
АННОТАЦИИ

Abstracts

The Analysis of Complex Networks on the Artificial Intelligence Platform BAUM AI: Construction of Primary Graph Models of Cities

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Key words and phrases: analysis of complex networks; graph models of cities; artificial intelligence; analytical platform; data analysis; machine learning.

Abstract: The article discusses the issue of analyzing complex networks based on the use of machine learning methods implemented within the framework of the applied artificial intelligence platform BAUM AI at Bauman MSTU for the development and implementation of import-substituting data analysis technologies. Currently, the platform has modules that allow information processing without the need for direct coding.

The purpose of this research is to develop methodological and software for one of the new directions in the development of the BAUM AI platform – the creation of a module that supports solving problems in the theory of complex networks. The module allows you to create continuous planning systems focused on goal setting, national economic forecasting, planning and programming of socio-economic development in the Far East of industry, regions and cities.

The article describes approaches to the formation of primary graph models of cities, which make it possible to form the structure of various material and information flows that underlie the city model as a “network of networks”. Models of such structures are considered in the theory of complex networks. Thus, large cities are studied as complex adaptive systems developing with a high stochastic component, depending on the trajectory of previous development.

A Study of Cerebral Tissue Oxygenation Using the Developed Hardware and Software Complex

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Key words and phrases: near-infrared spectroscopy; optical tissue oximetry; cerebral oximetry; tissue oxygenation; saturation; hardware and software complex.

Abstract: The purpose of this paper is to assess the oxygenation of brain tissue using the NIRS4 device and the developed data processing algorithm. As part of the experiments, the performance of the NIRS4 multimodal system was confirmed, which allows monitoring regional blood circulation and changes in blood flow in various arterial areas of the brain. This opens up new perspectives for research in neurophysiology and vascular regulation, as well as for the diagnosis of blood pressure dysregulation.

The study also included the analysis of the effects of hypoxic interval training and electrical muscle stimulation on human performance. Experiments confirmed significant changes in the concentrations of oxygenated and deoxygenated hemoglobin in the prefrontal cortex in subjects who performed training using interval hypoxia. In addition, the results of experiments measuring oxygenation in the motor cortex in response to finger tapping on a table were in good agreement with the literature. These results provide valuable information about the dynamics of brain oxygenation and may be useful for the early diagnosis of abnormal biochemical parameters.

The Efficiency of a Short Take-Off and Landing Aircraft Wing with a Movable Panel and Slotted Mechanization of the Take-Off Configuration

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Key words and phrases: short take-off and landing (STOL) aircraft wing; movable wing panel; lift coefficient increment; relative output of the panel to the stream.

Abstract: This article is based on a patent obtained by the author for a short take-off and landing (STOL) aircraft wing with a movable panel. The purpose of the work is to theoretically substantiate the advantages of a wing with a movable panel, as well as experimentally, in digital terms, to determine the influence of a specific value of the exit of the movable panel into the flow on the increase in lift during takeoff, with simultaneous experimental confirmation of the advantages in comparison with a traditional wing. The task of the research is to determine theoretical approaches to confirm the advantages of the wing under consideration, as well as all the necessary factors of the numerical experiment. The experimental research method is based on the use of a calculated aerodynamic package, the preparation of an electronic model of a wing part with a movable panel released into the flow, and the determination of all parameters of aerodynamic research. The result of the work is a theoretical and experimental confirmation of the advantages of the STOL wing with a movable panel and assessment of the influence of the value of the panel's exit into the flow on the increase in lift force.

An Algorithm for Reducing Human Fatigue When Working with the Tactile Interface of a Remote Control System

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Key words and phrases: remote control system; robotic manipulator; fatigue of the human operator.

Abstract: The purpose of the paper is to study the remote control system. The task is to develop an algorithm that reduces the load on the human operator when working with the system. The article proposes a nonlinear law for changing the operator's impact force to reduce the perceived weight of the driving device. At the same time, the adequacy of the human operator's perception of the force of influence of the remote environment when the executive manipulator comes into contact with an obstacle is maintained. The system is copying, that is, the master device with which the operator works has the same kinematics as the actuator.

Using a Modified Communication Channel Passification Method to Compensate for Random Delays in the Remote Control System of a Space Manipulator

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Key words and phrases: remote control system; free-flying space manipulation robot; passification

method.

Abstract: The purpose of the paper is to study the remote control system for a free-flying space manipulation robot. The system consists of an executive manipulator installed on a service satellite, a master device with which a human operator works, and a communication channel between the master and executive manipulators. The task is to develop an algorithm for stable remote control of the executive manipulator, ensuring the required positioning accuracy of the end gripper of the executive manipulator. To solve the problem, a modified method of passivation of the communication channel was used, taking into account the mutual influence of the manipulator and the service satellite.

Research and Development of a Model and Algorithm for Obtaining a Search Image for Intelligent Recommendation Systems

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Key words and phrases: search pattern model; algorithm for obtaining a search pattern; intelligent recommendation systems; LSTM.

Abstract: The purpose of this research is to develop a pattern search algorithm for intelligent recommender systems. This paper presents a statement of the problem of research and development of a model and algorithm for obtaining a search pattern for intelligent recommender systems. In the process of developing this algorithm, a method was identified by which the network can learn to clear the contents of the internal state. The article discusses the first stage of solving this problem.

Educational Online Resource "Arctic Multilingual Portal www.arctic-megapedia.com": Cartographic and Geoinformation Support

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Key words and phrases: Arctic; GIS maps; indigenous peoples; resettlement; native language; Yakutia.

Abstract: The purpose of this article is to develop a GIS map of settlement areas and the level of proficiency in the native language of the indigenous peoples of the North of the Republic of Sakha (Yakutia) to fill the educational online resource "Arctic multilingual portal www.arctic-megapedia.com". To achieve this goal, the following tasks were solved: to consider the structure, categories, traffic of the Arctic multilingual portal, to study the features of the use of geographic information systems to document the spatial distribution of languages and cultures of indigenous peoples. The hypothesis of the study is the assumption that the educational online resource "Arctic Multilingual Portal", created within the framework of the project "Digitalization of the linguistic and cultural heritage of indigenous peoples of the Arctic," will make it possible to identify the degree of preservation of culture and assess the possible danger of extinction of languages. During the work, methods of analysis, generalization, systematization were used, and a cartographic research method was used. The result of the work was a GIS mapping of the settlement and level of proficiency in the native language of representatives of the indigenous peoples of the North (Evenks, Evens, Yukaghirs, Dolgans and Chukchi) living in the Republic of Sakha (Yakutia).

**Алгоритм взаимодействия систем охлаждения
центров обработки данных и платформ виртуализации
для осуществления превентивного управления температурным режимом**

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Ключевые слова: платформа виртуализации; система охлаждения; управление температурным режимом; центр обработки данных; энергоэффективность.

Аннотация: Рост спроса на вычислительные ресурсы центров обработки данных привел к увеличению потребления энергии и выделению тепла в этих центрах. Для повышения энергоэффективности систем охлаждения требуются решения, направленные на снижение энергопотребления для поддержания требуемого температурного режима. Одним из подходов повышения энергоэффективности систем охлаждения в центрах обработки данных является применение методов превентивного управления температурным режимом.

В статье рассмотрен метод превентивного управления температурным режимом, основанный на данных об утилизации вычислительных ресурсов серверов. В предложенном подходе источником этих данных являются системы управления виртуализацией. Предложен алгоритм взаимодействия систем охлаждения центров обработки данных и платформ виртуализации для осуществления превентивного управления температурным режимом. Использование такого подхода позволяет уменьшить скорость реакции автоматизированных систем охлаждения, так как управляющие воздействия генерируются раньше, чем происходит увеличение температуры воздуха в центре обработки данных. Благодаря этому уменьшается риск нарушения температурного режима вследствие резкого увеличения нагрузки на серверы. Также в статье сформулированы требования к безопасности модуля интеграции автоматизированных систем охлаждения и платформ виртуализации.

**Reliability of the Data Transmission Network.
Separate Calculation of the Probability of Failure-Free Operation
at the First and Second Levels of Switches (core and access, respectively).
Markov's Model of Reliability of Local Data Networks**

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Key words and phrases: local computer networks; reliability of restored systems; Markov models; queuing systems.

Abstract: Since at the present time of digitalization, the work of organizations in all areas of life is impossible without the exchange of information, the reliable functioning of the data transmission apparatus is important. The objective of the study is to describe the process of functioning of local computer networks using the apparatus of queuing theory. The research hypothesis is as follows: the process of functioning of local computer networks is considered as a sequential change of states in a certain time interval Δt . The method for creating a local network productivity model as a queuing system makes it possible to find the probability of failure-free operation of the network before and after modernization, which can be used to reduce the network downtime per year. The results obtained in the article make it possible to have a significant impact on the reliability of the hardware of local data exchange networks when designing and modernizing existing technical systems.

Information Security Risks in the Service Sector

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Key words and phrases: risk analysis; risk identification; Information Security; risks; services sector.

Abstract: The purpose of the study was to develop a methodology for assessing the degree of information security risks in the service sector. To achieve the goal, the tasks of identifying possible threats, analyzing the likelihood of risks occurring and choosing countermeasures tactics were solved. System-wide analytical techniques were used, such as the hierarchy analysis method, SWOT analysis, STEP analysis and other techniques. A matrix of information security risks is proposed.

Memory Compilers Using C250G Technology

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Key words and phrases: compiler; memory blocks; options; tool.

Abstract: The purpose of this study is to develop a line of memory compilers using C250G technology. Block Compiler is a program that allows you to create and compile blocks of code for use in various applications. A block of code is a set of instructions that are executed on a computer. Compiling blocks of code creates executable files that can be run on any computer that supports the operating system. The conclusions from the work in this article provide useful information for researchers, engineers and specialists interested in this area.

Development of a Simulation Model of a Supercapacitor to Use in a Solar Power Plant

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Key words and phrases: renewable energy sources; inverter; automatic control system; supercapacitor .

Abstract: Solar power plants (SPP) are connected to the electrical power system (EPS) using grid-following power inverters, which have a strong influence on the DC network. The purpose of this study is to develop a simulation model that allows one to analyze processes in a DC network under large external disturbances. Integrating a supercapacitor will reduce overvoltage levels. In this article, a simulation model of a supercapacitor was developed, as well as a control system that regulates its operating mode as part of a solar power plant. Studying the modes in the developed model will make it possible to obtain new methods for limiting overvoltages under large external disturbances, as well as to determine the operating features of power inverters in emergency modes of EPS.

