
АННОТАЦИИ

Abstracts

Application of Neural Networks for Sentiment Analysis of Text Data in Social Media

D.P. Aleinikov

East Siberian Institute of Internal Affairs, Irkutsk

Key words and phrases: CNN; LSTM; analyze data; text categorization; text classification; neural networks.

Abstract: The aim of the study was to identify the possibilities of using neural networks to analyze the sentiment of text data in social media. To achieve the goal, some tasks were consistently set and completed, in particular, various architectures of neural networks, such as LSTM, bidirectional LSTM, CNN, MLP were considered. A hypothesis was put forward about the possibilities of high-priority determination of the sentiment of text data in social media based on the use of fully connected neural networks. The methods of this study are based on the use of neural network models for sentiment analysis of text fragments. Experiments using two text vectorization algorithms – Word2vec and BERT on text data extracted from VKontakte social networks. As a result, the Emotional Evaluation Index of posts reached the level of 84 %.

A Formalized Approach to Assessing the Level of Trustworthiness of Critical Privacy Employees

S.V. Glukhareva, A.A. Shelupanov, M.M. Nemirovich-Danchenko

Tomsk State University of Control and Radioelectronics, Tomsk

Key words and phrases: critical information infrastructure; personnel security system; personnel security; level of trustworthiness; trustworthiness.

Abstract: The article is devoted to a formalized approach to assessing the level of trustworthiness of critical information infrastructure (CII). Currently, security issues, including national ones, are very acute. The employees of the enterprise themselves are the source of the threat. The purpose of the study is to develop a new system for assessing employees to improve the level of personnel security of the enterprise. The research objectives are to formalize the approach of reliability; to develop a model for determining the level of reliability; to apply the developed method, model, methodology for assessing the level of reliability of CII staff is shown. The hypothesis of the study is that the developed models, algorithms, methods, techniques give more accurate feedback from the CII staff. The research methods are analysis of literary sources, formalization of concepts, questioning, testing, case method, competence assessment method, expert methods, and decision-making methods. The results are as follows: the effectiveness of the methodology was revealed, an accurate assessment of CII staff was formed, an individual approach for personnel decisions was provided.

Decision Support in Management of Retraining and Advanced Training of Education Workers

D.Yu. Evsyukov¹, D.N. Klesov², V.A. Lomazov^{1, 2}, T.V. Gostishcheva³

¹ Belgorod State National Research University, Belgorod;

² Belgorod State Agrarian University named after V.Ya. Gorin, Belgorod;

³ Belgorod University of Cooperation, Economics and Law, Belgorod

Key words and phrases: innovative enterprise; training; decision support; discrete optimization; machine learning.

Abstract: The study is devoted to the problem of finding staffing for an innovative economy. The aim of the study is to build decision support procedures for the formation of group employees of the enterprise, leading training in retraining programs, based on real results, as well as the production need for qualified specialists. A vertical scale of indicators has been constructed, the lower tier, in which there are data on the predominance of the average level of increased detail. Non-linear relationships between the indicators of the increase in tiers are set by neural networks. The distribution of employees by groups (subgroups) of specialization (in-depth specialization) is based on the solution of the problem of a binary linear problem. In this case, preference is given to a decision that makes a decision based on preferences.

Principles of Formation of Qualification of IT Project Manager

P.M. Krovyakov

Moscow

Key words and phrases: IT manager; urban passenger transport; manager skills; justification for the formation of qualifications; ways of formation; implementation result; projects are complex; success of an IT manager.

Abstract: The purpose of the study is to show the initiative of a professional level of project IT managers on the example of organizing public transport in a large metropolis. The research objectives are to define the qualification of an IT project manager; to identify the specifics of the formation of the qualification of a project IT manager; to take into account the quality of qualification of an IT manager; to identify ways to form the qualification of an IT project manager; to present the skills of an IT project manager implemented in complex projects of organizing public transport in a large metropolis; to show the result of the implementation of the formation of the qualification of a project IT manager. The research hypothesis is as follows: improving the skills of IT project managers to the greatest extent is possible in the process of implementing solutions to improve the organization of public transport in a large metropolitan area. The research methods are analysis, synthesis, comparison, protocols, and systematic approach. The results of the study are as follows: implementation of a set of projects (more than 100) for digitalization and innovation in the surface urban passenger transport in Moscow.

On the Solution of a Boundary Value Problem for an Elliptic Crack of a Quasi-homogeneous Geomassif

A.V. Manko, E.A. Muravyova

National Research Moscow State University of Civil Engineering, Moscow

Key words and phrases: geomassif; border conditions; boundary task; math modeling; rock mass; elliptical cracks.

Abstract: The purpose of this study is to choose a solution to the boundary value problem of a hypothetical crack in a quasi-homogeneous geomassif for mathematical modeling. The task consists in the theoretical study on the method of solving a boundary value problem to identify an elliptical crack in

a brittle rock mass. The research hypothesis is as follows: the results of the study of boundary conditions will help in solving problems. The unexpected research method was used for the solution of a boundary value problem by partial differential equations. The achieved results are as follows: recommendations on the possibility of mathematical modeling of cracks and rock bursts are given.

A Study of Passive Placement Methods for Single-Station Systems

A.Yu. Unger

MIREA – Russian Technological University, Moscow

Key words and phrases: azimuth; antenna; passive placement system; direction finding; Kalman filter; Doppler effect.

Abstract: The purpose of this study is a brief analysis of detection methods in single-station sources, which are used to accurately determine the location and selection of physical objects. The research hypothesis is a comparative analysis of various object detection objects of single-station systems. The research methods are the analysis of literature sources that are used in research in the field of radar, expand theoretical knowledge for practical use in the American and civilian fields. The results are as follows: a review of methods and algorithms for calculating simple mathematical equipment in the field of designing passive technologies for single-station systems.

The Development of an Adaptive Neural Network System for Quality Control of the Weld

T.Yu. Tsibizova, Abderrazek Abdessellem, D.D. Kapitonov

Bauman Moscow State Technical University (National Research University), Moscow

Key words and phrases: automatic welding; artificial neural networks; control of welding joints; machine learning; modeling in the MATLAB environment; convolutional neural network; digital image processing.

Abstract: The paper is devoted to the creation of a quality control system for a welding joint with an intelligent component using a convolutional neural network. In this paper, modern technologies for sensor control of welding complexes are considered. The general structure of the weld quality control system with an artificial intelligence model is shown. An intelligent welding seam control system for conducting an experiment using an installation for orbital welding of pipe circumferential joints with a welding head, a video camera, a laser scanner. Suggestions of quality control algorithms for a welded joint based on a neural network predictive model are made. Procedures for preparing a training sample, checking learning processes and a neural network model are given. A neural network model for quality control of a welded seam has been built. The results of modeling and testing neural network models in the MATLAB environment are presented.

The Kalman Filter Using Stochastic Data from the Summer Experiment

T.Yu. Tsibizova¹, A.O. Kupriyanov², I.V. Muratov¹

¹ Bauman Moscow State Technical University (National Research University), Moscow;

² Moscow State University of Geodesy and Cartography, Moscow

Key words and phrases: global navigation satellite system; inertial satellite system; linear Kalman filter; multifunctional autonomous measuring system; drift speed; stochastic characteristics of noise.

Abstract: The paper investigates the linear Kalman filter used to correct the unified navigation system. This system consists of an inertial navigation system corrected by the signals of the global navigation satellite system. Representation of the correction scheme is made. A summer experiment

was set up to study the stochastic characteristics that affect the accuracy of the estimate. Navigation equipment was installed on the balloon. The described test bench is a multifunctional autonomous measuring system. In the course of the experiment, a complex of measurements (inertial, ionospheric and according to the signal of the most navigational satellite systems) was created on an airborne balloon using modern general-purpose hardware and characteristics. Proposals for the results of processing the measurements made by the Kalman filter with a store of values of the covariance input matrices and noise measurements are made.

The Use of Artificial Intelligence in Robotics

Yu.A. Anikina, I.V. Ilyina, K.A. Moiseeva, I.A. Provornykh
Reshetnev Siberian State University of Sciences and Technologies, Krasnoyarsk

Key words and phrases: intelligent robots; artificial intelligence; robotization; robots.

Abstract: The purpose of the study is to investigate the intelligence of robots and identify the advantages and disadvantages of intelligent robots in various places. To achieve the goal, it is necessary to solve the problem: to determine the use of intelligent robots, to identify the advantages and their application in various applications. The hypothesis is based on the assumption that the application of intelligent robots can reduce the impact of human morbidity in many activities. In the course of the study, methods of analysis, synthesis, and modeling were used. Obtaining the results made it possible to identify and apply the use of robots.

