as in the development of new devices for pulsed magnetization.

Methodology for Building a Software Release Process to Improve the Quality of Software Products

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Kazan

Key words and phrases: software release cycle; software products; SDLC; QA; quality assurance.

Abstract: The purpose of the article is to demonstrate and study the methods and tools used in the software release cycle process, which allow increasing the level of quality. The tasks include issues of improving the quality of software products and systems without reducing the speed of their implementation and change. The hypothesis of the study is the statement that changes in the process of development and development of systems can improve the quality of developed solutions without reducing speed and increasing financial costs. Methods are engineering practices and technical approaches used in system development. The achieved results show the effectiveness of using approaches and practices to improve the quality of products and software components.

Software Implementation of the Information System for Analyzing Data from Electronic Operational Documentation

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Key words and phrases: operational documentation; information analysis; Information system; IDEF0.

Abstract: The goal was to develop an information system for analyzing data from electronic operational documentation, ensuring increased productivity of the operational documentation management system through the use of intelligent models. An information system for analyzing data from electronic operational documentation is presented, the main purpose of which is storing, collecting and analyzing information, as well as forming an expert solution and forecasting to improve the quality of user experience and the speed of processing large volumes of information.

Resistance Thermometer Verification Device

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Key words and phrases: measurement; thermometer; thermal converters; scheme; microcontroller; signal.

Abstract: The purpose of the research was to develop a device for testing resistance thermometers. The designs of resistance thermometers are considered and their classification is made. The structural and functional diagrams of a device for checking resistance thermometers have been developed and described. A methodology for testing resistance thermometers has been developed. This can help improve process efficiency, reduce downtime and improve overall product quality.

Detection of Traffic Anomalies in Information Systems Using Machine Learning Methods

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Key words and phrases: anomalies; traffic; machine learning; Information system; model; detection.

Abstract: The purpose of the study is to consider the features of identifying traffic anomalies in information systems using Machine Learning methods. To achieve this goal, methods of set theory, probability theory and mathematical statistics, mathematical modeling, comparison, formalization, as well as machine learning methods were used. The issues of identifying traffic anomalies using machine learning methods are considered. A machine learning model is proposed for intelligent detection of anomalous traffic data based on statistical laws and linear projection, followed by optimization of model parameters to obtain more accurate results.

Virtual Inertia Systems as a Means to Improve Sustainability Conditions in Electric Power Systems with Significant Integration of Renewable Energy Sources

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Key words and phrases: renewable energy sources; converter; inverter; converter control system; virtual inertia systems.

Abstract: Wind and solar generation are currently the fastest growing sources of electricity. The purpose of the study is to solve the problem associated with the integration of renewable energy sources (RES) from the point of view of the reliability of power systems. RES have a stochastic nature, and their output power constantly changes over time. This leads to problems with the balance of active power in the power system and covering peak loads, frequency and voltage regulation. Excessive shutdowns of converters during network failures and the lack of inertia in generation based on solar and wind are a problem that needs to be solved for the development of renewable energy sources. This article showed that one of the possible solutions is the use of virtual inertia systems.

Formation of Requirements for the Development of Automated Information Systems that Contribute to Increased Control of Production Activities

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Key words and phrases: automation; analytics; software; automated information system; activity of

the enterprise.

Abstract: The purpose of this study is to develop the basic requirements for creating an automated information system (AIS) aimed at increasing the efficiency of an enterprise. The basic structural requirements of the future system, as well as functional requirements for the system, have been developed for each individual user group. The article is devoted to the problems of developing an automated system aimed at increasing the efficiency of an enterprise. This work serves as a beginning for developing requirements, allows you to consolidate the acquired data and knowledge and move on to the next step - developing usage diagrams, development algorithms and integration into the enterprise.

Project Management for the Development of an IT System for the Strategic Development of the Organization

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Key words and phrases: industrial growth; innovation system; manufacturing firms; economic development.

Abstract: The modern market is characterized by a high degree of dynamism and constant change, which presents significant difficulties for organizations in achieving a competitive advantage. This article explores the use of software solutions in the context of automation and control of technological processes and production with the aim of developing and increasing the efficiency of organizations. In a rapidly changing market, business process automation is becoming an integral part of the success of organizations, as it represents a powerful tool that promotes successful competition. The article discusses the basic concepts and functionality of software in this area.

Service-oriented Architectures as an Automation Tool for Information Management in E-commerce

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Key words and phrases: automated information system; hardware architecture; e-commerce; online order processing; industry and innovation.

Abstract: This article presents the creation of an information management system tailored to the needs of online retailers, with an emphasis on innovative hardware and content architecture. This system offers core trading features such as seamless product catalog browsing, online order processing and payment options. In addition, its advanced features can significantly reduce manpower requirements by allowing tasks to be delegated to the developed system.

Modeling and Methods to Optimize Information Collection and Processing

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Key words and phrases: data; collection and processing of information; modeling; simulation models; optimization.

Abstract: The purpose of the article is to consider the features of modeling and the distinctive features of methods for optimizing the collection and processing of information. The objectives are to analyze the theoretical foundations of models and modeling techniques; to identify the requirements

for models; to explore various algorithms for constructing mathematical models for collecting and processing information. The research methods are systematization, induction and deduction, generalization, classification, analysis, and comparison. The results are as follows: during the research, the features and areas of application of analytical and simulation modeling methods were identified. Approaches to simulation modeling are considered separately. The principles and characteristics of optimization of simulation models are described. It is concluded that simulation is one of the best tools for collecting and processing information. The use of optimization methods in modeling makes it possible to create a model that is distinguished by high accuracy in terms of consistency, speed in terms of functionality and efficiency of the processes presented.

Service-oriented Architectures in Information Management Automation: Advantages and Applications

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Key words and phrases: automated information system; hardware architecture; e-commerce; client management; industry and innovation.

Abstract: This article discusses the creation of an automated information system (AIS) for an online store that meets modern standards. Particular attention is paid to both hardware and content architecture. The AIS includes functions typical for e-commerce, such as viewing a product catalog, order processing and payment. It is noteworthy that this system allows you to reduce the number of employees, since it can solve tasks traditionally performed by numerous employees. Moreover, in the long run, it can help in business growth and reduce the workload of employees by automating various repetitive and time-consuming tasks.

On the Construction of a Bifurcation Curve Corresponding to the Birth of a Cycle in a Second-Order Nonlinear System

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Key words and phrases: nonlinear oscillations; phase plane; saddle separatrix loop; Limit cycle bifurcation.