Instrumentation and Technological Modeling Programs

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Key words and phrases: programs; instrument-technological modeling; tools.

Abstract: The purpose of this paper is to review modern programs used for modeling devices and

technological processes. The task was to consider various aspects of modeling, including the choice of tools, the main functionality and application of the software in various industries, as well as an analysis of the advantages and limitations of each program and subsequent conclusions. The article provides useful information for researchers, engineers and specialists interested in the effective use of instrument technology simulation programs.

Problems and their Solutions in the Field of Automation of Technical Processes

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Key words and phrases: automation of technical processes; smart home; internet of things; safety; production efficiency; artificial intelligence.

Abstract: Effectively solving key problems in the field of automation of technical processes in smart homes can improve functionality and user satisfaction, making smart homes more sustainable, safe and convenient for everyday use. The purpose of the study is to analyze key problems in the field of automation of technical processes and present innovative approaches and solutions to optimize, improve their productivity, safety and efficiency. To achieve this goal, a review of the main problems faced by smart homes was carried out, vulnerabilities and security risks in smart homes were analyzed, measures were proposed to solve them, strategies and technologies were developed to optimize energy consumption in smart homes, and modern innovations in the field of automation of technical processes were studied. With examples of research and projects, measures to ensure cybersecurity in smart homes are examined and protection strategies are proposed, specific examples of research and projects that solve automation problems in smart homes are given, general conclusions are formulated, key recommendations are highlighted, and directions for future research and development are indicated. The research hypothesis is as follows: effectively solving key problems in the field of automation of technical processes in smart homes can improve functionality and user satisfaction, making smart homes more sustainable, safe and convenient for everyday use.

Synthesis of Automatic Modal Forecasters

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Key words and phrases: automatic modal predictor; differentiator; unknown signal; Transmission function; Burman – Lagrange series.

Abstract: The problem of synthesizing automatic modal predictors of unknown signals from a fairly wide class is considered. To solve the problem, the expansion of the exponential transfer function into the Burman-Lagrange series in terms of the powers of the transfer function of the modal differentiating link is used. The article uses concepts and methods of the theory of functions of a complex variable, the theory of ordinary differential equations and the theory of automatic control. The research hypothesis is the possibility of constructing an automatic device for predicting unknown signals. The forecasting accuracy can be increased by choosing the modes of the differentiating link, as well as by increasing the number of terms of the Burman-Lagrange series. The results of modeling the automatic forecaster constructed in the article are presented. The results presented show good prediction accuracy. The proposed method for synthesizing automatic predictors can be used to predict noisy signals.

**The Analysis of the Effectiveness of Using Computer Programs
for the Design and Modeling of Construction Projects:
A Comparative Analysis of nanoCAD, ARCHICAD, REVIT and Renga**

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Key words and phrases: computer programs; construction projects; design; modeling; architectural forms; geometric surfaces; program functionality; speed of work; software; tools and plugins.

Abstract: Currently, computer programs for the design and modeling of construction projects play an important role in the architectural industry. This article will conduct a comparative analysis of four popular programs: nanoCAD, ARCHICAD, REVIT and Renga. The purpose of the study is to determine the most effective program for the design and modeling of construction projects. During the study, the following aspects will be considered: the functionality of the programs, the ability to create architectural forms and geometric surfaces, ease of use, speed, availability of additional tools and plugins, as well as the cost of the software. The results of the study may be useful for architects, engineers and other professionals working in the field of construction and design.

Numerical Modeling of Meso-Destruction of Rock Mass

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Key words and phrases: finite element method; cracks; destruction of rocks; numerical modeling; meso-destruction; numerical experiment; deformation; voltage.

Abstract: The article discusses the destruction of rocks with the formation of mesocracks (mesofracture) during the construction of underground structures using the example of the rock massif of the Krasnoyarsk metro. The purpose of the study is to substantiate the brittle fracture of fractured rocks at the mesolevel using mathematical modeling methods. The objectives of the study are to model closed macrocracks at various angles of incidence with potential perpendicular elliptical mesocracks and verify the research results on a computer model. The research hypothesis is as follows: the presence of mesocracks leads to the opening of macrocracks in the rock mass, that is, to mesofracture. The research methods include analytical and numerical modeling using the finite element method. The results achieved include the possibility of determining, during mathematical modeling, the brittle destruction of a fractured rock mass after the appearance of meso-cracks .

**Mathematical Modeling of Non-Stationary Ion Transport
in Electromembrane Systems Given the Dissociation (Recombination) Reaction
of Water Molecules in Galvanodynamic Mode**

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Key words and phrases: electromembrane system; ion transport; dissociation (recombination) of water molecules; galvanodynamic mode; Nernst – Planck – Poisson equations.

Abstract: Functioning of electromembrane systems in intense current modes is accompanied by a dissociation (recombination) reaction of water molecules, which affects the efficiency of mass transfer. The purpose of the study is to develop tools for theoretical analysis of the influence of the dissociation (recombination) reaction on the transfer process in galvanodynamic mode, when the density of the current flowing in the membrane system is specified. One-dimensional models of ion transport in the depleted diffusion layer and the channel cross section of the membrane system are constructed based on

the chemical reaction rate equations, the Nernst – Planck – Poisson equations and a new galvanodynamic boundary condition for the potential. It has been shown that in the constant superlimiting current mode, the dissociation (recombination) reaction of water molecules slows down the process of desalting the electrolyte solution, reduces the thickness of the space charge region near the membrane surface, as well as the value of the charge density in this region.

Justification of a Technical Solution for Strengthening Structures with Polymer Composites

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Key words and phrases: design; load; gain; reinforcement; ultra-high molecular weight polyethylene; composite; polymer binder.

Abstract: The study aims to develop and justify a technical solution for strengthening building structures. Objectives: to identify the feasibility of strengthening structures with polymer composites (PC); present experimental results of the development and evaluation of PC properties. The hypothesis is as follows: the strength of PC will be higher if the reinforcing component of the composite is activated. The research methods include plasma activation of ultra-strong material, registration of contact angle, assessment of tensile and bending strength using standard methods. The results are as follows: the technical solution for strengthening building structures with the developed PC is to increase the tensile and bending strength of the structure by up to 1.5 times, depending on the binder.

Development of an Algorithm for the Optimal Selection of the Number and Location of Lighting Fixtures in an Office Space

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Key words and phrases: LED lamps; interior lighting; optimal lighting; work lighting; lighting; algorithm for selecting the optimal number of lamps.

Abstract: The main goal of the study was to develop an algorithm for the optimal selection and placement of lighting fixtures in office premises, providing sufficient illumination with minimal energy consumption. The study used mathematical and simulation methods to represent indoor illumination, taking into account natural light from windows and the properties of LED luminaires. Using the parameters of a real furnished room as an example, various lighting scenarios created by the algorithm were compared, assessing the uniformity of lighting, compliance with established standards for illumination of workplaces and the consequences for energy consumption. Validation of the algorithm showed a significant agreement (up to 90 %) with real measured indicators, which provides grounds for extrapolating the results obtained to similar conditions. The results of the study provide a comprehensive framework for achieving optimal indoor lighting.

Restoration of Historical Architectural Monuments of Small Towns of the North Caucasus

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Key words and phrases: North Caucasus; small towns; restoration; reconstruction; cultural heritage; architectural monument.

Abstract: This article raises the issue of preserving significant architectural monuments in small towns of the North Caucasus Federal District. The main attention is paid to the problem of restoration and reconstruction of architectural objects of cultural heritage. The purpose of the study is to consider the specifics of restoration and reconstruction of historical architectural objects of federal and regional significance and to identify problems associated with restoration activities. The tasks set by the authors of the study: to define the terms “restoration” and “reconstruction”; touching on the history of the construction of the palace of the Emir of Bukhara in the city of Zheleznovodsk, Stavropol Territory, to propose restoration work aimed at preserving this cultural heritage monument; identify problems and prospects for preserving architectural structures of the North Caucasus. The research hypothesis is as follows: restoration and reconstruction of a historically significant cultural heritage site should be aimed at preserving and restoring the monument in its original form, or in a form as close as possible to the object of restoration. The research methods include a method of art historical analysis, the analysis of historical sources, historical and cultural study of architectural heritage, technical and technological analysis. The results are as follows: the authors of the article came to the conclusion that, although restoration work is being carried out in small towns of Russia in order to preserve architectural monuments, in general, the restoration of architectural structures is slow and not always of high quality, as a result of which architectural objects continue to collapse.

Specifics of Restoration of Cultural Heritage Objects

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Key words and phrases: restoration; cultural heritage site; monument; story; culture; historical value.

Abstract: The purpose of the article is to consider the specifics of the restoration of cultural heritage objects. It is noted that the fundamental aspect of restoration is the transformation of an existing object of cultural heritage, the disclosure of its artistic component, as well as the creation of conditions in order to increase its life expectancy. It has been determined that the preservation of a cultural heritage object is understood as a set of measures, including measures for the physical preservation of the object as a historical and cultural value (repair, restoration, modernization). It is concluded that the main emphasis is on the possibility of preserving the authenticity of elements, designs, colors, materials through certain restoration technologies. As an example, the content of the project for the restoration and adaptation of the cultural heritage site “Guard House No. 4 Building” (1881–1885) in the Palace Park of the city of Gatchina, Leningrad Region, commissioned by St. Petersburg State Budgetary Institution of Culture “State Historical and Artistic Palace and Park Museum-Reserve “Gatchina” is given.

The Genesis of the “City Theory” and the Practice of Organizing Functional-Territorial Zones

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Key words and phrases: “urban theory”; creative concepts; functional saturation; urban structure; functional-territorial zones; systems approach; development of the urban environment.

Abstract: Cities accompany the development of human society over a significant period of time. Without exception, all civilizational transformations received corresponding reflections in the structure of the urban environment. Each of the bygone historical eras has left its own ideas about the features and principles of the formation and development of the urban environment, which should be recognized as the source of various and varied urban planning theories and a significant resource for research within the framework of “urban theory”. The purpose of the research is to analyze the conditions for organizing and developing the potential of territories of the urban structure. The research methods include the use of techniques for functional-territorial zoning of the urban environment, system analysis of processes and phenomena, analytical processing of available and open information. The research hypothesis

includes the assumption of a systematic approach to the analysis of the characteristics of the properties and conditions of territories in the urban environment. As a result of the research, the author's concept of applying the principles of functional-territorial planning to solving urban planning problems was developed.