An Automatic Train Control System Based on Artificial Intelligence

R.I. Bikbulatov, A.S. Marchenko
Kazan State Power Engineering University, Kazan

Key words and phrases: intellectual system; artificial intelligence; railway transport; motion control.

Abstract: The purpose of the study is to substantiate the need to use intelligent tools in the problems of optimizing the route in railway transport. The task of the study is to form a theoretical apparatus suitable for use in subsequent research related to the design and development of the system under consideration. The research methods were analysis, synthesis, generalization and systematization of knowledge of key aspects of the development and integration of artificial intelligence technology in train traffic control.

The aspects of the need for the development of intelligent systems in the transport sector are considered. The analysis of the issue of using artificial intelligence in railway transport has been carried out. The key directions of development of intellectualization on the railway are considered. The conditions and factors necessary for the development and integration of an intelligent system are given.

Modeling of Information Systems Processes in the Production of Medical Equipment

Yu.A. Gorlov
Bauman Moscow State Technical University (National Research University), Moscow

Key words and phrases: production automation; information system; product quality; process modeling; production optimization; production of medical equipment; resource management; digital transformation.

Abstract: The objectives of the study include the analysis of fast processes in the production of medical equipment, the identification of bottlenecks and the determination of their significance, as

well as the development of models of information systems for the production of medical equipment. The hypothesis of the article is that modeling of information system processes in the production of medical equipment can significantly increase production efficiency and increase the output of finished products. The research methods include data analysis, interviews with production employees, the use of mathematical models, and the development of software for modeling detection systems. The research results include the collection and successful analysis model of the production system of medical equipment, with regard to improving production efficiency and increasing the output of finished products. Bottlenecks in production processes were also identified and problems of their occurrence arose.

The Development of a Decision Support System for Choosing the Terms of Rent for Non-residential Real Estate Based on Optimal Models

E.S. Chernova
Kemerovo State University, Kemerovo

Key words and phrases: lease; communal payments; mathematical model; decision support system.

Abstract: The purpose of the article is to develop a model and a decision support system based on it for companies involved in the rental and management of non-residential real estate. It is assumed that the application of the mathematical purpose of a special choice of utility payment option within the framework of preferential rent allows the company to maximize the total income for all tenants. The research methods are methods of mathematical modeling, comparative and computational mathematics are used. A mathematical model has been built, which is a high estimate, where rent as a function of controlling the high income received by the company from leasing property for all funds during the year. An algorithm for solving the problem of implementation in the VBA language, as a result of the decision of the company to receive recommendations for the provision of rental services is proposed.

Scattering of Light by a Thin Layer Hexagonal Prism in the Rayleigh – Gans – Debye Approximation

K.A. Shapovalov
Krasnoyarsk State Medical University named after Professor V.F. Voyno-Yasenetsky, Krasnoyarsk

Key words and phrases: hexagonal prism; light scattering indicatrix; optical “soft” particles.

Abstract: An alternative general approach for obtaining an estimate of light scattering by optically “soft” ($|m - 1| \ll 1$, where m is the relative refractive index of particles) hollow two-layer particles in the Rayleigh – Gans – Debye (RGD) approximation, has been excluded. On the basis of such a measurement, measurements of light scattering by a thin-layer hexagonal prism (column) were obtained in the RGD approximation. The light-scattering indicatrix of an optical “soft” hexagonal prism with infinite wall depth is calculated in the RGD approximation in scalar form. In contrast to the previously obtained explicit manifestation in the RGD approximation, in the scalar result, a high probability arises when calculating the calculations of infinitely thin particles.

Creation of Digital Models of St. George’s Cathedral of the Yuryev Monastery Using the Results of Laser Scanning and Photogrammetry

K.A. Varenik, A.S. Varenik, D.D. Khramov, A.S. Chameev
Yaroslav-the-Wise Novgorod State University, Veliky Novgorod

Key words and phrases: laser scanning; cloud points; object of architectural heritage;

photogrammetry; digital information model.

Abstract: The purpose of the research is to create digital models of historical heritage objects with detailed information about architectural and design solutions. In this article, the object under study is one of the oldest surviving monuments of Russian architecture – St. George’s Cathedral of St. George’s Monastery in the city of Veliky Novgorod. In the course of the work, the task was set to obtain clouds using ground-based laser radiation and photogrammetry. Next, a polygonal texture and a parametric information model were built. The presence of a digital model of the cathedral allows for more efficient planning, carrying out restoration work, and conducting archaeological research.

Accuracy Criteria for Determining the Accuracy of Final Solutions from Control Samples

D.S. Dekhterev

*National Research Moscow State University of Civil Engineering, Moscow;
Yaroslavl State Technical University, Yaroslavl*

Key words and phrases: reinforced concrete structures; concrete class; coefficient variations; compressive strength; standard deviation.

Abstract: The construction of monolithic reinforced concrete buildings is unacceptable without quality control of concrete at the construction site. To assess the quality, various non-destructive and final instrumental methods are used. A special quality, stress when laying a concrete mixture, is a class of concrete in terms of compressive strength. The class of concrete is a statistical value and should be determined depending on the variability of strength indicators. The article discusses the main methods for obtaining an assessment of the accuracy of concrete, algorithms for determining the class of concrete in accordance with the use of regulatory documents of the Russian Federation, identifies equipment to achieve results and identifies the main estimates of assessments that are not always observed in practice by construction laboratories.

Features of the Use of Foundations on Wetlands

*O.M. Presnov, O.A. Lozovaya, A.I. Roslik, D.G. Zhytskaya
Siberian Federal University, Krasnoyarsk*

Key words and phrases: wetlands; engineering training; monolithic slab; piles; hard soils; peat; foundation.

Abstract: The following tasks were set: to describe the design of the foundation, which is most effective for arranging peaty spaces; to describe new inventions and utility models, operating principles suitable for use in the construction of wetland observations; to give a methodology for analyzing data on such soils. The hypothesis of this article is that the development of swampy observations is necessary in modern realities. The research methods are the use of scientific and popular sources, income analysis.

Methods for Assessing the Effectiveness of Panel Observations

K.P. Zubarev^{1, 2, 3}, P.K. Turovets¹

¹ *National Research Moscow State University of Civil Engineering, Moscow;*

² *Research Institute of Building Physics of the Russian Academy
of Architecture and Building Sciences, Moscow;*

³ *Peoples’ Friendship University of Russia, Moscow*

Key words and phrases: dust removal; positioning; snow cover; solar energy; solar panels; efficiency.

Abstract: The purpose of the article was to conduct a literary study on the application of solar energy. The prospects for the use of solar energy generators in adverse conditions are analyzed. An assessment was made of studies of panels on multi-apartment buildings for the most intensive power generation. We chose technologies for cleaning generators from snow and dust and its effect on heater power, according to a study of articles.

Modern Experimental Studies of Facade Panels

K.P. Zubarev^{1, 2, 3}, P.K. Turovets¹

¹ *National Research Moscow State University of Civil Engineering, Moscow;*

² *Research Institute of Building Physics of the Russian Academy of Architecture and Building Sciences, Moscow;*

³ *Peoples' Friendship University of Russia, Moscow*

Key words and phrases: passive house; performance; snow cover; solar energy; solar panels; efficiency.

Abstract: The study studied the economic and technical aspects of the use of solar panels. The purpose of the article was to conduct a literature review on modern research on the use of solar energy. The prospects for the use of solar energy generators in adverse conditions are analyzed. An assessment was made of studies on the orientation of solar panels on multi-family buildings for the most efficient power generation. The technologies for cleaning generators from snow and dust and its effect on the power of stations, according to the reviewed articles, are considered.

Microwave Drying of the Enclosing Structures of Buildings

I.E. Molostova, Yu.S. Ulyanova, T.S. Zhilina, K.V. Afonin
Tyumen Industrial University, Tyumen

Key words and phrases: analysis; fruits; microwave drying; walling.

Abstract: The aim of the paper is to study the method of microwave drying of buildings. The task of the study is to consider this method of drying external enclosing structures, to determine its advantages and disadvantages. The hypothesis of the study is that moisture dehumidification is most needed in the outer walls, where it accumulates as a result of introduction during the construction of the building, operation, due to capillary suction, exposure to atmospheric moisture and other less common factors. Excess moisture reduces the durability and thermal protection of buildings.