Abstract: Nonlinear dynamics is a rapidly developing mathematical science. The role of the theory of bifurcations, which studies rearrangements in phase space when the parameters of systems change, plays a central place in it. This science has the broadest applications in natural science and technology and is constantly fed from the outside by the formulation of new problems. Its foundations were laid by A. Poincare, A.M. Lyapunov, I.O. Bendixson, L.S. Pontryagin, A.A. Andronov.

This article discusses a mathematical model that describes the operation of a self-generator. Such models and similar ones are found in radio engineering, electronics, control theory, and communications. It has the form of a second-order nonlinear differential equation with two parameters – μ and α . It has been theoretically proven that for certain relationships on the parameters μ and α , limit cycles arise on the phase plane of the equation – mathematical images of self-oscillatory modes. In this work, based on numerical analysis and a certain technique, a bifurcation curve $\alpha = \alpha(\mu)$ is constructed, corresponding to the birth of a limit cycle.

Algorithm for Calculating Interaction Coefficients for a Non-Stationary System of Integro-Differential Equations of Radiative Transfer and Statistical Equilibrium

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Key words and phrases: transport equation; Einstein coefficients; spontaneous emission; forced absorption; equations of statistical equilibrium.

Abstract: The object of the study is a numerical algorithm for calculating the coefficients of spontaneous emission and stimulated absorption when solving a system of non-stationary transport and statistical equilibrium equations in the approximation of a two-level atom. The purpose of the study is to research and programmatically implement the algorithm and compare the results obtained with the available experimental data. The work provides the formulation of the problem, the basic calculation formulas necessary to calculate the interaction coefficients; In addition, a comparison of the obtained coefficient values with experimental data is provided. The research methods include algorithmization and programming methods, the theory of equations of mathematical physics. The results are as follows: an algorithm for calculating interaction coefficients when solving a system of transport and statistical equilibrium equations was developed and implemented in software; the numerical values of the coefficients are in good agreement with the experimental data.

A Regularized Newton Method with Step Selection for Solving Ill-Conditioned Systems of Nonlinear Algebraic Equations

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Key words and phrases: algorithm; boundary value problem; math modeling; multilayer systems; numerical methods.

Abstract: The purpose of this study was to develop a regularized Newton method, which consists in finding the roots of a system of nonlinear equations with the choice of an iterative step parameter to ensure global convergence of the computational process. The following tasks were set: to analyze the performance of the computational method on test problems and compare the results obtained with the results of existing algorithms known from the literature. It was assumed that the method would be effective for solving multipoint boundary value problems using the shooting method. Such problems arise during mathematical modeling of various processes in natural science. The method has been used for a long time to solve various systems that appear when modeling physicochemical problems of ion transport in electromembrane systems and has shown its effectiveness.

Classification of Non-Contact Methods for Obtaining Three-Dimensional Images Related to Problems of Modeling the Mechanical Properties of Transport and Warehouse Logistics Facilities

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Key words and phrases: methods for obtaining three-dimensional models of objects; image analysis; modeling of mechanical properties of objects; movement of goods; logistics.

Abstract: The study examines the problem of choosing the optimal method for forming a three-dimensional model of objects for the purpose of assessing the mechanical stability of the modeled object. The key characteristics of the methods are substantiated and their classification is developed. Based on

the correlation of the characteristics of classification groups of methods with the requirements for the results of three-dimensional modeling of objects performed on its basis, optimal methods are identified. Approaches to the design of devices and systems based on them are proposed.

A Mathematical Model of Hierarchical Competition

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Key words and phrases: survival; competition; mathematical model of population; niche; steady state; sustainability.

Abstract: The concept of competitive mutual exclusion, formulated on the basis of simple mathematical models and laboratory studies, often does not explain the disappearance of individual species from ecosystems. One of their theoretical tasks is to search for conditions for the coexistence of numerous biological species using the same trophic resource. An explanation for the survival of numerous competing species can be obtained based on simulation modeling of competition between a large number of species. For this purpose, we have developed a competition model and carried out simulation modeling.

The paper analyzes the modified mathematical model of Volterra competition. The model includes the environmental factor for biological populations and the technology factor for economic entities. A hierarchical competition model has been developed. It has been proven that for a sufficiently large number of competing subjects with weak interactions, all interacting subjects remain in equilibrium states. Using simulation modeling, the distributions of surviving populations (economic entities) were constructed. It has been shown that the most significant factor influencing probability distributions (survival) is an external factor, and not pairwise relationships.

Game-Theoretic Model of Competitive Interaction between Economic Agents

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Key words and phrases: mathematical modeling; multi-agent interaction; economic process; compromise solution.

Abstract: The paper examines a game-theoretic model of competitive interaction between economic agents in the form of a non-antagonistic game in which players sell the same type of product at different prices, while investing in advertising to increase potential buyers. The goal of the research is to find a compromise solution for economic agents in a mathematical model of competitive interaction. The objectives of the research are mathematical formalization of the economic process; construction and analysis of an algorithm for competitive interaction between economic agents. The solution to the problem of competitive interaction between economic agents is a compromise solution determined on the compromise set.

A Study of the Dynamic Parameters of Reinforced Concrete Buildings of Various Structural Solutions

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Key words and phrases: seismic resistance; natural vibrations; period and frequency; settlement

complex; reinforced concrete structures.

Abstract: In the paper, the authors examine the influence of changes in the structural design of a building on its dynamic response. The purpose of the work is to identify the optimal structural design of a frame building under seismic impact, to compare the numerical values of the dynamic parameters of buildings of various structural schemes, which can affect the seismic resistance of structures when calculating for natural vibrations, as well as obtaining internal forces when calculating for seismic impact. The hypothesis of this study is that the use of stiffening cores and diaphragms increases the stiffness of the building, resulting in a reduction in the forces in the most loaded elements, which leads to an increase in seismic resistance.

Organizational and Technological Model Taking into Account the Manifestations of Negative Construction Factors

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Key words and phrases: organizational and technological solutions; construction production; predictive model; influencing factors; systems approach.