Architectural and Urban Planning Specifics of the Development of Tourism Infrastructure in Foothill Areas

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Key words and phrases: tourist infrastructure; foothill landscapes; landscape levels; network routes.

Abstract: The article examines the specifics of the architectural and urban development of tourism infrastructure in the foothill areas and explores the urban planning potential of the foothill areas for the formation of centers and subcenters of tourism activities. The purpose of the article is to study and analyze domestic and foreign examples of the formation of architectural and urban planning centers of tourist activity in relation to the features of foothill landscapes. Based on the results of a comprehensive urban planning analysis, examples of the organization of tourism infrastructure in the Caucasian Mineralnye Vody, the foothills of Adygea, the region of Upper Austria and the Karlovy Vary region were studied; for each location, the main and additional tourist destinations, principles for locating transport hubs, and the nature of the use of water resources are determined.

Life Cycle Management of Capital Construction Projects Using Information Modeling of Estimated Construction Costs

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Key words and phrases: life cycle; capital construction projects; information modeling; estimated cost of construction.

Abstract: In the process of managing the life cycle of a capital construction project, there is a need to rationalize alternative technical, technological and organizational design solutions, optimized in terms of their estimated cost, which are equally ensured by mechanical safety and other safety requirements of objects. The purpose of the study is to demonstrate the effectiveness of management decision-making during the life cycle of a capital construction project from the perspective of optimizing the total cost of ownership of the facility. The objectives of the study are to investigate and identify the possibility of managing the life cycle of a capital construction project, including rational decomposition of the management object, automation of calculation and management of project resource costs. The research method consists of information modeling of the stages of the life cycle of capital construction projects with an increasing level of detail and simultaneous updating of the estimated cost of construction. The result of the study is the rationalization of the development of an information model by linking the optimal level of detail to the life cycle stage while simultaneously filling the model with estimated information.

Digital Literacy as One of the Most Important Competencies of a Modern Specialist in the Field of Education

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Key words and phrases: digital literacy; education; competence; foreign languages; sustainable

development goals.

Abstract: The purpose of this study is to study the demand for digital literacy in modern teaching. In accordance with it, the following tasks were identified: to find and analyze international initiatives in the field of education; find and analyze federal initiatives in the field of education; to determine the importance of digitalization in education and the main ways of its implementation. The hypothesis is as follows: digital literacy seems to be a relevant competency for education specialists both in Russia and abroad. During the study, general scientific methods were used - analysis and synthesis, induction and deduction. As a result of the study, the author confirms the hypothesis and comes to the conclusion that today digital competence is especially relevant in the framework of teaching foreign languages, which, in particular, is confirmed by the provisions of the Core of Higher Pedagogical Education.

Some Issues of Organizing a Mathematics Lesson in the Context of the Implementation of the Federal State Educational Standard

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Key words and phrases: mathematics; methods of teaching geometry; standard; mathematics lesson; learning skills.

Abstract: The purpose of the paper is to develop methodological techniques and tasks that are advisable to use at various stages of a mathematics lesson to implement the requirements of the Federal State Educational Standard. The objectives are to identify the requirements that must be taken into account when designing a modern lesson; give examples of methodological techniques and tasks that can be used in mathematics lessons for the purpose of forming learning skills.

Criteria for Assessing the Effectiveness of Physical Education Classes at University

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Key words and phrases: physical culture; assessment criteria; educational process.

Abstract: Assessing the effectiveness of the educational process within the framework of physical education classes is a necessary condition for further improvement of the educational process. This article provides some of the key criteria for assessing physical education classes in universities. The purpose of the study is to describe the main criteria for assessing the educational process in physical education. Research objectives: to analyze the criteria for the effectiveness of the educational process in physical education; highlight the most significant of them. As a result, the main criteria for assessing the effectiveness of the educational process in physical education are presented.

Preparing Students of the Faculty of Physical Culture and Sports to Comply with the Standards of the All-Russian Sports Society “GTO”

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Key words and phrases: VFSK “GTO” complex; Training program; students; physical education.

Abstract: This article presents the results of preparing 1st year students of the Faculty of Physical Culture and Sports to pass the standards of the All-Russian Physical Culture and Sports Complex “GTO”

within the framework of the academic discipline “Physical Culture and Sports”. The purpose of the study is to increase the number of students who have successfully completed the standards of the All-Russian Federal Sports Complex “GTO” for the golden insignia. Objectives of the research: to develop a program for preparing students to comply with the standards of the All-Russian Sports Society “GTO”; identify the effectiveness of the developed program. The hypothesis of the study is the assumption that the introduction of additional training days as part of students’ self-training will allow them to more successfully fulfill the standards of the All-Russian Sports Sports Complex “GTO”. The research methods included analysis of training programs for fulfilling the standards of the All-Russian Sports Society “GTO”, pedagogical testing and a pedagogical experiment. The results of the implementation of the developed program for preparing 1st year students to fulfill the standards of the All-Russian Sports Physical Culture “GTO” within the framework of the academic discipline “Physical Culture and Sports” are presented.

Remote Support of the Process of Teaching Listening Skills to Students of Non-Linguistic Training Programs at a Pedagogical University

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Key words and phrases: methods of teaching a foreign language; teaching listening; digital resources; distance support.

Abstract: The purpose of the study is to reveal the potential of digital resources in the field of teaching listening in a foreign language in the context of the modernization of Russian education. The research objectives are to analyze the functionality of digital resources for organizing distance support for listening training, to develop and describe tasks for developing listening skills within a specific topic. The research hypothesis is as follows: the process of learning to listen in a foreign language can be optimized through the use of digital resources that have appropriate functionality. During the study, methods of theoretical analysis and synthesis and observation of the learning process were used. The result of the study is a description of the three stages of working on an audio text. Particular attention is paid to preparatory and speech exercises that promote the development of skills to determine the topic of a message, extract the necessary information from a speech message, and establish logical connections.

The Formation of Sociocultural Ideas of Students Using Video Content in English Lessons

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Key words and phrases: authentic video materials; video content; sociocultural ideas; English lesson; formation of sociocultural ideas.

Abstract: The article is devoted to the study of the problem of forming the sociocultural component of communicative foreign language competence in the process of teaching English at school. The purpose of the study is to substantiate the effectiveness of using authentic video material in the formation of sociocultural ideas of students in English lessons. To achieve the goal, the following tasks were set: to highlight video content formats used in educational practice, to identify criteria for selecting authentic video material, to consider examples of tasks aimed at forming sociocultural ideas of students using authentic video material. As a result of the study, the effectiveness of using video content in English lessons was substantiated, examples of tasks were selected aimed at forming sociocultural ideas of students using authentic video material as part of work on school curriculum topics.

Organizational and Methodological Aspects of Working with Parents in the Framework of the Formation of Child-Parent Relationships

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Key words and phrases: parental competence; parents; child-parent relationships; psychological counseling.

Abstract: The article discusses the conditions for increasing parental competence. Consideration of issues of psychological, pedagogical, methodological and consulting assistance to parents were the objectives of the study. The result of the study was a description of the content of problem webinars, including educational, creative, reflective correctional methods aimed at creating a harmonious relationship in a parent-child couple. The research methods were: formative experiment and qualitative analysis of the research results. The research material presented in the article can be used in the work of an educational psychologist with parents.

Authoritarianism and Authoritarian Leadership: Analysis of the Phenomenon in the School Course on the Modern History of Western Countries

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Key words and phrases: recent history; Western countries; fascist Italy; educational literature; system analysis; political leadership; authoritarianism; dictator; hubris syndrome.

Abstract: The article analyzes the phenomenon of authoritarian leadership and the features of its study in school history education. Individual European regimes of modern times are considered as examples.

The objectives of the study include substantiation of the relevance of the problem of authoritarian leadership in the realities of modern geopolitics, analysis of the substantive aspects of the study of authoritarianism in history lessons in senior classes of Russian educational institutions (using examples presented in the educational literature of the regimes of Europe of the “interwar period”, primarily fascist Italy).

The research hypothesis assumes that when studying the phenomenon of authoritarian leadership in a modern school, it is necessary to take into account and convey to students its multifactorial nature, which is a complex combination of the personal qualities of the relevant historical characters with the socio-economic and political conditions in which they acted.

The results are as follows: the article identifies the features of reflecting the problems of authoritarian leadership in individual European states of the 1920s–1940s in the school discipline “General History. 1914–1945” (10th grade).

Methodological Aspects of Teaching Students to Solve Planimetric Problems Using Ready-Made Drawings

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Key words and phrases: teaching geometry; teaching technologies; geometric task; tasks on ready-made drawings.

Abstract: The relevance of the study is due to the increased attention of society to the level of mathematical training of schoolchildren as a fundamental component in the development of a general culture of individual thinking in modern society. The research hypothesis is that the use of problems

on ready-made drawings in the practice of teaching geometry to primary school students will contribute to the formation of their research skills, stimulate the motivational component in the study of the subject, and increase the level of mathematical preparation of students. The result of the research is the developed technology for teaching geometry to primary school students using geometric tasks on ready-made drawings. The significance of the research results is due to the possibility of their use in the practice of teaching geometry to primary school students, expanding opportunities in the formation of professional competencies of bachelors of pedagogical education in the context of studying innovative teaching technologies.

The Analysis of the Effectiveness of the Methodology for Developing Coordination Abilities in Rhythmic Gymnastics Practitioners

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Key words and phrases: rhythmic gymnastics; coordination; institutions of additional education.

Abstract: The article presents the results of a pedagogical experiment on the development of coordination abilities in girls involved in rhythmic gymnastics. The purpose of the study is to develop a methodology for developing the coordination abilities of 6–7 year old children involved in rhythmic gymnastics in an additional education institution. The objectives are to analyze the scientific literature on the research topic and determine the effectiveness of the developed methodology. As a working hypothesis, it was assumed that the use of the developed methodology for developing coordination abilities of 6–7 year old children involved in rhythmic gymnastics in an additional education institution will help to increase the level of development of coordination abilities. As a result, the results of the pilot study are presented.

Means and Methods for Developing Coordination Abilities in Rhythmic Gymnastics

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Key words and phrases: rhythmic gymnastics; training; coordination abilities.

Abstract: This article discusses the means and methods of developing coordination in rhythmic gymnastics. The purpose of the study is to analyze modern means and methods for developing coordination abilities. The research objectives include research methods – analysis and synthesis of methodological literature on the research topic. As a result, a set of the most effective means and methods used to develop coordination abilities in rhythmic gymnastics practitioners is presented.