Using the method of analysis of microwave drying of capillary-porous materials, taking into account the peculiarities of the thermal and humidity conditions of fences, using the proposed methods for working with microwave equipment, the possibilities of removing moisture in various phases in the bearing part and in the heat-insulating layer were studied. The results obtained indicate the need to develop microwave drying methods, taking into account the purpose of the building, the period of operation or construction, the season of the year, the type of building materials used and thermal insulation.

Risks in Planning a Reconstruction Strategy for Construction Projects

Dayub Nbras, A.A. Lapidus, M.A. Fakhratov
National Research Moscow State University of Civil Engineering, Moscow

Key words and phrases: building and structure; reconstruction; risks when planning a strategy for the reconstruction of construction projects.

Abstract: The purpose of the article is to assess risks when planning a strategy for the reconstruction of construction projects. A building renovation strategy includes aspects such as budget, existing resources, conserved resources, and desired outcome. Several types of risks have been examined, including structural, environmental, financial, cultural and historical security risks. The hypothesis is that risk reduction increases the efficiency of construction installations.

Determination of Significant Indicators Affecting the Organization of Instrumental Control of the Operational Quality of Hinged Facades of Buildings

A.A. Lapidus, I.V. Ermakov

National Research Moscow State University of Civil Engineering, Moscow

Key words and phrases: significant factors; instrumental control; method of individual expert survey; experiment planning method; method of system analysis; hinged facades; organization of control; facade systems; operational quality.

Abstract: The article presents the methodological grounds for choosing factors that affect the organization of instrumental control of the operational quality of hinged facades of buildings, and the most significant of them. The purpose of this article is to define the methods and their application for evaluating the results that affect the process of organizing instrumental quality control. The main objectives of the study are the choice of a scientific method and its application to form a general list of factors; analysis of the general list of factors, formation of a natural list of factors; the choice of the scientific method and its application to determine the degree of tolerance of options. The authors propose to study the possibilities of using search queries of significant criteria and the degree of their research on the organization of instrumental control of the effectiveness of hinged facades using search scientific methods. To determine the order of actions in the study, the method of experiment planning was used. As a result, a list of factors influencing the organization of instrumental control of the operational quality of curtain wall systems of civil buildings was formed.

To refine the set and determine the degree of influence of factors, the method of expert assessments was used, namely the method of an individual expert survey. The author created a group of experts, formed a questionnaire with initial data for the work of experts, conducted a survey and processed its results. Based on the results of the study, the most significant factors were identified that affect the organization of instrumental control at the stage of design and survey work and at the stage of direct construction and installation works of the installation of hinged facades.

The Problem of Road Safety (for the Federal Republic of Germany)

D.A. Amanatov, E.G. Yakusheva

North-Eastern Federal University named after M.K. Ammosov, Yakutsk

Key words and phrases: vision zero; accident rate; road safety; road transport travel; foreign experience; injury.

Abstract: The purpose of the article is to solve the problems of road safety in safe cities. The study focuses on the German national road safety program for 2021–2030. The article contains a proposal to improve road safety in Russia, taking into account studies in the cities of the Federal Republic of Germany. On the basis of research-based studies, the authors come to the conclusion about the applicability of a comprehensive study in the scientific justification and practical organization of the “road map” that improves road safety, and quality control over its implementation reduces the accident rate.

Scenographic Features of Architecture: on the Issue of Noir and Neo-noir Style

A.A. Abizgildina

Boston College of Architecture, Boston, Massachusetts (USA)

Key words and phrases: architectural absorption through cinema; architectural space; graphic design; noir and neo-noir; realism and surrealism in architecture; scenographic representation of architecture; human perception of architecture.

Abstract: The article deals with the issues of scenographic features of architectural creativity, which are based on the synthesis of architecture, theatrical art, scenography and film art in the style of noir and neo-noir. The integration of architecture, scenography and film art expands the possibilities of discovering architectural space, movement and time. One of the promising directions in the development of modern architecture is the use of modern noir and neo-noir styles in architectural work. The author's project "Landscape of Dreams" (Dreamscape) is presented, integrating architectural and cinematic creativity in the style of noir and neo-noir. The purpose of the project is to reveal the scenographic features of architecture in the style of noir and neo-noir. The project objectives are to study theoretical questions about the tools of scenography and cinematography in architectural design; to study the scenographic features of the noir and neo-noir styles in architectural work; to study the technologies and means of cinematography in the style of noir and neo-noir for the presentation of the video sequence of the architectural space, taking into account their study on emotional perception; to develop an innovative project "Landscape of Dreams" based on the use of scenographic and cinematographic styles noir and neo-noir in architectural work. The research hypothesis has been put forward, according to which the scenographic features of the noir and neo-noir styles in architectural work are expressed in the possibility of creating a realistic and surreal architectural space, which is based on visual images of the movement of light and shadows. The results of the study show that the architectural scene in the noir and neo-noir style has an innovative potential, embodying the ability to create a realistic and surreal architectural space.

The Analysis of the Study of the Structure of Industrial Architecture Objects

E.A. Maksimenko, Yu.A. Oblasov, A.S. Polevaya

St. Petersburg State University of Architecture and Civil Engineering, St. Petersburg

Key words and phrases: industrial architecture; methods of reconstruction; conservation methods; industrial architecture; industrial areas; renovation.

Abstract: The purpose of the article is to analyze the methods used to visit industrial architecture objects. The objectives of the article are to study the methods for carrying out reconstruction and restoration measures to meet objects of industrial architecture; to consider the collection of domestic and foreign experience of industrial architecture; to analyze search methods in external areas – the preservation of architecture, structures, fitting the building into the environment. As a hypothesis, the statement is presented that reconstruction and restoration methods are assumed according to the possibilities of applicability while maintaining or using the functions of industrial buildings. As a result, the article proposes the most appropriate protocols for the architecture of industrial facilities in the absence of changes in functions, with complete re-functionalization and partial re-functionalization of the building, respectively.

Individualization of Preventive Work with Young People Serving Sentences without Deprivation of Liberty

A.M. Andreev, D.V. Lukashenko

*Academy of Rights and Administration of the Federal Penitentiary Service, Ryazan;
Research Institute of the Federal Penitentiary Service, Moscow*

Key words and phrases: persons of youth age; punishment not related to isolation from society; susceptible; penitentiary system.

Abstract: The goal is the subsequent prevention and psycho-correction of the behavior of adolescents sentenced to punishment not related to deprivation of liberty. The objectives of the study are to achieve awareness among convicts of the social factors of recidivism, to find out the opinions of convicts about the reasons for committing a crime; diagnosing awareness of convicted emotions and feelings that led to the crime; develop an adequate strategy and tactics of behavior in various situations among convicts. The result of the study was the development of a cognitive-behavioral program to correct the behavior of convicts sentenced to punishment not related to deprivation of liberty.

Formation of Competencies of Bachelors of Non-Mathematical Areas of Training in the Process of Performing Independent Work of a Teaching Type in Linear Programming

S.V. Bazanova

Leningrad State University named after A.S. Pushkin, St. Petersburg

Key words and phrases: activation of students' cognitive activity; training in linear programming; formation of competencies.

Abstract: As a prerequisite for the study, it was put forward that the filling of the system of training tasks should be carried out in accordance with the established standards for enhancing the cognitive activity of bachelors. The author comes to the conclusion that typical tasks are offered for understanding the teaching mathematical methods of linear programming, and also forms general cultural volumes of skills in them.

The Program for the Development of General Endurance in Physical Education Lessons for Primary School Students

N.A. Borisov, E.V. Barysheva, O.A. Tushina, O.A. Musin

*Nizhny Novgorod State Agricultural Academy, Nizhny Novgorod;
Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod*

Key words and phrases: interval training method; circuit training; students of elementary grades; the emergence of culture.

Abstract: This article discusses the features of the development of general endurance in physical education lessons among primary school students. The purpose of the study is the experimental substantiation of the program for the development of general endurance, based on the interval method. The main research methods were the analysis of scientific literature, pedagogical testing and pedagogical experiment. As a result of the implementation of the developed program for the development of general endurance of primary school students, its features are excluded.

Psychological and Pedagogical Conditions for the Development of Auditory Memory in Children aged 5–6 Years with Visual Impairments

M.E. Varlamova

Chuvash State Pedagogical University named after I.Ya. Yakovlev, Cheboksary

Key words and phrases: children with visual impairments; preschoolers; memory; sensory disturbances.