Abstract: The organizational and technological model of construction production is a conventional image of a construction project at the stage of its construction. The effectiveness of organizational and technological solutions is largely determined by the quality indicators of the completed facility. The purpose of the research is to develop an algorithm for the formation of effective organizational and technological solutions aimed at taking into account and forecasting the risks of untimely completion of construction. The research hypothesis includes the assumption of the need for a predictive approach when developing an organizational and technological model of construction production. The research methods include techniques for systemic and multifactor analysis of complex events, processes and phenomena, as well as mathematical (analytical) modeling of organizational and technological procedures of construction production. As a result of the research, an algorithm for forming a predictive mathematical model was developed, which allows for the analysis of factors influencing the rate of timely completion of construction.

Experimental Determination of Transverse Slopes during the Construction Phase of the Life Cycle of Highways Using AR Tools

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Key words and phrases: information model; road transport construction; quality control; car roads; life cycle; augmented reality; construction results.

Abstract: The application of the information model in the context of diagnosing transverse slopes of highways is analyzed; the following tasks are completed: studying the capabilities of tools in the diagnostic process, analyzing data verification, studying the objectivity of the method to determine the compliance of transverse slopes. It is assumed that the integration of an information model and augmented reality tools allows for a more accurate and objective assessment of the results of highway construction. The method made it possible to visualize and analyze the geometric parameters of the road in real time. The results of the study confirm the effectiveness of the proposed method, and also emphasize its objectivity in certain conditions. The process of verifying the obtained data is disclosed and calculations are presented that confirms the reliability of the proposed method under conditions corresponding to real construction scenarios. The results and conclusions of the study may have important implications for improving the efficiency of the highway assessment and acceptance process.

Mentoring in the Experimental Site of the Pedagogical University and Secondary School

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Key words and phrases: pedagogical mentoring; teachers of the Pedagogical University; teachers; students.

Abstract: The purpose of the study is to determine the key characteristics of pedagogical mentoring, which is based on activities of a substantive, intellectual and practical nature. The objectives of the study were to consider the main characteristics of pedagogical mentoring in the context of the culture and history of pedagogy. The study used theoretical methods: study of scientific publications, theoretical analysis, systematization and generalization. As a result, the characteristics of pedagogical mentoring and the factors in the formation of the mentor's experience of subjectification are substantiated. To a greater extent, this is facilitated by humanitarian technologies, partnerships between subjects of the educational process, the presence of internal motivation, self-organization and reflection.

Introduction of Information Technologies in the Process of Supporting Speech Development in Older Preschoolers

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Key words and phrases: information technology; sound pronunciation; computer training programs; electronic interaction cards; children of senior preschool age; speech disorder.

Abstract: The article discusses ways of introducing information technologies into the correctional work of a speech therapist-defectologist with children with speech disorders. The identified conditions for the use of information technologies in the process of developing sound pronunciation in older preschoolers with speech impairment are the objectives of the study. The results of the study were directions for the use of innovative technologies in the process of developing sound pronunciation (at the stage of production, automation, differentiation of sounds) in children of senior preschool age within the framework of the implementation of the Federal State Educational Standard for Education. The research material presented in the article can be used in the work of an educational psychologist with this category of children.

The Analysis of the Level of Basic Economic Literacy of Senior Preschool Children through the Results of the Introduction of an Educational Computer Game into the Pedagogical Process of Preschool Educational Institutions

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Key words and phrases: cognitive sphere; computer game; behavioral sphere; senior preschool age; "The path to the economy"; economic literacy; emotional-sensual sphere.

Abstract: The article provides an analysis of data on the level of economic literacy of children of senior preschool age after the experiment. The results are presented both by the levels of economic literacy of children and by areas of personal development. The goal of our work was to develop a computer game with economic content and introduce it into the pedagogical process of kindergartens. The research hypothesis is based on the assumption that the process of forming the foundations of

economic literacy in children of senior preschool age will become more effective if an educational computer game is used. The objective of this research is a quantitative and qualitative analysis of the results obtained from the experiment. When developing the problem, we used theoretical and empirical research methods: analysis, generalization, questioning, observation, conversation, statistical methods, pedagogical experiment, methods of processing experimental data, etc.

Pedagogical Approaches to the Development of Student Independence in the Educational Process of a Modern University

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Key words and phrases: student; development of independence; independent work; educational process at the university.

Abstract: The purpose of the article is a theoretical analysis of the problem of developing student independence in the modern educational process of a university. The article examines the concept of “independence” in the works of research scientists in the field of pedagogy and psychology. The process of independent work of students at a university is analyzed as a means of developing their independence. The opinions of scientists are summarized; the author comes to the conclusion that this process has two significant sides: the teacher’s actions aimed at the student as a subject of the pedagogical situation, on the one hand, and at himself, at his own actions within a specific pedagogical situation.

Coping Strategies of Adolescents as a Way of Coping with Difficult Life Situations

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Key words and phrases: coping strategies; teenager; coping behavior; difficult life situation.

Abstract: The article examines the problem of coping behavior in adolescence. The purpose of the study was to study the conditions for the formation of adaptive coping strategies of adolescents in difficult life situations. The authors’ attention is focused on testing the effectiveness of the program for the formation of constructive coping behavior. A comparative analysis of coping strategies, carried out “before” and “after” the implementation of the program, made it possible to confirm its effectiveness in reducing destructive coping strategies in adolescents.

Improving the Tactical Performance of Swimmers Aged 12–14 Years at 800 Meters Freestyle

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Key words and phrases: tactical activity; swimmers of 12–14 years old; improvement; facilities; 800 m freestyle.

Abstract: The article presents data from an experimental study involving swimmers aged 12–14 years, dedicated to improving tactical skills. The purpose of the study was to determine ways to improve the tactical skills of swimmers aged 12–14 years old on the basis of experimental substantiation of means for improving the tactical activity of swimmers at a distance of 800 m freestyle. The objectives are to study the features of the tactical activity of swimmers aged 12–14 years and to identify the influence of the tactical option of swimming the 800 m freestyle distance on the competitive result; to

develop means of improving the tactical activity of swimmers aged 12–14 years, taking into account the characteristics of swimming the 800 m freestyle distance; to experimentally determine the effectiveness of using means for improving the tactical activity of swimmers aged 12–14 years, developed taking into account the characteristics of swimming the 800 m freestyle distance. The hypothesis assumed that as a result of studying the characteristics of the tactical activity of swimmers and the influence of the tactical version of swimming the 800 m freestyle distance on the competitive result, ways to improve the tactical skills of swimmers in the age group of 12–14 years will be determined. Research methods included: analysis of literature and protocols of all-Russian swimming competitions; pedagogical experiment; pedagogical observations; pedagogical testing; methods of mathematical statistics. As a result of a study of the characteristics of the tactical activity of swimmers aged 12–14 years, it was revealed that athletes of this age group have a low level of tactical skill, which is manifested in the inability to use the tactical option with uniform swimming of the distance. As a result of correlation analysis, it was revealed that in boys and girls the result of swimming the 800 m freestyle distance is more influenced by speed fluctuations along the distance segments ($R = -0.68-0.85$). The justification and development of means for improving the tactical activity of swimmers aged 12–14 years was carried out, taking into account the characteristics of swimming the 800 m freestyle distance. The effectiveness of using means to improve the tactical activity of swimmers aged 12–14 years was experimentally determined.