Development of Ecological Culture of Junior Schoolchildren through Animation in Extracurricular Activities

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Key words and phrases: pedagogy; environmental culture; extracurricular activities; primary schoolchildren; animation.

Abstract: The purpose of the study is to consider the possibility of using animation as a way to develop the ecological culture of junior schoolchildren in extracurricular activities. The objectives of the paper are to study the essence of the concept of “ecological culture” and to reveal the possibilities of

using animation in extracurricular activities to develop the ecological culture of primary schoolchildren. The research hypothesis is based on the assumption of the productivity of using animation in extracurricular activities for the development of the ecological culture of junior schoolchildren. Theoretical and empirical research methods were used: analysis of psychological, pedagogical and methodological literature, questioning. Based on the results of the study, it was revealed that the use of animation with the plot of environmental fairy tales in extracurricular activities will have a positive impact on the development of environmental culture of primary school students.

Pedagogical Conditions for the Formation of Ethnocultural Values among Students of Secondary School Age

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Key words and phrases: integrative program "Hunav"; pedagogical conditions; situation of success; ethnoculture; ethnocultural values.

Abstract: The article highlights the results of a pedagogical experiment on the formation of such value indicators in middle school students as knowledge of their native language, folk traditions, rituals, customs, possession of ethnocultural knowledge about life, the historical past of their native land and the presence of communicative and speech skills in their native language in institution of additional education. The hypothesis of the study is the assumption that the formation of ethnocultural values in students will occur effectively if they are gradually formed through the assimilation of a system of knowledge, abilities, skills based on a person-oriented educational environment with the preservation and expansion of the sphere of communication in their native language, and the implementation of additional an educational program developed taking into account the needs and age characteristics of students, the requests of parents, current educational tasks, to create and maintain situations of success in the accessible creative activities of students.

During the research process, a set of methods was used: theoretical analysis of the problem and subject of research, pedagogical experience, and methods such as comparison, pedagogical observation, generalization, comparison, and modeling were also used. At the beginning of the experimental work, individual aspects of the problem under study were studied using the methods of questionnaires, testing, surveys, interviews, performing tasks of various types, conversations with students and parents, and involving students in solving problem situations. The result of the study was confirmation of the hypothesis.

A Model for the Development of Creative Abilities of Senior Preschool through Artistic Work of Ethnocultural Orientation

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Key words and phrases: preschool children; model; components; creativity; artistic work of ethnocultural orientation; preschool educational organization.

Abstract: The article presents a model for the development of creative abilities of preschool children in artistic work of ethnocultural orientation. The purpose of the study is to develop and scientifically substantiate a model of the process of development of creative abilities of preschool children in artistic work of ethnocultural orientation and pedagogical conditions that ensure the effectiveness of its implementation in the educational process of a preschool educational organization.

The objectives of the study are to reveal the features of the process of development of creative

abilities of preschool children; to determine the pedagogical potential of artistic work of ethnocultural orientation in the development of creative abilities of preschool children; to develop a model for the development of creative abilities of preschool children in artistic work of an ethnocultural orientation, to identify the pedagogical conditions for its implementation in the educational process of a preschool educational organization; carry out an experimental test of the developed model for the development of creative abilities of preschool children in artistic work of ethnocultural orientation and the pedagogical conditions for its implementation.

The research hypothesis is to assert that the development of the creative abilities of preschool children in artistic work of ethnocultural orientation will be effective if: the essential content characteristics of the creative abilities of preschool children are determined; the pedagogical potential of artistic work of ethnocultural orientation as a means of developing the creative abilities of preschool children has been revealed; a model for the development of creative abilities of preschool children in artistic work of ethnocultural orientation was constructed; pedagogical conditions are being implemented: a) creation of a developing subject-spatial environment of ethnocultural orientation, rich in visual demonstration materials, as well as equipment for children's independent activities; b) increasing the methodological literacy of teachers of preschool educational organizations in the field of developing children's creative abilities in artistic work of ethnocultural orientation; c) monitoring the level of development of children's creative abilities in artistic work of an ethnocultural nature.

The research methods include the methods of theoretical analysis of literature on the research topic; planning stages of experimental work; method of pedagogical experiment; pedagogical observation, questioning, studying the products of children's activities; mathematical and statistical analysis and processing of experimental data.

The achieved results of the study consist in the fact that a model of the process of development of creative abilities of preschool children in artistic work of ethnocultural orientation has been tested and the pedagogical conditions that ensure the effectiveness of its implementation in the educational process of a preschool educational organization can be used in the practice of educational organizations.

Формы и методы обучения иностранному языку для развития межкультурной коммуникации

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Ключевые слова и фразы: активные методы обучения; групповая работа; иностранный язык; кейс-задания; межкультурная коммуникация; проблемное обучение.

Аннотация: Цель статьи – описать особенности использования активных методов обучения в процессе формирования навыков межкультурной коммуникации студентов на занятиях по иностранному языку. Задачами исследования являются рассмотрение модели коммуникации в межкультурной аспекте, особенностей работы над формированием межкультурной компетенции, а также выделение активных методов и форм ее формирования. Методы исследования – анализ и статистическая обработка полученных данных. Гипотеза исследования: процесс обучения иностранному языку в современных условиях будет наиболее эффективен, если обозначить этапы, направления и организационно – методические условия реализации модели развития межкультурной коммуникации. На основе проведенного анализа к активным методам обучения автором отнесены работы в группах, групповая дискуссия, тренинговые задания, выполнение проектов и исследований, кейс-задания, анализ проблемных ситуаций, практические задания по различным темам и предложены конкретные примеры данных заданий. В заключении сделан вывод о том, что активные формы обучения помогают развитию межкультурной коммуникации в благоприятных условиях, повышению интереса к изучению иностранного языка и использованию изученного в реальных ситуациях общения.

Organizational and Legal Problems of the Creation and Functioning of School Theater as a Tool for Educating Children and Youth

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Key words and phrases: upbringing; education; school theater; education development strategy; school.

Abstract: The purpose of the article is to consider the organizational and legal problems of the creation and functioning of the school theater as a tool for educating children and youth. The school theater, being one of the most important mechanisms in the process of educating the younger generation today, faces various difficulties at the stage of its creation and operation. At this stage, managers, teachers and lawyers face new organizational, pedagogical and legal issues that need to be resolved in order for the new institute – the institute of school theater – to begin to function adequately and effectively within the walls of each school educational institution. Using general scientific and historical-pedagogical methods of knowledge, the authors of this article examined and proposed some ways to solve the identified problems.

Formation of Value Orientations of High School Students during Extracurricular Sports and Recreational Activities as a Pedagogical Problem

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Key words and phrases: values; value orientations; education; sports and recreational activities; extracurricular activities.

Abstract: The article is devoted to the formation of value orientations of high school students during extracurricular activities of a sports and recreational nature as a pedagogical problem. The article is devoted to the problem of forming value orientations among high school students during extracurricular sports and recreational activities. The article deals with the priorities of modern youth and their values. The purpose of the article is the formation of value orientations of high school students during extracurricular sports and recreational activities – as a pedagogical problem. Its tasks include involving students in carrying out research projects, creative assignments, and participating in sports events, during which they will learn to invent, understand and master new things, be open and able to express their own thoughts, be able to make decisions and help each other, and formulate interests and realize your capabilities. As a result of the study, it is concluded that modern extracurricular activities of a value-transforming nature should have new essential features. Its features are universality (the ability to form several value orientations within different directions), relevance for the subject of value-forming and value-transforming activities (forms and methods of extracurricular activities should be interesting, eventful and new), resourcefulness (availability of internal and external pedagogical resources for extracurricular activities for the formation and development of value orientations of schoolchildren).

The Potential of Extracurricular Sports and Recreational Activities in the Formation of Value Orientations of High School Students

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Key words and phrases: values; value orientations; extracurricular activities; sports and recreational orientation.

Abstract: The article is devoted to the problem of extracurricular sports and recreational activities in the formation of value orientations of high school students. An analysis of current trends in the development of the domestic education system indicates a significant expansion of the possibilities of using various forms of extracurricular activities in the educational process. The purpose of the article is the potential of extracurricular sports and recreational activities in the formation of value orientations of high school students. The research hypothesis is as follows: students' value attitude towards their health is manifested in their image and lifestyle. We proceed from the fact that the formation of a healthy image and lifestyle in the theory and practice of education is most logical to carry out in the process of physical education of students. Since the formation of knowledge, skills and habits of a healthy lifestyle and lifestyle is one of the main tasks of physical education of the younger generation. The potential of extracurricular sports and recreational activities in the formation of value orientations of high school students is revealed.

The Formation of Civil-Patriotic Qualities in Students in the Process of Studying the Crimean War of 1853–1856

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Key words and phrases: civic-patriotic qualities; education; Crimean War (1853–1856); war heroes; project method.

Abstract: The purpose of the study is to analyze the process of instilling patriotism and civic responsibility, the formation of moral values, and historical memory using the example of studying the heroic events of the Crimean War. The objective of the study was to reveal the features of students' project activities using the example of studying the events of the Crimean War of 1853–1856. Research hypothesis: education based on the example of studying the feat of the heroes of the Crimean War is aimed at developing patriotic qualities in students; sustained interest in historical figures. Research methods: study of teaching experience in educational institutions, analysis, synthesis, generalization, historical-comparative method. As a result of the study, the project activities of students were characterized based on the study of the heroic events of the Crimean War.

Features of the Organization of the Training Process in Adolescents 12–13-Year-Old Involved in Short Track Speed Skating at the Initial Stage of Training

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Key words and phrases: short track; initial stage of preparation; training process; teenagers of 12–13 years old.

Abstract: The article discusses the organization of the training process at the initial stage of training

for short track skating athletes. The purpose of the article is to present the types of training in short track speed skating and justify their necessity. The objectives of the study are to analyze the federal training standard for the sport "Speed Speed Skating", to identify the purpose of types of training at the initial stage of the training process in short track speed skating. The research hypothesis consists of the assumption that determining the ratio and load of types of training at the initial stage in short track speed skating will allow for the most effective planning of the training process. Analysis and synthesis of literature were used as research methods. As a result, the correlations between various types of preparation of the initial stage of the training process in short track are presented.

Ecological Worldview of Junior Schoolchildren

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Key words and phrases: junior schoolchild; extracurricular activities; environmental knowledge; ecological worldview; environmental responsibility; environmental education.