Abstract: The goal is to determine the conditions for the development of auditory memory in children aged 5–6 years with visual impairments. The research tasks were to define and test a system of work to improve the productivity of auditory memory in children aged 5–6 years with visual impairment and assess the degree of its effectiveness; to identify complications in the development of auditory memory in children with visual impairment in the process of its development. The hypothesis is based on the assumption that the development of auditory memory in older preschool children with visual impairment will depend on the severity of a number of psychological and pedagogical conditions. Approbation of the constructed system of auditory memory development in 5–6 year-old children with visual impairment through the use of didactic games and exercises, proved its effectiveness under certain conditions specified in our paper.

Quality Management of Modular Training in Professional Personnel of the National Guard Troops of the Russian Federation

V.D. Volkov

Military Unit 6688, Astrakhan

Key words and phrases: modular training; training; professional training; education quality management.

Abstract: The purpose of this article is theoretical substantiation of the content of process management to improve the quality of modular training in professional qualification and qualification of military personnel (workers) of the troops of the National Guard of the Russian Federation. The task of the study is to analyze the management procedures for modular training (employees) and substantiate the conditions aimed at improving the quality of training. The research hypothesis suggests that the implementation of control and corrective actions in the process of managing modular training will improve the quality of professional training (employees) for the conditions of service and combat activities, taking into account the emerging environment. The research methods are observation, analysis, comparison of managerial influences on the research process, adjustment and measurement of results (assessment).

On the Problem of the Effectiveness of Using Didactic Games in a Non-linguistic University

S.L. Volkova, S.A. Ermolaeva, Yu.A. Tsapaeva

St. Petersburg State Marine Technical University, St. Petersburg;

St. Petersburg State University of Architecture and Civil Engineering, St. Petersburg

Key words and phrases: English; future engineers; didactic games; foreign language; cognitive interest; the process of teaching a foreign language in full-time education; development of cognitive interest.

Abstract: The aim of the paper is to identify the dependence of the development of the cognitive interest of students, engineers of specialties of technical universities on didactic games when using a foreign language. The task of the study is to substantiate the expediency of including thematic didactic games in the process of learning English by students. The hypothesis of the study is the use of didactic

tomology in English classes in the student's development of students' cognitive interest in the subject "Foreign Language" and improving the quality of knowledge of future engineers. The research methods are collection, analysis and systematization of data, study and generalization of advanced pedagogical experience.

Didactic Games as a Means of Developing Cognitive Interest in a Foreign Language in Students of a Technical University

S.L. Volkova, S.A. Ermolaeva, Yu.A. Tsapaeva
St. Petersburg State Marine Technical University, St. Petersburg;
St. Petersburg State University of Architecture and Civil Engineering, St. Petersburg

Key words and phrases: didactic game; foreign language; interest; learning process; the formation of cognitive interest; technical university students.

Abstract: The features of using cognitive gaming activities in the educational process in order to activate the cognitive activity of students in the classroom in a foreign language are considered. The aim of the paper is to study didactic games on the process of setting the cognitive interest of students of technical universities in a foreign language. The task of the study is to substantiate the need for didactic games in educational situations in the classroom for this academic discipline. The hypothesis of the study turns out to be that the supposed gradual formation of students' cognitive interest in a foreign language when collecting didactic games in the classroom will be carried out as part of the educational process. The research methods are the systematization and collection of data, as well as the generalization of pedagogical experience. The results of the study show that the useful use of didactic games in teaching a foreign language at a technical university increases the degree of formation of cognitive interest and the quality of mastering educational programs. The characteristic features of the use of didactic games in the process of formation of cognitive interest at different stages of its development among students of a technical university are revealed.

Training of Future Managers for Music Education for the Development of Socio-Cultural Projects through Master's Program

S.A. Vorobieva
Lipetsk State Pedagogical P. Semenov-Tyan-Shansky University, Lipetsk

Key words and phrases: undergraduate; music education manager; design and technological practice; sociocultural project.

Abstract: The purpose of the article is the expectations of managers in the field of preparing music education for project activities. To achieve this goal, the following tasks were set: building a management complex and implementing a socio-cultural project, determining indicators for evaluating the effectiveness of a socio-cultural project, and implementing this project. The hypothesis of the study is based on the premise that the training of promising managers in the field of music education will be high if, during the course of the design and technological practice, undergraduates participate in the development of management technologies and project implementation, the use of an innovative form of events in the project, the evaluation of the project's effectiveness in according to the developed indicators. The research methods of this work are the systematization and generalization of the theoretical and practical aspects of project activities using innovative technologies. The achieved results were developed: using measures that require an increase in the level of the offered concert and performing services, an increase in the audience, familiarizing representatives of different social groups with the highest example of musical art.

Methodology for the Development of Special Endurance in Young Men Aged 16–17 Years in Swimming Lessons in a Sports and Health Club

*E.L. Grigorieva, M.I. Fedotova, S.L. Polozova, A.V. Stafeeva
Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod;
Lobachevsky Nizhny Novgorod State University, Nizhny Novgorod*

Key words and phrases: swimming; special endurance; sports and health club; boys aged 16–17.

Abstract: The article is devoted to the special training of young men involved in swimming in the conditions of a sports club. The relevance of the study is due to the priority of developing methodological support for the special training of young men involved in swimming in a sports club. The purpose of the formative experiment was to substantiate the effectiveness of the method of educating endurance in young men aged 16–17 years in swimming lessons in a health club. The means of functional training aimed at the development of special endurance have been developed and experimentally substantiated. The results of the study to substantiate the study are given.

Theoretical Foundations for the Creation and Use of New Methodological Systems of Education in Professional Deformation

*N.F. Ezhova, M.S. Guzeev
Kutafin Moscow State Law University;
Research Institute of the Federal Service for the Execution of Punishments, Moscow*

Key words and phrases: diagnostics; professional deformation of personality; penitentiary system.

Annotation: The goal is to identify the features of professional representations of various representatives of correctional institutions. The objectives of the study are to determine the definition of professional deformation, its formation and content, to identify the features of professional deformation, to identify the presence of signs in employees of the correctional institution, to determine methods for diagnosing professional deformation, to provide recommendations for preventing professional deformation of the personality of employees of the correctional institution. To solve the tasks set, the following methodological tools were used: the method of system analysis; generalization of normative, scientific and practical materials; historical method; private – scientific methods – comparative, interaction, observed, technical-legal, etc. The result of the study was an effective prevention of professional deformation of the personality, which should grow from the individual characteristics of the personality, taking into account its most deformed shells.

Methodological Preparation of Teachers for Professional Activities

*N.F. Ezhova, D.V. Lukashenko
Kutafin Moscow State Law University, Moscow;
Research Institute of the Federal Penitentiary Service, Moscow*

Key words and phrases: responsive; relationship system; strict regime; penitentiary system.

Abstract: The goal is to study the determinants that assess the relationship between the state of the socio-psychological climate (SPC) in the team of employees of the correctional institution (CI) and the level of their personal tolerance, as well as the development of psychological and pedagogical research, ensuring their formation of a high level of personal tolerance with the satisfaction of the SPC in IU team in the preparation of teachers for professional activities. Research objectives: to conduct a theoretical analysis of approaches to the big problem of tolerance in the scientific literature, the features of the socio-psychological climate in the team of employees and the reference institution; develop and substantiate a set of methods and methodological procedures for an empirical study of the

features of a diagnostic study of personal tolerance for the state of the socio-psychological climate in the staff of the correctional institution; conduct an empirical study of personal tolerance for the state of the socio-psychological climate in the staff of the correctional institution; develop and test scientific and practical recommendations for determining the level of personal tolerance in order to identify the socio-psychological climate in the staff of the correctional institution. To solve the tasks of observation, conversation, questioning, questionnaire “Diagnostics of communicative tolerance” V.V. Boyko, “Questionnaire of interpersonal relations” (QIR) by V. Schutz (adapted by A.A. Rukavishnikov), questionnaire “Definition of integral forms of communicative aggressiveness” by V.V. Boyko were used. The result of the study was the development of a psycho-correctional program for the optimal formation of the modern socio-psychological climate based on the correction of personal tolerance of employees of the correctional institution.

Conceptual Approaches to Improving the Humanitarian Training of Engineering Students

S.B. Ignatov

Tyumen Industrial University, Tyumen

Key words and phrases: humanitarian training; engineering university; conceptual approaches; modernization.