Development of Ideas about Space among Schoolchildren through Game Situations

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Key words and phrases: game situation; space; ideas about space; student development.

Abstract: The relevance of the study is due to the fact that in mass educational practice, teachers do not always consider the development of students' ideas about space as a priority. In this regard, the purpose of the article is to present the results of experimental work aimed at diagnosing the formation of students' spatial representations. The objectives are to show the importance of developing ideas about space among elementary school students; describe the possibilities of using game situations in the development of their spatial concepts. The authors hypothesize that purposeful work using game situations will contribute to the development of students' spatial concepts. Research methods: pedagogical experiment, systematization, generalization. The materials of the article may be useful to practicing teachers in solving the identified problem.

Practical Methods of Teaching the Subject “Mathematics” in Primary School

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Key words and phrases: oral teaching methods; mathematics; Primary School; education.

Abstract: The relevance of the article for secondary schools lies in the fact that the authors present the results of using practical teaching methods aimed at developing the skills of younger schoolchildren in mathematics lessons in elementary school. The purpose of the article is to present the experience of using practical teaching methods in the practice of teaching mathematics in primary school. The objectives are to characterize practical teaching methods, show the effectiveness of using methods at different stages of the lesson. The authors used the method of analysis and generalization of teaching experience. The materials of the article can be used by practicing teachers in achieving the planned educational results for junior schoolchildren in mathematics.

School-University Interaction as a Condition for Improving the Quality of School Mathematics Education

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Key words and phrases: interaction; teaching practice; research activities; student; student; university professor; teacher.

Abstract: The relevance of the article is due to the importance of integration between universities and schools in modern conditions. The purpose of the article is to characterize the “school-university” interaction as a condition for improving the quality of school mathematics education (using the example of LPI, a branch of SibFU and schools in the Krasnoyarsk Territory). The objectives are to present the experience of work of branches of the departments of LPI – a branch of Siberian Federal University with educational organizations in the region; show the possibilities of integrating school-university interaction to improve school mathematics education. The research methods include analysis and generalization of experience, systematization. The materials of the article can be used by the teaching community when organizing joint work of higher schools and educational organizations.

The Use of Information and Communication Technologies in Working on Multimedia Projects (through the Example of the Novel “Oblomov” by I.A. Goncharov)

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Key words and phrases: integration; information and communication technologies; multimedia project; book trailer; travel history.

Abstract: In this article, using the example of the novel by I.A. Goncharov “Oblomov” examines the specifics of using information and communication technologies in working on multimedia projects. The purpose of the article is to describe the technology of working on multimedia projects within the framework of research activities and creative interpretation of literary text. The objectives of the study are to reveal the concept of “information and communication technologies” in modern methodological science, to substantiate the methodology for their use in literature lessons at school using the example of studying the novel by I.A. Goncharov “Oblomov”. The hypothesis of the study is to assume the productivity of the use of information and communication technologies in literature lessons in high school, including when studying the works of I.A. Goncharov. The research methods included a method of theoretical analysis of special (philological, pedagogical, methodological) sources, a comparative method, and a descriptive method. As a conclusion, it should be noted that the application of information and communication technologies is highly productive in working on classical works in literature lessons at school.

Sports Article as Educational Material

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Key words and phrases: sports note; educational material; retroperiodicals; regional press.

Abstract: An analysis of modern scientific research and educational and methodological developments shows that practicing teachers actively use a variety of educational material to improve the efficiency of organizing teaching in Russian language lessons. Therefore, the purpose of the article is to show the possibility of using sports notes as educational didactic material in Russian language lessons.

To achieve the goal, the article presents a number of tasks using regional periodicals of the 1940–1950s. The authors used a set of methods: analysis of scientific and pedagogical sources on the problems of using didactic material; retrospective method and generalization method. It is shown that the use of a sports note from this period introduces the realities of regional reality in a historical context, taking into account the socio-cultural conditions of the region, activates cognitive activity, contributes to broadening the general horizons, and developing the independence of students. Among the criteria for selecting didactic material, the following can be distinguished: compliance with the educational task, accessibility, genre unambiguity.

Building a Creative Educational Environment in the Process of Teaching a Foreign Language through Interactive Methods

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Key words and phrases: creativity; educational environment; creative foreign language educational environment; interactive teaching methods; foreign language; creative potential.

Abstract: The purpose of the study is to present ways of creating a creative educational environment in the process of teaching a foreign language based on interactive methods. The research objectives are to determine the role of a creative educational environment in teaching foreign languages; define the concepts of “creative educational environment”, “creative foreign language educational environment”; to characterize the role of interactive methods in creating a creative foreign language educational environment; to present the most effective interactive methods for creating the designated educational environment. The research hypothesis is based on the assumption that teaching a foreign language will be more effective if a creative learning environment based on interactive methods is created in the process. The main research methods are: analysis of psychological and pedagogical literature and observation. The results of the study are as follows: determination of the role of a creative educational environment in teaching a foreign language, clarification of the concept of “creative foreign language educational environment,” presentation of interactive teaching methods in order to create a creative foreign language educational environment.

Methods for Organizing Aerobic Exercises with Children of Primary School Age with Mental Retardation

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Key words and phrases: adaptive physical culture; aerobics; children of primary school age; impaired mental function; physical development.

Abstract: The purpose of the article is to study methods of organizing aerobic classes in adaptive physical education for primary schoolchildren with mental retardation. The objectives are to analyze theoretical material about the possibility of using aerobics in physical education classes for primary schoolchildren with mental retardation; consider methods of organizing classes with an aerobic component; to consider the possibilities of developing motor activity of a primary school student with mental retardation during adaptive physical education classes with elements of aerobics. The article discusses methods for organizing aerobic exercises that can be used in physical education classes in compensatory educational institutions.