Abstract: The author considers the need for environmental education of junior schoolchildren to form their ecological worldview. And also the role of school and family in environmental education. The article provides examples of positive interaction between younger schoolchildren and the environment, and discusses options for extracurricular education. The purpose of the article is to consider the relationship between the ecological worldview within the framework of extracurricular activities with primary schoolchildren. The hypothesis of the study is to ensure the external influence of the media and television, peers, as well as a disturbed value system in some families on the formation of the ecological worldview of junior schoolchildren. The objectives of the study: to determine the elements of an ecological worldview, to consider the methodological aspects of educating an ecological worldview in primary schoolchildren. The research methods are the methods of synthesis and analysis of theoretical and practical material were used. The research results are as follows: the author gives conclusions about the possible improvement of the ecological state of the whole world, in connection with the change in the environmental views of junior schoolchildren.

Research on the Influence of Russian Music Education on Music Teaching in China

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Key words and phrases: Russia; music education; influence.

Abstract: Russia's achievements in the field of music have attracted the attention of the whole world. Success in the musical field is closely related to a systematic and stable system of musical training and education. This article uses literary method as well as comparative analysis to describe the influence of Russian music education on music teaching in China through a comprehensive understanding of Russian music education. Rethinking the development of music education in China will help build and develop China's music system with its national characteristics.

Economic Literacy of Schoolchildren: Problems of Development

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Key words and phrases: economic education; student; secondary school.

Abstract: The purpose of the work is to assess the level of development of economic literacy of schoolchildren. Objectives: to determine the factors and criteria for the development of economic literacy of schoolchildren; conduct a study of the level of development of economic literacy of schoolchildren; develop educational recommendations for teachers on including relevant tasks in the educational material. Hypothesis: the existing system of economic training for schoolchildren does not ensure a high level of economic literacy. Main methods: comparative analysis and systematization of survey data. Result: the hypothesis was confirmed using a survey of 560 schoolchildren.

Spiritual and Moral Education of Adolescents as a Pedagogical Problem

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Key words and phrases: spiritual and moral education; the institution of education and socialization of the adolescent personality; pedagogical problem; social maturity; existential vacuum.

Abstract: The purpose of the article is to argue for the spiritual and moral education of adolescents as an important pedagogical problem. The research hypothesis is based on the assumption that improving the spiritual and moral education of adolescents will be possible if educational organizations use pedagogical tools, including traditional and innovative forms, methods and means. The objectives are to determine the relevance of the topic; identifying forms, methods, and means that will contribute to the spiritual and moral education of adolescents. The research methods include analysis and synthesis. The research results are as follows: the use of pedagogical tools that allow combining traditional and innovative technologies helps improve the spiritual and moral education of minors.

Развитие интонационной стороны речи у детей старшего дошкольного возраста с общим недоразвитием речи: потенциальные возможности английской сказки

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Ключевые слова и фразы: английская сказка; интонация; общее недоразвитие речи; старший дошкольный возраст; экспериментальное исследование.

Аннотация: В статье рассматриваются особенности речевого развития детей старшего дошкольного возраста с общим недоразвитием речи (ОНР), в частности, аспект, связанный с развитием интонационной стороны речи. Цель исследования заключается в обосновании эффективности использования английской сказки в развитии интонационной стороны речи у детей старшего дошкольного возраста с ОНР. Задачи исследования включают: теоретическое обоснование потенциала использования английской сказки в коррекционно-педагогической работе с детьми старшего дошкольного возраста с ОНР, описание содержания и методологии эксперимента по развитию интонации (критериями выступают темп, высота и сила голоса, ритм), основанный на использовании английской сказки, обоснование результатов экспериментальной работы. Гипотеза исследования состоит в том, что английская сказка выступает средством развития интонационной стороны речи у детей старшего дошкольного возраста с ОНР. В качестве ведущих методов выступают: анализ психолого-педагогической литературы по рассматриваемому вопросу, обобщение, синтез, систематизация и эксперимент. Достигнутые результаты экспериментальной работы доказывают потенциал английской сказки в контексте формирования интонационной стороны речи у дошкольников с ОНР.

The Analysis of the Development of Kinesthetic Abilities in Children of 9–10 Years Old Doing Gymnastics

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Key words and phrases: coordination abilities; kinesthetic abilities; artistic gymnastics.

Abstract: This article analyzes the level of development of coordination abilities (kinesthetic) in children 9–10 years old engaged in artistic gymnastics. The purpose of the study was to develop the kinesthetic coordination abilities of those involved in artistic gymnastics. The objectives of the study are to identify the most important coordination abilities necessary for children 9–10 years old engaged in artistic gymnastics; experimentally prove the effectiveness of the selected exercises. The hypothesis of the study was the assumption that with a clear dosage of the training load and monitoring the gymnast's condition, these exercises can have a beneficial effect on the level of development of kinesthetic abilities. The research methods are analysis and synthesis of scientific and methodological literature, pedagogical experiment. As a result, a working hypothesis was proven, and the most necessary manifestations of kinesthetic (coordination) abilities were identified.

Activation of Cognitive Activity of Students by Means of Physical Education

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Key words and phrases: cognitive activity; physical culture; interest; motivation; monotony of the educational process.

Abstract: Activating the cognitive activity of schoolchildren is an important element of the educational process. This article presents the reasons for the decrease in cognitive activity within the subject of physical education. The purpose of the study is to consider the main reasons for the decline in cognitive activity of students. The objectives of the study are to analyze the reasons for the decrease in cognitive activity of students in a physical education lesson; propose options for increasing the level of cognitive activity of schoolchildren. The main research method is the analysis of scientific and methodological literature. As a result, options for enhancing the cognitive activity of schoolchildren in physical education lessons were proposed.

The Formation of Financial Literacy of Junior Schoolchildren in the Lessons of the Surrounding World

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Key words and phrases: financial literacy; formation process; set of tasks; junior schoolchildren.

Abstract: The article presents an analysis of the results of using a set of tasks to develop financial literacy among younger schoolchildren in lessons about the world around them. The purpose of the study is to theoretically substantiate and experimentally test the effectiveness of using a set of tasks to develop financial literacy among primary schoolchildren in lessons about the outside world. The objectives of the study are to reveal the essence of the process of developing financial literacy among primary schoolchildren; consider methods of developing financial literacy in the lessons of the surrounding world; to test tasks for developing financial literacy in younger schoolchildren in lessons about the world around them. The research methods include analysis of psychological, pedagogical, methodological literature, observation, and conversation. The analysis of the results of experimental and practical work

on the formation of financial literacy showed the effectiveness of using and adding a set of tasks in the lessons of the surrounding world.

Значение составления студентами хронологических таблиц в рамках курса «История зарубежной музыки»

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Ключевые слова и фразы: двухпрофильное обучение; история музыки; педагогический вуз; программа бакалавриата; студенты; хронологические таблицы.

Аннотация: Цель исследования – определить значение составления студентами хронологических таблиц по творчеству композиторов в рамках изучения курса «История зарубежной музыки» в педагогическом вузе. Для решения поставленной цели были определены следующие задачи: выявить специфику преподавания истории музыки в педагогическом вузе; проанализировать существующие особенности изучения курса «История зарубежной музыки»; раскрыть специфику составления хронологических таблиц для определения роли композитора и значения его творческого наследия в развитии музыкального искусства; обозначить значение хронологических таблиц в рамках изучения курса «История зарубежной музыки». Гипотеза исследования: составление студентами хронологических таблиц в рамках курса «История зарубежной музыки» способствует более углубленному изучению материала и является одним из необходимых контролирующих средств при изучении дисциплины. В ходе исследования использовались эмпирические, теоретические и общелогические методы: наблюдение, обобщение, метод теоретического анализа. Результаты поисковой работы позволили систематизировать теоретический материал по научно-методическому обеспечению процесса изучения истории зарубежной музыки, определить роль составления хронологических таблиц в музыкально-образовательном процессе, выявить значение составления студентами хронологических таблиц в педагогическом вузе.

The Electronic Textbook on the Discipline “History of Foreign Music” for Students of a Pedagogical University

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Key words and phrases: foreign musical culture; history of music; educational process; pedagogical university; students; electronic textbook.

Abstract: The purpose of the study is to reveal the advantages of an electronic textbook when students study the discipline “History of Foreign Music” at a pedagogical university. To achieve this goal, the following tasks were identified: to analyze the existing forms of textbooks on the history of music, to consider the features of electronic and printed educational publications when students study the discipline “History of Foreign Music”, to identify the priority qualities of electronic textbooks when students study the discipline “History of Foreign Music” “at a pedagogical university. The research hypothesis is as follows: the use of an electronic textbook when students study the discipline “History of Foreign Music” has significant advantages for the accumulation of musical listening experience. The study was carried out using theoretical and empirical research methods: analysis of scientific and methodological support, specification, comparison, generalization of teaching experience and educational methodological developments, pedagogical observation. In the process of search work, the theoretical material on scientific and methodological support for the process of studying the history of foreign music was systematized, the features of printed and electronic educational publications were revealed, and the advantages of an electronic textbook were highlighted when students studied the discipline “History of Foreign Music”.

Innovative Methods of Rehabilitation after Stroke

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Key words and phrases: stroke; rehabilitation therapy; neuroplasticity; rehabilitation medicine; innovative methods; treadmills; virtual reality; LOCOMAT system.

Abstract: The article analyzes innovative methods of rehabilitation therapy for patients who have suffered a stroke. It is assumed that the impact of the latest means of rehabilitation medicine on the rehabilitation of people who have suffered the acute phase of a stroke can be the effective use of treadmills with weight support and virtual reality mechanisms in the process of restoring the motor-skeletal system of patients. Analyzing studies of the human central nervous system, we can state the effectiveness of a number of innovative rehabilitation therapies in the rehabilitation program of patients who have suffered a stroke.

Features of the Introductory Practice: Botany (Plant Morphology)

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Key words and phrases: higher school; introductory practice; educational activities; students; abilities; skills; botany; plant morphology; excursions; biomorphological analysis; herbarization.

Abstract: The purpose is to study the features of conducting introductory practice on plant morphology. The research tasks are to develop the structure of the excursions, thematic planning and content. The research hypothesis is as follows: introductory practice in plant morphology contributes to the formation of professional competencies in the discipline "Biodiversity Science: Botany". The research methods are theoretical, route-excursion, observations, identification of plants. The results are as follows: the role and objectives of introductory practice on plant morphology are determined, the results of the study of flora and vegetation are presented.