Abstract: The article is devoted to the problem of humanization of engineering education. The author of the situation is that in adaptation to late educational models in Russian engineering universities, the frequency of social and humanitarian disciplines is very high, adaptation to universal competencies among students, favorable for the successful solution of professional tasks and personally significant problems. The possibilities of overcoming the current situation are discussed. The purpose of the article is to reveal conceptual approaches to the development of humanitarian engineering education and consider options for their implementation in educational practice. The objectives are to analyze the state of liberal education in an engineering and technical university. A hypothesis has been put forward about the positive impact of the proposed changes on the quality of graduate training. The research methods are inspection-comparative analysis, logical generalization, modeling and design. The approaches proposed by the author to solving the problem of humanitarian engineering education can be useful in the development of scientific projects and graduate training programs.

Formation of Life Competencies of Students with Special Educational Needs in Gaming Activities

I.V. Kazakova¹, I.Yu. Burkhanova², M.E. Mokhova², S.V. Burkhanov²

¹ Boarding School No. 9 of Gorodets, Gorodets;

² Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod

Key words and phrases: life skills; cognitive -motor games; students with students of educational institutions.

Abstract: One of the main tasks of school education for children with special educational needs is their socialization and preparation for life. The formation of students' life competencies takes place in a complex manner, and the use of gaming educational technologies will improve the efficiency of this process. The purpose of the study is to determine the effectiveness of the use of cognitive-motor games for the formation of life competencies of students with special educational needs. The objectives of the study are to determine the basic life competencies of students with special educational needs and to analyze the dynamics of their development in the educational process using cognitive-motor games. The article presents the results of the dynamics of social adaptation, autonomy, social activity, moral qualities and communication skills in the course of a formative experiment among students of the State Educational Establishment “Boarding School No. 9 of Gorodets” in the Nizhny Novgorod region.

Features of Using the Online Platform in the University Education System (Padlet, Quizlet, Learnis)

*R.S. Kolodeznikov, S.I. Kolodeznikova
North-Eastern Federal University, Yakutsk*

Key words and phrases: websites; university; educational platform; educational process; online services; transformation; digitalization of education.

Abstract: The attention of the authors is directed to studying the problems of digitalization of education, the development of which has become even more relevant in connection with the pandemic. The purpose of the study is to provide common educational web platforms that are distinguished by versatility and multifunctionality. The following tasks were set: to choose the most suitable online platform for the university system, taking into account the peculiarities of the educational process; assessment of the capabilities of the proposed platforms. This study makes it possible to actualize the problem of the lack of special educational web services of higher education, and also raises the issue of learning to teach new technologies.

The Analysis of Attitudes of First-Year Students of Petrozavodsk State University to Classes in the Discipline “Physical Culture and Sports”

*S.V. Kornev
Petrozavodsk State University, Petrozavodsk*

Key words and phrases: questioning; sport; students; the emergence of culture; elective directions.

Abstract: The discipline “Physical culture and sport” at the university is mandatory for everyone who wants to train. At the Petrozavodsk State University (**PetSU**) disciplines are held, organized in the format of elective students. At the moment, more than 15 interests in various sports are being implemented. It can be difficult for first-year students to switch from the format of conducting physical education at school to classes held at the university.

In this article, a study was conducted that assesses the attitude of first-year students to physical education classes at PetrusU after studying in the first semester. The purpose of the work is the most priority areas among first-year students. The main research methods are theoretical analysis and generalization of scientific and methodological literature, questioning. The results of the study made it possible to make a sample that the adaptation of first-year students to the new format of classes in the discipline “Physical Culture and Sports” is successful, the attendance of classes is at a fairly high level, and interest in classes in the discipline is visible.

The Generation Raised by the Unified State Exam: Reflections on the Institution of Mathematics Education

*R.Yu. Kostyuchenko
Omsk State Pedagogical University, Omsk*

Key words and phrases: final attestation; unified state exam; control and measuring materials; mathematical education; methodology for teaching mathematics; learning outcomes.

Abstract: The article follows the question of the level of mathematical preparation of schoolchildren who received education in the 21st century, when the unified state exam (**USE**) was the first experiment, and later became the only result of the final certification of schoolchildren. The purpose of the study is to develop a methodology aimed at improving the effectiveness of teaching mathematics in the field of preparing high school students for the Unified State Examination. The objectives are to discover the rationale for the opinions of the results and opponents of the Unified State Exam, to determine the

level of mathematical schooling, to establish its connection with the final certification, the proposed possible ways with the use of teaching mathematics. The hypothesis is as follows: the form of the final exam does not correspond to the level of mathematical training of students, its increase is assessed by numerous factors, among which the establishment of the requirements of psychological ecology is taken into account. The revision includes theoretical (literature analysis, best practices, modeling) and empirical (observation, conversation, experiment) methods of psychological and pedagogical research. The author expresses the opinion that the negative role of the USE in managing the process of the educational process can be leveled if efforts are made by the authorities aimed at creating an educational environment in which education becomes qualitatively prestigious. Under such conditions, it is possible to fulfill all the components of the methodological system of teaching mathematics, and the USE will be limited only to the positions of control and diagnostics, as opposed to the managerial function. This will meet the standards of personal, subject and meta-subject results in teaching mathematics.

Mobile Technologies in the Natural Educational Environment of Patriotic Education of Schoolchildren

*K.S. Kremenetskaya, L.M. Turanova
Siberian Federal University, Krasnoyarsk*

Key words and phrases: virtual educational environment of association of schools; upbringing; mobile technologies; patriotic education of schoolchildren; pedagogical technologies.

Abstract: The article discusses some of the results of the project “Patriotic education of schoolchildren in the Far North in an intensive educational environment for the widespread use of schools in the Krasnoyarsk Territory based on mobile technologies.” The purpose of the study is to evaluate the experience of organizing events aimed at solving the problems of educating schoolchildren in a sustainable educational environment with a wide range of communication with the positions of an axiological, system-activity and environmental approach and reflective pedagogy. Among the objectives of the project: special pedagogical and organizational work on the patriotic education of schoolchildren in the natural educational environment of a wide range; to develop and conduct educational activities of a patriotic orientation by schoolchildren of the Far North using mobile applications and technologies for implementation in a wide range of communication. Solving the problem of patriotic education of schoolchildren will contribute to the introduction of mobile technologies in a sustainable educational environment and common tastes. Far North with the use of mobile applications and technologies in the environment of corporate interaction of the Far North of the Krasnoyarsk Territory is consistent with the theoretical provisions of the axiological, system-activity and environmental approach and reflective pedagogy in the patriotic education of schoolchildren.

Factors in the Development of Speed-Strength Abilities through Sports Games

*V.A. Kuznetsov, O.A. Musin, N.A. Borisov, O.A. Tushina
Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod;
Nizhny Novgorod State Agrotechnological University, Nizhny Novgorod*

Key words and phrases: speed-strength qualities; sport games; intense load; running process; development factors.

Abstract: Speed-strength abilities are an important aspect for achieving success in many sports games. They allow athletes high speed, power and sensitivity reduction, which greatly increases their chances of reduction. However, the development of speed-strength abilities requires achievement and reliable planning on the part of athletes and their coaches. The aim of the study is to analyze the main factors influencing the development of speed-strength abilities in those involved in sports games. The main methods used in the article are the analysis and synthesis of scientific and methodological

literature on the development of speed-strength abilities in those involved in sports games. As a result of consideration of the main factors influencing the dynamics of the development of speed-strength abilities in those involved in sports games.

Features of Physical Education Classes with Students

*O.A. Musin, S.V. Burkhanov, E.A. Ershova, E.O. Utkin
Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod*

Key words and phrases: motivation; organization of classes; students; the emergence of culture; launch preparation; physiological development.

Abstract: This article discusses the features of physical education classes with university students. The purpose of the study is to determine physical activity for the health of students, as well as its impact on academic performance. The main objectives of the study are to identify the methods and forms of classes that are used in the educational process to improve efficiency; to give recommendations to motivate students to regular classes and support their interest in physical culture. As research methods, an analysis and synthesis of scientific papers on the research topic were carried out. Particular attention is paid to the organization of group classes and the selection of exercises that take into account the peculiarities of students' physical training. In general, the article will be useful to teachers and coaches working with students, as well as students who want to improve their physical condition and improve academic results.

Modern Approaches to Teaching Legal Disciplines in Higher Education (State Public Private Law)

*I.G. Mukhametgaliev, D.V. Chernov, L.A. Fardetdinova, V.I. Kuzmenko
Elabuga Institute – Branch of Kazan (Volga Region) Federal University, Elabuga;
Kazan Branch of the All-Russian State University of Justice
(RPA of the Ministry of Justice of Russia), Kazan*

Key words and phrases: innovative forms of teaching; methods of teaching law; educational process; problematic issues of the course; Roman private law.