Brief Analysis of the Development of Culture and Art of National Minorities in the Heilongjiang River Basin

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Key words and phrases: Heilongjiang River Basin; national minorities; art; culture.

Abstract: The Heilongjiang River basin is home to many national minorities with different levels of development, whose cultural appearance can be divided into periods of prosperity and decline. Using the method of collecting literary sources, this study presents an analysis of the development features of various types of art (music, song, dance) of national minorities in the Heilongjiang River basin. The purpose of the study is to reflect the influence and interaction of national minority cultures and the culture of the Great Chinese Plain to encourage the national minorities of the Heilongjiang River Basin to continue and preserve culture, as well as the cultural development of China's national minorities as a whole.

Problems of Adaptation of Foreign Students in the Region of Study and the Formation of Linguistic and Local History Competence

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Key words and phrases: foreign phone; adaptation; types of adaptation; problems; sociocultural, psychological, racial adaptation; adaptation levels; forms and methods of work.

Abstract: The article is devoted to the issues of adaptation of foreign students to the realities of life in the country of the language being studied. The relevance of the study is determined by the intensification and expansion of international, including educational, contacts, since many young foreigners receive education in Russia and go through the stages of adaptation. The purpose of the research is to identify the content and features of the process of sociocultural adaptation of foreign students studying at the East Siberian State University of Technology and Management. The hypothesis is based on the assumption that sociocultural adaptation is an important condition for the successful entry of foreigners into the educational process and can be considered as a microsocial process of mastering everyday life, which should help develop intercultural competence. When writing the article, methods of observation, questioning, and conversation were used. The authors of the article draw attention to the factors influencing the adaptation of foreign speakers. These include: psychological, social, racial, as well as subjective and objective. All types of adaptation that foreign students go through in the country of the language being studied are examined in detail: mental adaptation, social adaptation, intercultural adaptation, everyday adaptation, climatic adaptation, etc. The authors of the article believe that successful sociocultural adaptation requires: from foreign students – overcoming the language barrier and accepting a different way of life, culture and values; from others – basic acceptance and empathic attitude towards foreign students (the ability to understand the feelings, emotions, needs of others). Various activities carried out with students bring certain results that help foreigners adapt to new living conditions in another country.

Patriotic Values in the Context of the Formation of Ideological Sovereignty of Russia

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Key words and phrases: Russian patriotism; civic identity; ideological sovereignty; culture; upbringing; moral.

Abstract: The article analyzes the prerequisites and trends in the formation and development of ideological sovereignty in modern Russia, in the conditions of today's external challenges and threats. The close relationship between this sovereignty and patriotism is revealed, the growth of which is observed in Russian society in connection with the Special Military Operation. The article intends to identify the relationship between the strengthening of patriotic values and ideological sovereignty, the formation of which in the conditions of modern external challenges has become a task of national importance for Russia. The main emphasis will be on changes in the cultural landscape of the country, aimed at a gradual shift away from the influence of Western and pseudo-liberal ideological attitudes and mythologies. The research hypothesis is as follows: the current state of military confrontation with the collective West has objectively created the conditions for the formation and strengthening of the ideological sovereignty of Russians. This sovereignty is based on the values of patriotism of the multinational Russian people, as well as rejection of the liberal and gender agenda of the West. The results are as follows: the study revealed historical and sociocultural features of the formation of Russian patriotism in the post-Soviet era. The need to strengthen the spiritual and ideological sovereignty of Russia in the context of global external challenges is substantiated.

Cartoons as a Means of Developing the Spiritual and Moral Qualities of Primary Schoolchildren

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Key words and phrases: cartoons; junior schoolchild; moral qualities; spiritual and moral values; extracurricular activities.

Abstract: The purpose of the study was defined by the authors as follows: to present a tested program of extracurricular activities for the development of spiritual and moral qualities. The research objectives are to study and analyze theoretical, psychological, pedagogical, and methodological literature; to identify the success of using cartoons in the development of spiritual and moral qualities. The hypothesis is based on the assumption that the development of spiritual and moral qualities of younger schoolchildren will be successful if a number of psychological and pedagogical conditions are met. During the study, the authors used observation and pedagogical experiment methods. Testing a program of extracurricular activities for the development of spiritual and moral qualities, based on watching cartoons, has proven its effectiveness when certain conditions, specified in our work, are met.

Features of Organizing Activities for Patriotic Education of Students of a Pedagogical University

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Key words and phrases: organization of activities; patriotic education; higher education; students; pedagogical university.

Abstract: This article analyzes scientific literature on the problem of organizing activities for patriotic education of students at a pedagogical university. The relevance is revealed, which lies in the fact that patriotic education forms among young people a certain system of knowledge about the heroic feat of the Russian people during the Great Patriotic War, fosters a sense of pride in their country, develops a desire to help people around them and those who find themselves in difficult life situations, thus building important human qualities in the younger generation. The components of patriotic education are revealed. The required problem is formulated, which consists in studying how activities for the patriotic education of students at a pedagogical university should be carried out. To organize the study, the authors used methods for analyzing and summarizing literature data, as well as modeling and visualization. The types of activities for patriotic education of students of a pedagogical university are

presented using the example of the Minin University. A scheme has been created with areas of activity for the patriotic education of students at a pedagogical university.

Development of the Sense of Touch in Children of Senior Preschool Age with Visual Impairments Using Tactile Handicraft Books

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Key words and phrases: touch; tactile craft book; children with visual impairments.

Abstract: This article presents the features of making a tactile handicraft book, directions and sequence of working with it. The goal is to identify the pedagogical conditions for the use of tactile handicraft books in the development of the sense of touch in children of senior preschool age with visual impairments. The research hypothesis is that the process of developing the sense of touch in visually impaired children of senior preschool age will occur most effectively when using specially selected tactile handicraft books. The research methods were: pedagogical experiment and qualitative analysis of the research results. The results of the study are as follows: the features of the development of the sense of touch in visually impaired children of senior preschool age were studied, the main features of the use of tactile handicraft books in the development of the sense of touch in children with visual impairments, the directions and sequence of work with them were highlighted.

Development of Students' Speech Based on Didactic Material of Regional Content

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Key words and phrases: creative tasks; search and creative tasks; methods of working on speech development; coherent speech; speech development.