Development of Attention of Younger Schoolchildren through Neurogames in Educational Activities

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Key words and phrases: attention; neurogames; junior schoolchildren.

Abstract: The purpose of the work is to substantiate the possibility of using neurogames as a means of developing attention in primary schoolchildren. The objectives of the study determine the essence of the concept of "attention" and the content of its structural components, reveal the features of attention and establish the possibility of using neurogames to develop the attention of primary schoolchildren. The hypothesis is that the process of developing the attention of younger schoolchildren will be effective if neurogames are used during educational activities. The research methods are the study and analysis of scientific literature, a pedagogical experiment with subsequent analysis of the data obtained. According to the results of the study, it was revealed that neurogames are excellent for the development and concentration of attention of students, since they attract with their brightness and unusualness.

Assessment of Stress Levels in First-Year Students

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Key words and phrases: stress; stress resistance; assessment; diagnosis.

Abstract: The purpose of the article is to determine the signs of stress formation and analyze the level of stress resistance of students. The research methods include the methods of pedagogical diagnostics: observation, questioning, survey, testing, analysis of scientific literature, mathematical methods for processing the information received. The results are as follows: more than half of the students had an average level of stress (54 %), low – 42 % and 4 % – high. The level of stress is above average, but the younger generation knows how to cope with it, stress resistance is 42 %, i.e. young people are quite successful in overcoming continuous stress in their personal and academic lives.

Teaching Mathematical Modeling to Students in Grades 7–9 in the Process of Solving Word Problems

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Key words and phrases: text (plot) problems; OGE in mathematics; mathematical modeling; teaching mathematical modeling; problem solving.

Abstract: Problem solving is the most important type of educational activity, during which mathematical knowledge, skills and abilities are acquired. Text problems largely guide and stimulate the educational and cognitive activity of students. In modern society, in which the mathematization of sciences is taking place, one of the methods for increasing the level of mathematical education is students' mastery of the method of mathematical modeling. Modeling is widely used in various fields of human activity, and schools should prepare students for this in an accessible way. All of the above determines the relevance of the topic of our research. The purpose of the study is to develop methodological recommendations for teaching mathematical modeling to students in grades 7–9 in the process of solving word problems. To achieve this goal, the following tasks were solved: basic concepts related to the process of mathematical modeling were identified; the methodology for solving word problems in grades 7–9 was studied; the materials of the main state exam in mathematics were analyzed for the inclusion of word problems and educational and methodological literature on the research topic. The hypothesis of the study is that the developed methodological recommendations will contribute to teaching mathematical modeling to students in grades 7–9 in the process of solving word problems. The following methods were used in this study: analysis, synthesis, comparison, generalization, modeling. The result of the study is the developed methodological recommendations for teaching mathematical modeling to students in grades 7–9 in the process of solving word problems. The results are practice-oriented.

The Formation of Cognitive Universal Learning Skills in Students of Grades 7–9 in the Process of Studying the Course “Probability and Statistics”

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Key words and phrases: cognitive universal learning skills; probability theory; mathematical statistics; training course “Probability and Statistics”; system of tasks.

Abstract: Strengthening the role of the probabilistic-statistical direction and the introduction of a new educational course “Probability and Statistics” into the subject “Mathematics” is justified by the requirements of the third generation standard on increasing the functional literacy of schoolchildren. Thus, the problem of forming cognitive universal learning skills for students in grades 7–9 in the process of studying the course “Probability and Statistics” is relevant. The purpose of the study is to develop a system of tasks for the formation of cognitive universal learning skills for students in grades 7–9 in the process of studying the course “Probability and Statistics”. To achieve the goal, the following tasks were solved: the features of teaching within the framework of the educational course “Probability and Statistics” for students in grades 7–9 were characterized; educational and methodological literature on the research problem was analyzed; a system of tasks has been developed for the formation of cognitive learning skills for students in grades 7–9 in the process of studying the course “Probability and Statistics”. The research hypothesis is that the developed system of tasks will allow the formation of cognitive universal learning skills for students in grades 7–9 in the process of studying the course “Probability and Statistics”. The following methods were used in this study: analysis, synthesis, comparison, generalization, modeling. The result of the study is a developed system of tasks for the formation of cognitive universal learning skills for students in grades 7–9 in the process of studying the course “Probability and Statistics”. The results are practice-oriented.

The Analysis and Characteristics of the Initial Standards of BGTO Norms in Karelia in the 1930s

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Key words and phrases: All-Union physical training complex “Be ready for work and defense”; BGTO; norms; 1930s; tests.

Abstract: In the Karelian Autonomous Soviet Socialist Republic (KASSR), which in the pre-war years existed from December 5, 1936 to March 31, 1940, in 1938 the first standards of the All-Union Physical Education Complex “Be ready for work and defense” were published and implemented (BGTO). The purpose of the article is to analyze the quality and quantity of BGTO standards in the KASSR at the end of the 1930s. The main objectives of this paper are to study the characteristics and types of sports of the original BGTO complex of the 1930s in the Republic of Karelia, to analyze the quality and quantity of standards included in the BGTO, and further compare with the modern organization of similar activities. The main research methods are theoretical analysis and synthesis of scientific and methodological literature, research of archival materials. The results of the study based on the results of studying archival data allow us to draw the appropriate conclusions that the BGTO standards in Karelia in the 30s. very diverse, compiled professionally and with high quality.

Research and Analysis of Monitoring and Evaluation of the Quality of Education in the Undergraduate Program in Local Higher Education Institutions

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Key words and phrases: quality of teaching; monitoring; grade.

Abstract: In the era of big data, the focus of local higher education undergraduate education institutions should be on the ability to effectively use big data technology to improve the quality of classroom learning. This article is devoted to the strategy for creating and evaluating a system for monitoring the quality of education in the context of big data technology. The article explores the process of creating this system based on big data technology, with the aim of providing theoretical guidance and practical support to local higher education institutions to improve the quality of learning.

Features of Training Foreign Specialists in Russian Universities in the Post-Soviet Period

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Key words and phrases: training of foreign specialists; foreign students; post-Soviet period; foreign training centers.

Abstract: The article examines changes in the system of training foreign students in the first phase of the post-Soviet period, from 1991 to 2000. The purpose of this article is to consider the main changes that occurred in the system of training foreign specialists in the post-Soviet period, which influenced its further development. The objectives are to analyze the impact of socio-political changes on the system of training foreign specialists in Russian universities; identify the main results of policy in the field of international cooperation in the field of education; identify emerging opportunities for expanding cooperation in the field of education, which became the basis for the next phase of development of the personnel training system for foreign countries. The following methods were used during the study: comparative analysis, synthesis, generalization and interpretation of scientific data. The result of the study was a generalization of the experience of training foreign specialists in the post-Soviet period.

Features of Organizing the Training of Foreign Specialists in Russian Universities in the 2000s

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Key words and phrases: foreign student; Bologna process; international cooperation; distance education.

Abstract: The article examines changes in the system of training foreign students in the second phase of the post-Soviet period, from 2000 to 2011. The purpose of this article is to consider the main changes that occurred in the system of training foreign specialists in the 2000s, which influenced its further development. The objectives are to analyze the impact of socio-political changes on the system of training foreign specialists in Russian universities; identify the main results of policy in the field of international cooperation in the field of education; to identify emerging opportunities for expanding cooperation in the field of education, which became the basis for the next phase of development of the personnel training system for foreign countries, to identify the features of organizing the training of foreign specialists in the 2000s. The following methods were used during the study: comparative analysis, synthesis, generalization and interpretation of scientific data. The result of the study was a generalization of experience and identification of features of the organization of training of foreign specialists in the 2000s.

Study of the Reform of Teaching the Course “Color” for Bachelor Students of Oil Painting

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Key words and phrases: oil painting; creation; training reforms.

Abstract: Traditional methods of teaching oil painting can no longer meet the needs of modern students and need to be reformed. This article examines reform in teaching color courses for oil painting students in colleges and universities. The goal of the reform is to significantly increase the artistic level and creative potential of students, and the task is to enable students to independently create artistic oil paintings. The hypothesis of the study is that emotional expression, artistry and emphasis on individuality have a positive effect on students' creativity, and the result of the study is that this teaching

method can help students develop a unique artistic language and style, as well as increase students' interest and motivation to learning, give new ideas and new methods to improve the comprehensive quality and creative potential of students.

**The Formation of Digital Skills of Students of the Specialty
“Information Systems and Programming” in Conditions of a Technology Park
of Universal Pedagogical Competencies**

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Key words and phrases: digital skills; secondary vocational education; Technopark of universal pedagogical competencies; interactive technologies; remote technologies.

Abstract: The purpose of the study is to theoretically substantiate and develop methodological recommendations for the formation of digital skills of students in the specialty “Information Systems and Programming” in the conditions of the Technopark. The purpose of the study identified the following tasks: to clarify the definition of the concept of digital skills and describe their types, to consider the capabilities of the Technopark in developing digital skills of students of secondary vocational education and to formulate appropriate methodological recommendations, to test the developed methodological recommendations. The research methods include analysis of scientific and methodological literature, observation, generalization, experiment. The research hypothesis is based on the assumption that if students of the specialty “Information Systems and Programming” are trained in disciplines of the core cycle using the capabilities of the Technopark, this will increase the level of development of their digital skills. As a result of the study, a generalized definition of the digital skills of students of secondary vocational education was obtained, the types of digital skills of students in the specialty “Information Systems and Programming” were determined, and the capabilities of the Technopark in the formation of these skills were described. The study also provides experimental confirmation of the effectiveness of the proposed methodological recommendations.

**Sociological Analysis of Professional Self-Determination of Students
in the Northern Region**

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Key words and phrases: professional self-determination; students; northern city.

Abstract: The article examines students as a certain type of social community; an interpretation of the concept of “professional self-determination” is given; a sociological analysis of the professional self-determination of students in the northern region is given.

The purpose of the article is a sociological analysis of the professional self-determination of students in the northern region.

The objectives of the study are to analyze existing and identify new opportunities in the methodological content of the concept of “professional self-determination”; present professional self-determination as a social phenomenon and social process, identify its features from the point of view of various sociological approaches; identify factors influencing the process of professional self-determination, reveal the specifics of professional self-determination of students in the northern region; formulate conclusions and practical recommendations for optimizing the professional self-determination of young people and further professional development.