Abstract: The aim of the study is to study the scientific and theoretical views and methodological practices of modern approaches to teaching legal disciplines in higher educational institutions based on the fundamental course of Roman private law. The objectives are to study the debatable issues, in accordance with the teaching methods, and the content of this course. The hypothesis research is based on the assumption that for the formation of ideas about law as a manifestation of effective fundamental knowledge, which is manifested in Roman law in a universal form. The methodological and theoretical basis of the study outlined the provisions of the theory of scientific knowledge, pedagogy, teaching methods.

The Influence of Proper Nutrition on the Formation of a Healthy Lifestyle of Senior Students

*L.A. Nepovinnykh
Petrozavodsk State University, Petrozavodsk*

Key words and phrases: health; healthy lifestyle; older students; the emergence of culture.

Abstract: The main goal of this study is to determine the nutritional characteristics of modern schoolchildren and to assess the nutrition of students in grades 10–11. The implementation of this goal involves the solution of the following tasks: the formation of the lifestyle of students and its impact

on health, the identification of the principles of natural nutrition, the formation of the perception of a healthy lifestyle, a survey of students and, based on the results of the study, summarize the results of the survey, summarize and give recommendations based on a questionnaire.

Reading Hut from the Perspective of Educational and Cultural Work in the 1930s in the Countryside

E.M. Plekhanova, I.V. Berinskaya, O.B. Lobanova, E.A. Richter
Krasnoyarsk State Pedagogical University named after V.P. Astafiev, Krasnoyarsk;
Irkutsk State University, Irkutsk;
Lesosibirsk Pedagogical Institute – Branch of Siberian Federal University, Lesosibirsk

Key words and phrases: 1930s; reading hut; historical memory; cultural and educational work; rural settlements.

Abstract: The relevance of the article lies in the fact that evaluation of the vastness of the study of a vast cultural space, which is complemented by extensive cultural and educational activities in our country in the 1930s. The purpose of the article is to characterize the cultural and educational work of the reading huts in the 1930s in the Siberian hinterland. When working on the article, the authors used the method of analyzing chemical facts, the chronological method and the method of generalization. The obtained results of the article make it possible to complete the scheme of reconstruction of cultural and educational work during the formation of the Soviet state.

Legal Education, Its Forms and Methods

E.V. Ryabova, E.A. Martynova, E.A. Tenisheva
Mordovian State Pedagogical University named after M.E. Evseyev, Saransk

Key words and phrases: method of legal education; legal propaganda; legal education; legal training; self-education; forms of legal education; legal practice.

Abstract: This study aims to reveal the features of the interpretation of his concept of legal management, to determine the system of forms and methods of analysis, various analytical studies regarding the definition of forms of legal management. The hypothesis of the role in legal education is the personality of the educated person, the characteristic features of which determine the application of the most effective methods and methods. The research methods are pedagogical observation, generalization and systematization. In the article, the authors substantiate their point of view regarding the technical methods and forms of legal education, which should be given priority attention.

Motivational and Volitional Components in Physical Education Lessons

I.A. Sedov, Yu.S. Krasilnikova, L.R. Egorova, A.S. Loginova
Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod

Key words and phrases: volitional self-regulation; motivational and volitional components; increasing student motivation; students of a pedagogical university; the emergence of culture.

Abstract: The article considers the role of the motivational and volitional component of physical culture classes in a student pedagogical university. The relevance of the chosen topic is due to the desire to develop motivation and will in physical education classes in order to form students' professional quality. The features of the motivational and volitional components, their interrelation and influence on physical culture classes are analyzed, the reasons for the exclusion of the level of motivation among students are revealed. The result of the article is the development of methodological tricks aimed

at increasing the level of motivation and volitional self-regulation of students in the classroom in the disciplines “Physical culture and sports”.

Adaptive Physical Training as a Means of Correcting Mental Illness in Children with ASD at Preschool and Primary School Age

*I.A. Sedov, Yu.S. Krasilnikova, P.M. Chernyavskaya, I.A. Startseva
Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod*

Key words and phrases: allergic reaction of culture; childhood autism; limited health opportunities; sport games.

Abstract: The purpose of the article is the selection and adaptation of sports for the correction of mental illness in preschool and primary school age in children with autistic behavior disorders (ASD) in a playful way. Objectives: to substantiate the appointment of physical education classes for children with ASD in preschool and primary school age, to consider the rationale and criteria for choosing exercises used in the treatment of children with ASD, to develop recommendations for the study of physical education in a playful way for children with ASD in preschool and primary school age. As a method of work, plot and poetic were chosen. As a result, the author has developed an adaptive physical training complex for children with ASD at preschool and primary school age.

Physical Culture as One of the Aspects of the Treatment of Anxiety Disorders

*E.M. Solodovnik, G.N. Kolosov
Petrozavodsk State University, Petrozavodsk*

Key words and phrases: aerobic exercise; depressive disorder; prevention; psycho-neurological impact; anxiety disorder; physical training.

Abstract: The article analyzes the role of physical culture and education in the reception of neuropsychiatric pathologies, in particular, mood disorders and anxiety disorders. With the help of specialized medical literature, methods of treating diseases are studied. A survey was conducted among people with diagnoses. Based on the information received, specific types of activity and usefulness were found in combating the symptoms of mood disorders, as well as the effect of physical activity on the state of neurodivergent people.

Formation of Reading Literacy of Students on the Material of the Texts of the Current Retroperiods

*G.S. Spiridonova, L.S. Shmulskaya, S.V. Mamaeva, O.B. Lobanova
Krasnoyarsk State Pedagogical University named after V.P. Astafiev, Krasnoyarsk,
Lesosibirsk Pedagogical Institute – Branch of Siberian Federal University, Lesosibirsk*

Key words and phrases: reading literacy; the formation of reading skills; natural text; retroperiods; 8th grade students.

Abstract: The relevance of the article is due to the presence of meta-subject skills. The purpose of the article is to show the possibility of using retroperiodic texts in the periodicals of students' reading literacy. The research methods are analysis, generalization, modeling tasks. The article presents the exercises tested within the framework of optional exercises that contribute to the formation of reading literacy of 8th grade students. The tasks are based on the texts of articles from the newspapers of the Krasnoyarsk Territory of 1930-1940. The materials of the article can be useful in compiling banks of tasks for the formation of students' reading literacy.

Pedagogical Support of Sports Self-Determination of Persons with Disabilities

R.A. Stepanov, K.E. Kuritsyna, I.A. Startseva
Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod

Key words and phrases: sensitive sports; persons with disabilities; sports self-determination; persons with disabilities; pedagogical support; coach.

Abstract: The purpose of the study is to demonstrate the accompanying person and the accompanying person in the pedagogical support of persons with disabilities and disabilities. The research objectives are to study the features of the scientific and methodological literature of pedagogical support for sports self-determination of persons with disabilities and disabilities; to analyze the educational tasks of the leader in the pedagogical support of sports self-determination of persons with disabilities and disabilities; to reveal the provocative function of the teacher in the pedagogical creation of sports self-determination. The research hypothesis is based on assumption that the developed system of actions has a positive effect on the psychological side of the individual. Pedagogical methodological research should include: analysis of scientific and methodological literature, synthesis and receipt of data income. The results of the study are as follows: a provocation of the assessment of pedagogical cooperation and teacher functions was revealed. A system of behavior of a coach in terms of perception of the appearance of games has been developed, which has a beneficial effect on the mood on the part of the individual.

To the Problem of Introducing Minors to Sports Activities in the Conditions of a School Sports Club

A.S. Strelalov, E.Yu. Mukina
Derzhavin Tambov State University, Tambov

Key words and phrases: motivation; youth sports; school sports.

Abstract: The article discusses the aspects of involving minors in sports activities; the conditions for the formation of motivation in children, training sessions, the motives for attending the beginning of beginner classes in a school sports club, recommendations are given, stimulating the involvement of children in systematic physical education and sports on the basis of the school sports club of the educational organization.

The Development of Foreign Language Communicative Qualifications of Students of Non-Linguistic Specialties (Using the Textbook “English for Technical Students”)

I.Yu. Sukhanova
Samara State Technical University, Samara

Key words and phrases: English for Special Purposes; communication skills; foreign language communicative competence; textbook.