Abstract: The purpose of this article is to consider the possibilities of using didactic material of regional content in the context of working on the development of students' speech. The problem of the research is due to the insufficient development of the issue: there is no wide range of means and techniques for developing students' speech based on reference to texts and tasks on regional topics. In search of consideration of the identified problem, the following tasks were solved: an analysis of methodological literature was carried out to identify tasks of a creative nature and methods of working on the development of speech through the use of search and creative techniques were proposed. The research hypothesis is based on the assumption that systematically organized work on speech development based on students' conscious attitude to the content side of the didactic material will contribute not only to the development of coherent speech in students, but also to the formation of a sense of patriotism, starting with love for their small homeland. When working on the article, the authors used the analysis method and the generalization method. The practical significance of the article lies in the development of predominantly search and creative work methods in the aspect of students' speech development.

Professional Communication: A Condition for Implementing a Cognitive Approach to Teaching Russian as a Foreign Language

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Key words and phrases: professional communication; communicative qualities of speech; cognitive

approach; axiological approach; subject goal; Russian as a foreign language.

Abstract: Professional competence is determined at the international level. Increasing the quality, attractiveness and competitiveness of the Russian education system in the global and regional educational space and in the future increasing the share of exports of educational services is possible only if a comfortable infrastructure is created for the training of foreign students, their communication, including professional ones. The cognitive approach, as one of the leading ones in solving the identified problem at the international level, contributes to the assimilation of the basic elements of the professional program. Today, special attention is paid to the training of foreign specialists in educational institutions of the Russian Federation.

In order to find ways to pedagogically equip the educational process, an attempt was made to find effective ways to teach Russian to foreigners, which ensure the implementation of the concept of exporting educational services to the Russian Federation.

The article used theoretical (analysis of regulatory documents to substantiate the relevance of the formulated problem, theoretical and methodological analysis to determine the starting points of this study, conceptual and terminological analysis to compile the discursive apparatus of the formulated problem, system analysis for a holistic consideration of the research problem), empirical (observation) and experimental (experiment, questionnaires, testing, methods of mathematical statistics) methods.

The research base included: Russian Technological University (**RTU MIREA**), Moscow; Liaoning Normal University, located in Dalian (PRC). 99 people took part in the experimental training, among them: practicing teachers of Russian as a foreign language at RTU MIREA and students of the Moscow Pedagogical State University (**MPGU**), studying under the program of additional professional education “Russian as a foreign language” (**RFL**), approved by the department of RFL MPGU. The total labor intensity of the professional communication experiment program is 48 hours: 30 (classroom classes) + 18 academic hours (extracurricular work). Based on the conducted research, the authors identify a number of conditions that contribute to the implementation of a cognitive approach to teaching the Russian language in a foreign language audience, which is also the subject of consideration of professional communication in an experimental-descriptive format.

The results that were obtained confirm the effectiveness of involving elements of professional communication in the experiment as a condition for implementing a cognitive approach to teaching Russian as a foreign language. As a result, educational and methodological support for the implementation of the methodology for the formation of professional speech of foreigners has been developed, which allows expanding the possibilities of choosing forms, methods, techniques, and means of developing the professional and communicative potential of foreign students in the conditions of the additional education system. In addition, the results of the study make it possible to scientifically create an effective environment for the development of professional speech in a foreign Russian school. Using the developed methodology, it is possible to achieve a high level of quality of the results of the communicative and cognitive development of a foreign speaker.

**“Manifesto of the Communist Party” translated by Wandao Chen
and the Sinicization of Marxism**

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Key words and phrases: “Manifesto of the Communist Party”; full translation; Wandao Chen; sinicization of Marxism.

Abstract: The main purpose of this study is to identify the connection between the “Manifesto of the Communist Party” by Chen Wandao and the Sinicization of Marxism. Wandao Chen’s complete translation of “Manifesto of the Communist Party” describes the features of its spread in the period before the formation of new China. Using visual software, the main theme of Wandao Chen’s Manifesto in that period is identified, and a specific explanation of its key words is given. As a result, the article proposes the theoretical and practical significance of the Manifesto from different perspectives.

The Impact of the Coronavirus Epidemic on the Educational Activities of Chinese Migrants Living in Russia

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Key words and phrases: coronavirus epidemic; Chinese migrants living in Russia; influence; life; pandemic.

Abstract: The article describes the conditions for obtaining education by Chinese migrants living in Russia during the coronavirus epidemic. The goal is to study the conditions of teaching activity of Chinese migrants during the 2019–2022 pandemic. The objectives are to consider the social situation and features of the educational activities of Chinese migrants in Russia; to summarize the activities of volunteer and public organizations that improve the university education of Chinese migrants; to describe the impact of the coronavirus epidemic on the educational activities of Chinese migrants. The hypothesis is based on the assumption that the coronavirus epidemic affected not only the economic and social activities of Chinese migrants, but also educational activities, which bring new challenges facing universities. The research methods include descriptive, analytical and comparative methods were used. The results as follows: the author comes to the conclusion that it is necessary to comply with measures to improve the educational activities of Chinese migrants during the pandemic. Practical application: the materials of the article containing an analysis of educational activities in Russia and China in 2019–2022 can be used when creating conditions for distance learning in Russian and Chinese universities.

A Study of a Monitoring System for the Quality of Undergraduate Education in Local Higher Education Institutions Based on Big Data

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Key words and phrases: big data; bachelors from local higher educational institutions; monitoring the quality of training.

Abstract: Big data technology is the most important technical support for improving the quality of education for bachelors of local higher education institutions, with the help of which it is possible to collect and analyze data, make scientific diagnostics and develop a scientific strategy. This study presents the principles, strategies and implications of constructing a quality monitoring system for undergraduate teaching in local higher education institutions based on big data technology in combination with their own real conditions.

Debate as an Original Educational Technology for Technical Students

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Key words and phrases: higher school; interactive method; debate; competencies; professional training.

Abstract: The purpose of the study is to identify effective methods for conducting intermediate certification in the learning process. The objectives of the study include considering approaches to organizing the educational process at a university; obtaining an example of the successful use of the interactive method in the form of debates in conducting intermediate certification. The research methods are a comparative analysis, and pedagogical observations. The presented results showed an increase

in the interest of technical students in the learning process and the effectiveness of a non-traditional approach in conducting intermediate certification.

Formation of Environmental Consciousness in the Process of Spiritual and Moral Development and Education of Students

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Key words and phrases: spiritual and moral education; environmental awareness; educational process.