The research hypothesis is based on the assumption that the analysis of the characteristics, trends and prospects of the process of professional self-determination of students in the northern region will make it possible to predict the level of mobility of young people in the conditions of modern

transformations, and will also ensure the effective development of personality in professional activities, taking into account both internal factors and external sociocultural conditions.

The research methods are the study of sociological, psychological and pedagogical literature, normative documents and generalization of experience on the research problem; the use of theoretical (comparison, analysis and synthesis, method of ascent from the abstract to the concrete, systematization) and empirical (survey, document analysis method) research methods.

The results are as follows: a sociological study was conducted in the period from 2021 to 2023 “Dynamics of social well-being of young people in the North: Ugra cross-section in the context of all-Russian trends”.

Theoretical and Methodological Approaches to Considering the Risks of Socio-Professional Adaptation of University Graduates

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Key words and phrases: social and professional adaptation; university graduates; social community; higher education.

Abstract: In the article, university graduates are considered as a certain type of social community; an interpretation of the concept of “socio-professional adaptation” is given; theoretical and methodological approaches to considering the risks of socio-professional adaptation of university graduates are described.

The purpose of the study is to analyze theoretical and methodological approaches to studying the risks of socio-professional adaptation of university graduates.

The objectives of the research are to study university graduates as subjects of socio-professional adaptation; determine the main theoretical and methodological approaches to studying the risks of socio-professional adaptation of university graduates; describe the features of social and professional adaptation of university graduates; develop practical recommendations to increase the adaptive potential of university graduates.

The research hypothesis is based on the assumption that the analysis of the risks of socio-professional adaptation of university graduates will make it possible to predict the level of mobility of graduates in the conditions of modern transformations, and will also ensure the effective development of the student’s personality in professional activities, taking into account both internal factors and external socio-cultural conditions.

The research methods include the study of sociological, psychological and pedagogical literature, normative documents and generalization of experience on the research problem; the use of theoretical (comparison, analysis and synthesis, method of ascent from the abstract to the concrete, systematization) and empirical (survey, document analysis method) research methods.

The results are as follows: a sociological study was conducted in the period from 2021 to 2023 “Dynamics of social well-being of young people in the North: Ugra cross-section in the context of all-Russian trends”.

On the Problem of Developing Communicative Competence among International Students in the Process of Teaching Russian at a Music University

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Key words and phrases: foreign students; music university; language training; communicative competence.

Abstract: The purpose of the study is to determine ways of developing communicative competence

among foreign students studying at Russian universities. The research objectives are to determine the content, methods, forms and means of teaching them the Russian language, developing communication skills both in the professional sphere and in everyday life. The research hypothesis is as follows: specially developed content of language training, various forms and active teaching methods will allow foreign students to develop communicative competence. Research results are as follows: the proposed method of developing communicative competence among foreign students of music universities allows them to accelerate their adaptation and develop social interaction skills, which significantly increases the effectiveness of learning. Research methods: theoretical analysis of the works of scientists and teachers, generalization of the results obtained.

Problems of Readiness of Preschool Teachers for Digital Transformation of Culture

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Key words and phrases: preschool education; digitalization; professional competencies; digital competencies; digital educational environment.

Abstract: The modern process of digitalization of culture is a rather contradictory process, which creates a number of problems that require solutions. One of them is the training of teaching staff in preschool institutions who are motivated to constantly improve digital competence and to study the influence of the digital environment on the socialization of preschool children and their health. The purpose of this article is to identify contradictions and problems in the readiness of preschool teachers for digital transformations of modern culture. The main research methods were the method of analytical review, analysis, comparison, and generalization. The results of the study showed that teachers of preschool institutions are not fully prepared for the digitalization of education. One of the main reasons is the lack of development of mechanisms for motivating and regulating teaching activities in the context of digitalization of culture as a whole.

Modeling the Research Practices of Resident Doctors to Develop Their Research Competence

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Key words and phrases: higher medical education; research competence; research practices; continuing education; residency training; innovative technologies; modeling.

Abstract: The purpose of the paper was to study the pedagogical modeling of research practices of residency students as an organization of an effective pedagogical condition for the development of their research competence. Hypothesis: the formation of research competence of medical university residency students will be effective if, during the training process, situations of research activity are simulated, suggesting the development of motivation for the systematic use of research strategies and methods in the course of solving professional problems, experience in implementing research medical projects, when the typology of these situations corresponds the main professional functions of a specialist. The objectives are to show the manifestation of research competence of residents in specific professional situations; reveal the specifics of modeling situations of research activities of residents; argue for the use of pedagogical modeling of research practices in the development of research competence of residents. The research methods include the analysis of scientific literature on the research topic, generalization of teaching experience, content analysis, deduction, and modeling. The results are as follows: the hypothesis was confirmed, a conclusion was made about the need to integrate the achievements of medical science and prepare relevant medical personnel for research activities, capable of not only using new equipment in their work, but also taking part in modeling new methods of diagnosis, treatment, prevention of new diseases, passing stages of modeling, comparison, interpretation of results.

The Influence of Subculture on the Process of Correction in Prisons

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Key words and phrases: correctional institution; convicts; subculture; criminal subculture; resocialization; correction of convicts; antisocial behavior; educational work.

Abstract: Since crime has existed, there has been such a phenomenon as a criminal or criminal subculture. Today, there is a problem of its negative impact on the resocialization of convicts, as well as on the process of effective implementation of the state's penal policy. The article notes the negative aspects of subcultural influence, as well as preventive measures to combat it. The hypothesis is as follows: the presence of a criminal subculture negatively affects the correction of those sentenced to imprisonment. Purpose: to study the influence of subculture on the process of correction of convicts in prisons. The objectives are to develop the concept of a criminal subculture, to highlight the characteristic features inherent in the criminal subculture of convicts, to develop measures to neutralize the criminal subculture and the prison subculture. The methods are as follows: the study is based on a dialectical approach to the study of social processes and phenomena. It used traditional methods for the sciences of penal law and criminology - analysis and synthesis, comparative legal, formal legal. The result of the research is the identification of characteristic features inherent in the criminal subculture of convicts, and an analysis of the influence of the subculture on the process of correction in places of deprivation of liberty.

Peculiarities of Manifestation of Motivation to Master a Profession among Students of a Pedagogical University

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Key words and phrases: motivation; professional motivation; students of a pedagogical university.

Abstract: The article is devoted to the problem of developing motivation for mastering the teaching profession among university students. The purpose of the study is to identify and substantiate the characteristics of the manifestation of the desired motivation among future teachers in the process of training at Chuvash State Pedagogical University named after I.Ya. Yakovlev. The hypothesis has been formulated that students' high motivation to master the future teaching profession is to a certain extent determined by the presence of stable personal needs to engage and improve in their chosen field of activity. The hypothesis was tested using the following research methods: studying psychological and pedagogical literature, questioning students and talking with them, observing their activities in the educational and extracurricular process. It is concluded that the motivation to master the profession among future bachelors of pedagogical education is characterized by instability and is at the stage of formation. The need to strengthen the motivational component of professional training for students at a pedagogical university is emphasized.

Interactive Learning in the Preparation of Future Vocational Teachers

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Key words and phrases: active learning methods; interactive training; brainstorm; educational process; vocational education teacher; professional education; forms of training.

Abstract: The purpose of the article is to identify the difficulties that arise in the process of interactive learning and identify possible ways to overcome them. To achieve the goals, theoretical

research methods were used in the analysis of scientific and methodological literature on the study of the problem and personal pedagogical experience in solving the problems. The research hypothesis is based on the assumption that the use of interactive teaching methods will help improve the quality of training of future specialists. The result of the article is recommendations for the use of interactive methods in their teaching.

Studying the Module “Artificial Intelligence Systems” by Bachelor Students of Pedagogical Universities

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Key words and phrases: artificial intelligence; training module; competencies; programming.

Abstract: The purpose of the article is to study the problems of including a new educational module for studying the fundamentals of artificial intelligence in the curricula of pedagogical universities. To achieve the goal, the methodological aspects of studying the discipline “Fundamentals of Python Programming ” by bachelors of pedagogical universities are described. When conducting the study, methods of analysis, synthesis, comparison and generalization were used. As a result, the relevance and timeliness of introducing the study of the module under study for bachelor students of pedagogical universities is shown.

Features of Using the Accelerator through Training of Future Teachers

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Key words and phrases: accelerator; accelerator “Zabava”; project; startup; future teachers; Internet technologies; blockchain technology.

Abstract: The purpose of the article is to consider the features of using the accelerator in the training of future teachers. The research objectives are to consider the disclosure of the concept, the role of the accelerator in the educational process of students of the pedagogical direction, the program, stages of participation, features of startup projects and the use of cryptocurrency. The research hypothesis is that the effectiveness of training a team of future teachers will significantly increase due to their participation in the accelerator program. Research methods: analysis of theoretical and methodological literature on the problem. The results achieved are as follows: the features of training teaching staff through their participation in the “Fun” accelerator program were considered.

The Correlation Study of the Dependence of Student Performance on Teacher’s Personality

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Key words and phrases: foreign language; correlation research; student performance; technical university.

Abstract: The article presents the results of a study of the influence of the personality of the leading teacher on the assessment of students at a technical university using the example of learning a foreign language. The purpose of the study is to test the working hypothesis that there is a correlation between the personality of teachers and students’ grades at intermediate certification. The following tasks are being solved: based on data on the performance of students at the National Research University “MPEI” in the second semester of the 2022/2023 academic year, a correlation matrix is constructed between the semester and credit components of the discipline and an analysis of the relationship between teachers

and student grades is carried out. The results show that there is no correlation between the personality of the teacher and student grades, which refutes the working hypothesis of the study. The following methods of correlation analysis are used in the work: construction of a correlation matrix and graphical methods. The practical significance of this study lies in determining the lack of relationship between the personal characteristics of teachers and students' assessments in a foreign language at MPEI, which makes it possible to make recommendations for improving the educational process and increasing its effectiveness.

Development of Intellectual Qualities in the Educational Process of a University in Technical Fields

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Key words and phrases: educational process; education; bachelors of technical areas; intellectual qualities; interactive method; cognitive activity.