Abstract: The purpose of the study is the comprehensive development of foreign language communicative, cognitive, informational, professional and general cultural competencies. The objectives are to consolidate the knowledge and skills acquired from students; to increase the efficiency of foreign language proficiency. The hypothesis is the assumption that the developed exercises with increased sensitivity to high-frequency speech activity (oral and visual speech, various types of reading) on an interdisciplinary integrative basis, appear as a very promising educational manifestation, stimulate an increase in the efficiency of work on mastering students with specific manifestations. The research

methods: methods of systematization and generalization of the analyzed material. The results are as follows: the importance and necessity of creating exercises within the textbooks, as well as in the form of separate collections for students of non-linguistic specialties.

Conditions for the Implementation of Public Hikes for People with Disabilities in Karelia

A.P. Turenko, A.S. Cariauli
Petrozavodsk State University, Petrozavodsk

Key words and phrases: barrier-free tourism; barrier-free environment quality criteria; tourists with limited mobility; inclusive tour; Republic of Karelia.

Abstract: Russia has a great tourism potential, but many routes are accessible for tourist trips, especially problems with the musculoskeletal system. The availability of tourist sites of the Republic of Karelia as one of the main representatives of the regions of the countries, and also has a different level of development. The purpose of the study is to study the conditions for the implementation of real hikes for people with disabilities in Karelia. In the course of the work, data from the World Health Organization were analyzed.

Potential Technologies of Critical Thinking in the Implementation of the Goals of Foreign Language Education in Higher Education

V.P. Frolova, E.N. Miroshnichenko
Voronezh State University of Engineering Technologies, Voronezh

Key words and phrases: pedagogical technology; critical thinking; synectics method; cinquain; foreign language communication; comparisons; discussion.

Abstract: The article uses the experience of applying the methods of learning English, which are the constituent technologies of critical thinking. Master methods such as synectics and cinquain aimed at improving the process of teaching a language, enhancing the cognitive activity of students and developing communication skills. The purpose of the study was to study theoretically and collect practically the elements of critical thinking technology in the process of teaching a foreign language to undergraduates of an engineering university. As a result of the study, it was concluded that the methods used are productive for improving the teaching of foreign language communication, and for the development of creative interaction between the subjects of the pedagogical process.

The Formation of a Value-Oriented Orientation of an Individual

A.Kh. Khaertdinova
Naberezhnye Chelny Institute, Kazan (Volga Region) Federal University, Naberezhnye Chelny

Key words and phrases: value orientations; personality values; spiritual values; personality traits; personality orientation; personality needs.

Abstract: The purpose of the article is to analyze the category of “value” in the work of various psychologists. Objectives of the study: to establish that value orientations are also a sharp development of personality, constitute the essential structure of personality. The methods are analysis of scientific literature, generalization and systematization of scientific approaches, theories and concepts, questioning, observation, sociometric methods of analysis, statistical methods of analysis. Based on the results of the theoretical study, it is assumed that the concept of “value” was developed and studied in depth and comprehensively.

Physical Activity in the Prevention of Cardiovascular Diseases

*I.T. Khairullin, O.V. Ageeva A.A. Zariпов, R.I. Sungatullin
Kazan State Power Engineering University, Kazan;
Volga State University of Physical Culture, Sports and Tourism, Kazan;
Kazan State Institute of Culture, Kazan;
Kazan (Volga Region) Federal University, Kazan*

Key words and phrases: cardiovascular system; stroke volume; minute blood volume; physical inactivity; target pulse zone; anaerobic zone; aerobic zone.

Abstract: In this article, people review the comparative characteristics of cardiovascular disease (CVD), the proposed active lifestyle and the alleged physical inactivity. The purpose of the paper is to study physical activity for the prevention of CVD in people suffering from physical inactivity. The goal is to calculate the heart rate for the various physical demand zones and the calculated demand, the “target heart rate” parameter, which is determined at a heart rate that is acceptable for the age of the person being trained. In accordance with the tasks of operational research methods: literature analysis, method of analysis and processing of the information received, the information received. The research hypothesis: improved quality and life expectancy with regular physical activity in people with diagnosed CVD. As a result of our work, recommendations were made to prevent the development of ZSSS in people with alleged hypodynamia.

Analysis of the Specifics of the Education of the Profession “Graphic Designer” in Higher Educational Institutions in China

*Han Enhui
Moscow Pedagogical State University, Moscow*

Key words and phrases: graphic design; types of graphic design; Chinese graphics; anthropological design; teaching methods in design.

Abstract: The following goals were achieved in the work: the Chinese practice of training graphic designers in higher educational institutions, an assessment of the evolution of the development of this profession, as well as its prospects. The tasks performed in the article to achieve a higher goal: analysis of approaches to the concept of “graphic design”, study of the features of the historical development of the profession “graphic designer”, analysis of performance characteristics, features of the development of this direction, assessment of the role of Western research in Chinese painting, identification of subject experience in teaching students, as well as teaching methods and tools. The hypothesis of the study turns out to be that the educational process in obtaining professional skills in the specialty “graphic designer” in Chinese universities is based on the application of the technical application of Chinese painting, as well as that of Western. Research methods used in the article: analysis, classification, comparison. The result of the study is as follows: a purposeful educational process in graphic design is used, which can be used in the practice of Chinese universities.

Features of Pre-Training Runners on a Late Diet

*E.A. Shunyaeva, V.V. Timoshin, T.V. Parshina, A.V. Mishin
Mordovia State Pedagogical University named after M.E. Evseyev, Saransk*

Key words and phrases: athletics; running; long distance; training cycle; sports training; sports result.

Abstract: A possible pedagogical task is solved in the scientific article: to consider the structure of

sports training of athletes, taking into account the main tests of cycles; to characterize the system of accumulation blocks as a concentrated load for highly qualified athletes; assessment of the severity of the main components of the sports training of runners-stayers. To solve the set tasks, general scientific methods: analysis of pedagogical, psychological and sports literature; synthesis of basic ideas, generalization, deduction, comparison, comparison and generalization. The research hypothesis is based on the assumption that the most effective measures in the preparation of athletes have a component of the safety of block training systems. It makes it possible to concentrate training loads that give a sufficient training effect to improve the level of preparedness, as well as to take its motor quality and technical qualifications from athletes. The results of the study are as follows: the features of sports training of runners at a late distance were revealed and are especially important; the structure of sports training is presented, taking into account the main training cycles; the system of training blocks is characterized as a concentrated experimental load; the degree of sensitivity of the main components of sports training was analyzed.

Conceptual Model of Sustainable Development of Students in Asian Countries

A.E. Astafieva, R.S. Valeeva
Kazan National Research Technological University, Kazan

Key words and phrases: conceptual model; student preparation; internship; the international cooperation; University of Technology; universities in China, intercultural communication.

Abstract: The purpose is to develop a conceptual model for preparing students in cooperation between Russia and Asian countries. The tasks are to substantiate the accounting of the retrospective and prospects for cooperation between the regions of Russia and the provinces of China within the framework of the model; develop recommendations for improving the processes of preparing full-fledged students; to present a methodology for preparing students who can contribute to the development of sustainability in Russia and Asian countries. The hypothesis is as follows: the proposed model for the production of students for the development of Russian-Chinese cooperation. The methods are comparison of groups of internships and students. The study resulted in the proposed model of the frequency of reactions in Russia and Asian countries in the educational space.

Professional meta-Subject Skills of a Teacher as an Element of Achieving Learning Outcomes for Students of a Pedagogical University

R.N. Afonina
Altai State Pedagogical University, Barnaul

Key words and phrases: professional meta-subject qualifications; students of a pedagogical university.

Abstract: The social order for the formation of meta-subject learning outcomes for schoolchildren defines new tasks in teacher training. Actual tasks in the preparation of a student, a future teacher, along with the tasks of preparing him for the formation of subject and personal research in schoolchildren, are the tasks of preparing for the formation of meta-subject results of education. In professional meta-subject training, the issue of achieving the goal and the content of teaching students of a pedagogical university is considered. Professional meta-subject qualifications of a graduate of a pedagogical university have the knowledge, properties and skills necessary for the implementation of a meta-subject component in the context of subject education in a general education school.

Development of Creative Thinking of Students in Comfortable Games

I.Yu. Burkhanova¹, E.L. Grigorieva¹, A.N. Baranov², E.V. Baranova²

¹ Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod;

² Volga State University of Water Transport, Nizhny Novgorod

Key words and phrases: creative thinking; higher education; business games; educational success; students.