Abstract: The purpose of this study is to determine the substantive and methodological dominants of the formation of environmental consciousness. The objectives of the study included consideration of the leading characteristics of an individual's environmental consciousness and the substantive dominants of the formation of a student's environmental consciousness. The study used theoretical methods: study of scientific publications, theoretical analysis, systematization and generalization. As a result of the study, the basic substantive and methodological foundations for the formation of a student's environmental consciousness in the educational process of a university were specified.

The Essence of the Concept in Culture, Science and Pedagogical Discourse

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Key words and phrases: concept; culture; the science; pedagogical discourse; educational process; didactic unit; content of professional training.

Abstract: The purpose of writing this article is to determine the essence of the concept in culture, science and pedagogical discourse and to identify the role of the concept in fundamentalization of the content of professional training of a future specialist. The following tasks are defined: analyze modern interpretations of the term; systematize the types of concepts according to their area of use; interpret the essence of the concept in the educational process and in the content of professional training of the future specialist. The research hypothesis is based on the assumption that definition of a concept in the content of professional training and its integration into the educational process is a necessary pedagogical condition for the conceptualization of professional training and the fundamentalization of the content of education. The research materials included scientific articles and dissertation research on the topics: "Time frame (beginning of the 21st century)", "Scientific field (philosophy, linguistics, pedagogy)", "Sphere of human activity (culture as a type of activity that combines the social and spiritual spheres, including art)". The main research methods are theoretical and systematic analysis of sociocultural changes that determined the need to fundamentalize the content of professional training of a future specialist and research into the definition of the concept in various fields of knowledge.

Contradictions in the System of Training Cadets to Manage the Daily Activities of Units of the National Guard Troops

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Key words and phrases: unit commander; competence; training system; management specialist;

graduate requirements; management of daily activities.

Abstract: In the context of a Special Military Operation, there is a significant need to reconsider approaches to the training of future unit commanders. The purpose of the study is the system of training cadets of military educational organizations of higher education to manage daily activities. The objective of the study is to identify the main contradictions in the system of training commanders of units of the National Guard troops to manage daily activities. The research hypothesis is the assumption that the identified contradictions will make it possible to determine the main directions for improving this system. During the research work, methods of content analysis of governing documents, comparison and generalization of the results were used.

The Influence of Self-Educational Activities of University Students on the Development of Professional Competence

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Key words and phrases: professional competence; competencies; self-educational activities; activity-based approach to building education at a university; the relationship between self-educational activities and the development of professional competence.

Abstract: The purpose of the study is to substantiate the theoretical and scientific-methodological foundations for the formation of university students' readiness for self-educational activities as a significant condition for the effectiveness of the development of professional competence. The objectives of the study are to substantiate readiness for self-educational activities in the structure of professional competence; consider the influence of self-educational activities of university students on the effectiveness of the development of professional competence. The research methods are comparison, methodological analysis, and generalization. The research results are as follows: it has been proven that self-educational activity is an integral component of the development of professional competence; it is substantiated that readiness for self-education is formed during a specially structured educational process and contributes to continuous improvement, as well as the organization of self-training and self-development.

Teamwork Competence and Its Formation among Medical Students Using Simulation Technologies

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Key words and phrases: higher medical education; professional training; teamwork competence; simulation technologies.

Abstract: A competency-based approach to preparing a medical student allows one to activate personal resources in the educational process, enhancing the practical aspects of training at a university. The purpose of the research was to consider the essential characteristics of the formation of teamwork competence in the professional training of medical students. The objectives of the study are to consider the specifics of the competency-based approach in the professional training of medical students, to substantiate the importance of developing teamwork competence using simulation technologies. Research methods: analysis, systematization, generalization. The results are as follows: in the course of the study, the specifics of the competency-based approach in the professional training of medical students were considered, the importance of developing teamwork competence using simulation technologies was substantiated as a systematic and targeted process for students to acquire the necessary knowledge, practical skills, as well as the development of their professional and personal qualities, determining the implementation of team activities.

The Brand Phenomenon of Sports Organizations

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Key words and phrases: branding; brand value; sports organizations; promotion; intangible asset; sports brands.

Abstract: Creating and promoting a sports brand is a long, painstaking, but necessary process. In the regions of the country, in particular in the Republic of Sakha (Yakutia), traditionally strong sporting events are organized, but they are often limited to targeting the internal target audience. Knowledge of the classic components of the brand would help expand the geography of such events. The purpose of this article is to consider the main parameters of brand equity based on their application by large corporations. The objectives include studying the structure of branding and success stories of top sports brands. Methods of analysis and synthesis of information were used. The result of the study was the structuring of brand value for the development of sports organizations, practical recommendations for promoting the brand.

The Problem of Physical Development of Youth in Karelia as an Indicator of Russian Population Well-Being

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Key words and phrases: physical development; physical fitness; health; physical activity; healthy lifestyle.

Abstract: The main goal of this study is to study the physical development of youth in Karelia as an indicator of the well-being of the population. In the process of studying the set goal, it is necessary to assess the physical development of young people, while morphological parameters should be considered together with indicators of the functional state. Assessing physical development and physical fitness will allow us to identify weak links in the development of students for further targeted influence on them. The use of monitoring results is necessary for making both operational decisions and planning systematic long-term measures aimed at increasing the level of physical health of students.

A Basic Model of Integration of Flipped Classroom and Content-Language Integrated Learning in Teaching a Foreign Language at a Technical University

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Key words and phrases: foreign language; training model; flipped classroom; technical university; CLIL.

Abstract: The article presents a model of teaching a foreign language for professional purposes to technical students using flipped classroom and subject-language integrated learning (CLIL) techniques. The purpose of the study is to develop a sequence for presenting and practicing subject and language material within the framework of an integrated systematic approach. The following tasks are set and completed: dividing educational material into phases of preparation (pre-class, classroom, test and reflection) and knowledge and competencies that are the focus of attention, which ensures continuity in the presentation and study of the material. The following methods are used in the work: theoretical analysis of pedagogical sources and modeling. The practical result of the research is a ready-to-use model for constructing educational material, which can be scaled to various target languages and areas of training.

The Analysis of the Language of Painting Based on Art Education

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Key words and phrases: art education; painting; language of painting; symbols; artistic expression; artistic ideas.