Abstract: The purpose of the study is to consider the relevance of the development of intellectual qualities in the educational process of a university in technical fields. The objectives are to analyze the experience of scientific developments in the context of the educational process to improve the quality of training of specialists in technical areas; highlight meaningful theoretical and methodological solutions for the development of intellectual qualities. The scientific hypothesis is as follows: the introduction of an interactive method into the educational process will ensure more effective formation of intellectual qualities. The methods were the scientific developments of scientists who considered this issue. Achieved results: the approach used in the educational process of the branch of Tyumen Industrial University in Nizhnevartovsk helps students consolidate their knowledge and skills, develops skills in analyzing the results obtained, generalizing and systematizing educational material.

Improving the Professional and Pedagogical Activities of College Teachers during the Inter-Certification Period

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Key words and phrases: improvement; teacher; pedagogical activity; professional pedagogical activity.

Abstract: The purpose of the article is to analyze the basic concepts of the study. The research hypothesis is based on the assumption that the provisions discussed in the article will contribute to improving the professional and pedagogical activities of college teachers. The results of the study are as follows: the characteristics of the types of professional and pedagogical activities of college teachers are determined, the basic requirements of regulatory documents for the professional activities of a teacher are considered. Particular attention is paid to determining the content of the professional and pedagogical activities of a college teacher during the inter-certification period.

Fundamentals of Patriotic Education of Students in Teaching Activities

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Key words and phrases: patriotic education; pedagogy; patriotism; methods of patriotic education; technologies of patriotic education; components of patriotic education; teacher.

Abstract: The purpose of this article is to study the foundations of patriotic education of students in modern pedagogical practice. The objectives of the study were: the analysis of modern approaches to patriotic education of students, consideration of methods and technologies of patriotic education and their applicability in the educational process. The research hypothesis is that modern approaches to patriotic education of students contribute to the formation of a patriotic citizen. The main research method was a comparative analysis of various approaches to patriotic education in educational institutions. As a result of the study, modern approaches were analyzed, the main classification categories of patriotic education were identified and analyzed.

Differences in Physical Education Systems in Higher Education Institutions in the USA and Russia

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Key words and phrases: physical education; physical culture; education; sports; students; university.

Abstract: The purpose of this work is to compare the American and Russian systems of physical education in higher educational institutions and to identify on its basis the advantages, disadvantages and ways of development. The object of the study is the physical education system: American – on the general basis of higher educational institutions in the USA, Russian – through the example of the North-Eastern Federal University named after M.K. Ammosov (Yakutsk). To achieve the above goals, tasks were identified such as: studying scientific literature on this issue, comparing the physical education systems of the USA and Russia, conducting a comparative analysis and identifying development vectors. The research hypothesis is that the development of the Russian physical education system for students is facilitated by the study of the positive experience of foreign countries. The study used theoretical methods such as: comparison, analysis, systematization and generalization. Based on the results of the study, similar and distinctive features of the two systems were identified, and ideas were developed for improving the Russian system of physical education.

On the Issue of Students' Interest in Yakut National Sports

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Key words and phrases: national sports; students; physical education; survey; physical education and sports interest.

Abstract: The purpose of the study is to conduct a sociological survey of students regarding their interest in Yakut national sports. The tasks are to study the research problem, draw up survey questions, and discuss the survey results. The research methods are theoretical analysis, questioning, systematization and generalization of the data obtained. Based on the results of the survey, it was revealed that Yakut national sports do not lose their relevance among modern youth.

Managerial Competence of a Sports Coach in Martial Arts as a Component of Professional Competence of a Teacher

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Key words and phrases: managerial competence; martial arts coach; professional competence of a teacher.

Abstract: The article examines the managerial competence of a sports coach in martial arts as the main component of the professional competence of a teacher, describes the goals of management, awareness of a managerial task or problem, development and decision-making, evaluates the activity of the object of management, as well as the qualities and reflected sports and coaching experience that ensures the effectiveness of management process. The features of the managerial competence of a sports coach in martial arts and martial arts are indicated, namely, specific management goals aimed simultaneously at the development of cooperation and competition, specific sources of information related to the functioning of the sports federation. The purpose of this study is to analyze the conditions for identifying the specifics of managerial competence of a martial arts coach in accordance with the characteristics of their professional multi-level and multi-parametric activities in modern conditions. In the course of this study, we used the following methods: analysis of scientific and methodological literature, monitoring of the conditions under which the managerial competence of a sports coach in martial arts develops, as a component of the professional activity of a teacher.

**The Formation of Professional Competencies
of Bachelor Students of a Pedagogical University in the Context of Implementation
of the “Core of Higher Pedagogical Education”**

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Key words and phrases: competencies; professional competencies; Teacher Education; “Core of Higher Pedagogical Education”; subject-methodological module “Informatics”.

Abstract: This article is devoted to an urgent problem of modern higher education – the formation of professional competencies of future teachers. The purpose of the article is to develop theoretical and methodological approaches to the formation of professional competencies of bachelor students of a pedagogical university in the context of the implementation of the “Core of Higher Pedagogical Education”. The study sets the following objectives: to consider the methods and principles of developing professional competencies of future teachers as part of the study of the subject-methodological module “Informatics”; develop practice-oriented and project tasks aimed at developing their professional competencies. The main research methods were: analysis of regulatory documents and scientific and methodological literature; generalization of one’s own practical experience. The result of the study is a developed methodology for developing professional competencies of bachelors of a pedagogical university, which is implemented through the inclusion of practice-oriented and project-based tasks in the educational process.

On the Problem of Constructing a Model of Competencies for a Social Work Specialist

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Key words and phrases: university graduate; competency-based approach; model of specialist competencies; social work.

Abstract: The purpose of the study is to propose a model of specialist competencies for developing the content of his professional training. The research objectives are to analyze approaches to building competency models of workers, to develop a model of competencies of a social work specialist. The research hypothesis is as follows: the presence of a competency model will improve the effectiveness of professional training of future specialists. The research results include a model of competencies for a social work specialist has been developed. The research methods are inductive-deductive analysis of sources and regulations, and design methods.

The Formation of Intercultural Skills among Secondary School Students within the Framework of the “New Standard of the Russian Language Curriculum”

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Key words and phrases: developing intercultural skills; Russian language teaching; “New standard of the Russian language curriculum”.

Abstract: Learning foreign languages should not be limited to memorizing and reading textbooks. We must recognize that the level of foreign languages is a complex of knowledge, and with only a large amount of vocabulary and grammatical knowledge, it is impossible to become a successful student. On the contrary, lack of cultural knowledge often becomes a difficulty and obstacle to understanding and expressing thoughts. The purpose of this article is to emphasize that in the process of teaching the Russian language, teachers should pay special attention to enriching students’ intercultural knowledge and developing their ability to communicate interculturally. The purpose of this article is to show the need to use background knowledge in the learning process. A Russian language teacher should pay attention to cultural background knowledge: historical, political, knowledge of social customs and ways of thinking. Proper penetration into the culture of a Russian-speaking country will provide an opportunity to develop intercultural awareness and intercultural literacy of students. The main method conveyed in this article is a combination of theory and practice. The practical results of this article are the development of the ability of intercultural communication in teaching the Russian language within the framework of the “New Standard of the Russian Language Curriculum”.

The Formation of Ecological Culture of Students by Means of a Foreign Language in the Context of Digital Transformation of Education

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Key words and phrases: personalization; digital transformation of education; environmental culture; foreign language; greening; digital textbook.

Abstract: The article discusses the conditions for the digital transformation of education within the framework of the formation of students’ environmental culture through the means of a foreign language using the digital textbook “Ecological Advertising Project”. The purpose of the study is to consider the conditions for the digital transformation of education for the formation of students’ environmental culture through the means of a foreign language based on the digital textbook “Ecological Advertising Project”. The objectives of the study are to consider the conditions for the digital transformation of education, including foreign language education, to analyze the digital educational and methodological complex “Ecological Advertising Project” as a means of developing the ecological culture of students using a foreign language in the information and digital environment of a non-linguistic university, to give recommendations for working with digital technologies, which can be used within the framework of the digital educational and methodological complex “Ecological advertising project”. The hypothesis of the study is the possibility of using the digital educational and methodological complex “Ecological Advertising Project” to form a high level of environmental culture of students through the means of a foreign language in the context of the digital transformation of education. The results obtained revealed a wide range of possibilities of the presented manual when familiarizing with the environmental situation to increase the level of environmental culture of the population.

Managing Continuing Education in a Digital Environment

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Key words and phrases: lifelong education; digitalization; modern technologies; digital environment; management.

Abstract: The purpose of this study is to determine the essence of the process of managing continuous education in the digital environment. In accordance with the set goal, the following tasks were formulated: to determine how the use of digital technologies affects the individualization of the educational process; describe the innovative nature of the modern system of continuing education; determine the relationship between lifelong education and the dynamics of the modern information society; consider the institution of mentoring as an important factor in the effective management of lifelong education. The research hypothesis is as follows: digitalization has a positive impact on the process of lifelong education through the use of electronic resources, online platforms, courses, constant updating of information, as well as the development of electronic devices (smartphones, tablets, laptops, etc.). Among the methods used in this study are the following: abstraction, classification, analysis, synthesis, content analysis, generalization. Particular attention is paid to digital tools, which currently represent one of the important factors determining the level of competence of teachers. Among them, online internships, cloud technologies, mentoring, interactive forms of training, as well as advanced learning technologies are mentioned. As a result, it was found that the digitalization of the education system has a beneficial effect on the continuous acquisition of knowledge; the use of electronic educational materials makes it possible to update the information contained in them, which as a result has a positive effect on future specialists in various fields of professional activity.

Innovative Strategy for Teaching the Russian Language in Secondary Schools as Part of the Implementation of the “New Standard of the Russian Language Curriculum”

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Key words and phrases: teaching the Russian language; innovation strategy; within the framework of the “New Standard of the Russian Language Curriculum”.

Abstract: The introduction of a new standard of the Russian language curriculum plays an active leadership role in the teaching of the Russian language in secondary schools, placing higher demands on the quality of teaching the Russian language. Deepening the reform of Russian language teaching based on innovation is the key to improving teaching efficiency. This article analyzes the need to promote innovation in teaching the Russian language in secondary schools. The main content of this article is a discussion of the strategy for innovative development of teaching the Russian language in secondary school. The main research method is the method of combining theory and practice. Results of the study: strengthening the basic education system and improving student literacy; focusing on a comprehensive analysis of “teaching-learning-assessment” with the involvement of information technologies to optimize the reform of teaching the Russian language in secondary schools; promoting the teaching of the Russian language in secondary schools in a new era, improving and developing in accordance with the requirements of the time; providing a reliable guarantee of effectively increasing the level of Russian language proficiency among students.