Abstract: The language of painting reflects the artistic expression of the artist's ideas, and this form of pictorial language finds expression in music, dance, theater and poetry. The relevance of the problem lies in the fact that in artistic creativity and art education this is often not given due attention. The main purpose of the research in this work is to study the formation and development of the language of painting and its influence on art education. The main objective is to explore the relationship between the language of painting and art, art education, semiotics, sociology and anthropology, responding to the study of fundamental problems of artistic expression and providing theoretical guidance for the study of art education methods today. The research hypothesis is that the language of painting is cross-cutting for all other types of art. The main research methods are documentary research and theoretical induction. The study shows that the evolution and development of modern art has explored fundamental issues of art and art education on several levels, not only enriching and updating the language of human visual images, but also changing the aesthetic way of perceiving the world.

Innovative Activity of Subjects of the Scientific and Educational Process in a Modern University

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Key words and phrases: modern university; innovativeness; innovative activity; factors of innovation activity; subjects of innovation activity at the university.

Abstract: The purpose of the study is to analyze the factors that determine the innovative activity of the university and all subjects of innovation activity at the university. The objectives of the study are to highlight the features of an innovative university and innovative activities at the university; to analyze the factors determining innovation at the university, as well as the innovative activities of scientific, pedagogical and other university employees; to substantiate the influence of innovative activity on the qualitative side of updating the scientific and educational potential of the university. The research methods are theoretical analysis, synthesis, and generalization. The results of the study are as follows: an analysis of the factors determining the innovation activity of the university and the subjects of innovation activity at the university is presented; it is substantiated that the innovative activity of a university is directly related to the readiness of the subjects of the scientific and educational process for innovation, updating the scientific and educational potential of the university, and freedom of scientific creativity in general.

Activation of pre-University Career Guidance in Training Personnel for the Healthcare System

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Key words and phrases: future medical worker; pre-university career guidance; forms and methods of career guidance work; schoolboy.

Abstract: The purpose of the study is to provide a brief overview of the forms and means of pre-university medical career guidance. The objectives of the study were to study the forms and technologies

of modern career guidance; to analyze the best career guidance practices of Russian medical universities, to present the practice-oriented project “Young Doctor”. The hypothesis of the study is the assumption that new forms and activity of pre-university career guidance will contribute to the early identification of professional interest and orientation in medicine among schoolchildren, shape their readiness to study at a university, and stimulate further training of specialists for the healthcare system. Research methods: study of literary and information sources, generalization, survey of participants in the NEFU Medical Institute project “Young Doctor”.

Current Trends in Changing Approaches to the Formation of Health-Saving Hygienic Behavior among Students of a Pedagogical University

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Key words and phrases: professional training of teachers; health conservation; core teacher education; health-saving module.

Abstract: The purpose of the study is to identify trends in changing approaches to the formation of health-saving hygienic behavior in the professional training of teachers. The hypothesis of the research was the assumption that modern approaches to the formation of health-preserving competencies among teachers take into account the shortcomings of the content of previous educational programs and will be effective if the proposed methodological principles are observed. Based on the analysis of the curricula and work programs of the disciplines (over the last 20 years) in which students of a pedagogical university are studying, the following results were obtained: the structure and content of the health-preserving module have undergone many changes. The modern approach proposed by the unified core of teacher education is aimed at solving the problem and increasing the effectiveness of education in the aspect of hygienic education with proper methodological support (continuity of disciplines, correlation of types of work, thematic content, etc.).

Higher Education as an Indicator of Readiness for Professional Activity: Main Approaches and Problems

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Key words and phrases: higher education; readiness; professional activity; main characteristics; survey.

Abstract: The article examines the main characteristics of higher education, giving an idea of it as an indicator of graduates’ readiness to conduct professional activities. The objectives of this study are to establish the main characteristics of higher education as an indicator of readiness for professional activity, as well as to identify the needs and interests of future specialists mastering higher education programs. The objectives of this study include a review of existing approaches to the issues under study, determination of the main characteristics and advantages of higher education as an indicator of readiness for professional activities, conducting a sociological study among students of higher education institutions in order to identify their attitude towards higher education, as well as wishes for improving training professionals within the higher education system. The main hypothesis underlying this study is the assumption that there is a discrepancy between existing educational programs and the current requirements of the labor market. An analysis of the main points of view existing in the academic space on this problem was carried out, as well as a survey of university students using Google tables in order to clarify their point of view on this issue. Based on the results of the study, it was revealed that higher education is clearly an important indicator of professional competence and is highly valued by both

preparing specialists and the labor market; however, educational programs require more practice-oriented material that can prepare specialists for the realities of the labor market.

Content and Quality of Education as Factors of Professional Adaptation of Pedagogical University Graduates

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Key words and phrases: higher education; the quality of education; pedagogical university; teacher education; professional adaptation; content of education; students.

Abstract: The purpose of the research is to study important aspects of professional adaptation of graduates of a higher pedagogical educational institution. The objectives of the study are determination of criteria for professional adaptation of a beginning teacher; the analysis of the content and quality of higher education as determinants of professional adaptation. The research hypothesis is the assumption that the content and quality of higher education can be considered as key factors in the professional adaptation of graduates of a pedagogical university. The research methods are analysis of scientific literature, synthesis, and synthesis. The results are as follows: the main criteria for the professional adaptation of a beginning teacher have been determined; The content and quality of education were studied as determinants of professional adaptation of graduates of a higher pedagogical educational institution.

The Role of Pedagogical Mentoring in Motivating Future Primary School Teachers

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Key words and phrases: pedagogical mentoring; mentor; future teachers; education; motivation.

Abstract: The purpose of the article is to substantiate the role of pedagogical mentoring in motivating future primary school teachers. The research method was testing and questioning of students at a pedagogical institute. The hypothesis is that pedagogical mentoring in the “teacher-student-pupil” connection contributes to more effective motivation of students for teaching activities. The result of the study is to increase motivation for a future profession among students through pedagogical mentoring.

Educational Inequality as a Factor Determining the Success of Studying at a University

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Key words and phrases: higher education; inequality in the student environment; educational and starting inequality; students.

Abstract: The purpose of the article is to study the phenomenon of starting inequality among students and determine the degree of its influence on the success of education. The objectives of the study include collecting statistical data to assess the level of starting inequality, analyzing student learning outcomes, establishing the dependence of academic performance on the presence of starting advantages. The research methods are conducting a survey of university students, processing and analyzing the data obtained and information about student performance. The results are as follows: under the conditions of the study, the influence of starting educational inequality on students' performance was not found.