Abstract: In modern conditions, the need for specialists with creative thinking competencies is increasing, which allows solving almost any tasks in professional activity and in life. The purpose of the study of correctness is to substantiate the possibilities of interesting games for the development of creative thinking of university students. The objectives of the development research are simple games for students to develop their creative thinking and evaluate the effectiveness of the developed complex. The article presents the results of a study aimed at developing the creativity of thinking of students on the basis of the "Student Discussion Cube". Such an increase in personal creativity and the properties of creative thinking, such as fluency, flexibility and originality, has been revealed.

Distance Learning in Colleges during the Pandemic

O.A. Valieva, E.A. Levanova

Moscow Financial and Industrial University "Synergy", Moscow

Key words and phrases: distance learning; distance learning process; dual learning; online learning interactivity; educational blog; online course; online platform; online professional learning.

Abstract: The purpose of the study is to improve the quality of the content of education content in distance learning, during a pandemic, dual education, to improve the skills of mid-level specialists, colleges, technical schools, secondary vocational education, service technicians and unskilled workers, taking into account the mandatory professional equipment of the labor market. To achieve this goal, the task was solved: to solve the methodology for achieving learning platforms for conducting online classes, to select according to the criteria: loading accumulation, the possibility of conducting a lesson, saving, replenishing the electronic library of resources, monitoring the course. The authors of the study of the problems of conducting remote classes, the requirements for a high degree of teaching, identified the possibilities for improving the quality of distance education, taking into account compliance with the requirements for the educational process in secondary vocational schools. The implementation of a technology for improving the quality of educational accumulation located on a platform for distance learning is proposed. This makes it possible to improve the quality of training of mid-level specialists in higher professional educational institutions using dual and distance learning.

The Development of Subject Dexterity in Children Aged 6 Years Old

M.R. Glukhareva, S.S. Okoneshnikova

North-Eastern Federal University named after M.K. Ammosov, Yakutsk;

Churapcha Republican Sports Boarding School of the Olympic Reserve, Churapcha

Key words and phrases: dexterity; children; exercises; rhythm; training; chips; ball.

Abstract: An article on the emergence of the development of subject dexterity in children aged 6 years old. When the guys had already mastered the perception of rhythm and the basics of bodily dexterity, they learned to feel their body. The purpose of our work is to confirm the usefulness of the development of subject dexterity in children 6 years old. We studied and selected special applications and games for the development of events. It is equally important that during the first trainings the guys have already adopted a commitment to discipline. Without her, training with balls would have turned into

sheer pampering. In training, children throw and catch balls with their hands. At this age, they do not yet have a pronounced “strong” or “weak” hand, so it is easy to teach them to freely use both. The article outlines the forms and means of conducting classes with children for the development of subject dexterity. The need for this physical quality, no doubt, is of great importance for coaches, teachers of physical education.

Laboratory Work in the Form of Practice-Oriented Training for Bachelors of Mechanical Engineering

M.M. Zorin

Chuvash State University named after I.N. Ulyanov, Cheboksary

Key words and phrases: practice-oriented laboratory approach; bachelor; engineering profile; metal cutting; experiments; plastic deformation.

Abstract: The purpose of this article is to study the experience of teaching the discipline “Formation and design of instrumental equipment” for a bachelor’s degree in mechanical engineering. As an example of practice-oriented learning, the article describes the methodology for conducting one of the laboratory works involved in learning within the framework of the course being taught. The proposed form of conducting classes allows you to consolidate theoretical knowledge and expect specialists to have the skills necessary in their professional activities.

Characteristics of the Professional Activity of a Teacher

A.R. Kalachev, T.V. Pushkareva

Moscow Pedagogical State University, Moscow

Key words and phrases: teacher; teacher’s professional activity; professional activity; pedagogical activity; teacher’s survey.

Abstract: The purpose of the article is to characterize the professional activity of a teacher. Pedagogical activity is a special kind of social activity, which is an integral part of the development from the generation of older young people, experience, knowledge and culture, which are collected in this way. The high significance of the solution of pedagogical activity is that the teacher transfers the knowledge and values of the new settlement, and therefore forms the level of development of society as a whole. The modern world is dynamically changing, so education must meet the requirements of the time, and therefore the modern teacher must be active, flexible, and mobile.

Pedagogical Conditions for the Formation of Professional Requirements for Cadets – Expected Aircraft Controllers in the Educational Process of a Military University

A.V. Kurshev, V.N. Goryainov, V.D. Chadov, A.A. Sailors

*Branch of Military Educational and Scientific Center “Air Force Academy
named after Professor N.E. Zhukovsky and Yu.A. Gagarin”, Chelyabinsk;
Krasnodar Higher Military Aviation School, Balashov*

Key words and phrases: future aviation gunners; military university; cadets; educational process; pedagogical conditions; professionally important qualities; formation.

Abstract: The problem of forming professional requirements for the educational process of a military university is currently very relevant. This is due to the fact that medical workers and workers in the field of daily activities perform official duties as intended, the quality of which depends on ensuring the safety of the population. The research hypothesis is as follows: professionally important qualities of

students will increase due to the created pedagogical conditions. The purpose of the study is to establish the professional appointment of high-class cadets-future aircraft controllers. The research methods are a method of expert assessments, testing, and questioning.

Organization of Career Guidance: Work Experience at the Faculty of Physical Culture and Sports of Minin University

M.E. Mokhov¹, I.Yu. Burkhanova¹, M.M. Kutepov¹, A.N. Volkov²

¹ *Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod;*

² *Nizhny Novgorod Academy of the Ministry of Internal Affairs of Russia, Nizhny Novgorod*

Key words and phrases: university; career guidance; high school students; personal-activity approach; systemic approach.

Abstract: One of the main tasks of higher educational institutions is to help high school students in professional self-determination and choosing a future profession. Due to the fact that during the organization and implementation of career guidance activities, approximate examples were selected. The study of the successful experience of educational organizations in this area has a high information potential for the organizers of career guidance in higher education. The aim of the study is to characterize the systematic career guidance activities implemented by the Faculty of Physical Culture and Sports of the Minin University. The objectives of the study are to determine the main approaches to career guidance work at the university and to present the experience of conducting and implementing career guidance activities based on the identified approaches. The article presents the experience of planning and the results of the implementation of systematic career guidance work organized at the Faculty of Physical Culture and Sports of the Minin University (Nizhny Novgorod).

Transfer of Results of Formal and Non-Formal Education: Case Studies

G.M. Parnikova

North-Eastern Federal University, Yakutsk

Key words and phrases: University 360; education transfer; practical skills.

Abstract: Approaches to the issue of transfer and recertification of students are considered; it is proposed to award a vision of this problem in the conditions of higher education. The practice of adopting normative acts of the university has been developed and adopted, including the re-reading of practical skills, as well as within the framework of the APE program in the BEL of an educational organization. The purpose is approbation of an element of the "University 360" model, an abandoned draft of a new development program for NEFU. The tasks are transfer of the results of formal and non-formal education in the field of basic and higher educational programs; high result of evidence-based practice. The research methods are analysis, synthesis, and experiment. The results of the research are practical cases.

Demonstration Exam as a Tool for Building a Life-Educational Route for Students

V.V. Ponikarovskaya, S.V. Nesyna, E.I. Mychko

Immanuel Kant Baltic Federal University, Kaliningrad

Key words and phrases: professional training; life-educational route; demonstration exam.

Abstract: The purpose of the article is to present the possibilities of a demonstration exam in the selection of professional competencies of students-future teachers. As a task, it is important to

characterize the life-educational route and substantiate its role in the process of vocational training. The research hypothesis is as follows: a demonstration exam of high actualization of internal motivation and development of a subjective position in the structure of the life-educational route of future teachers. The main method is the analysis of psychological and pedagogical literature and generalization of pedagogical experience. The result of the study is a description of the experience of conducting a demonstration exam in the construction of a life-educational route for students.

Pedagogical Conditions of Preparation for Professional Self-realization of Courses of Military Universities

R.K. Serezhnikova, V.V. Zagorodnev

*St. Petersburg Military Institute of the National Guard of the Russian Federation, St. Petersburg;
State Humanitarian and Technological University, Orekhovo-Zuevo*

Key words and phrases: future officers; readiness; cadet; pedagogical conditions; professional self-realization; service and combat activity; educational practice.

Abstract: The article is devoted to the current problem of formation of readiness for professional self-realization of courses of military universities. Early education is noted in preparation for professional self-realization of future officers of the National Guard. The purpose is to identify and substantiate the pedagogical conditions that actualize the potential opportunities for vocational training during the advanced training course for professional self-realization of military universities. The tasks are definition and theoretical substantiation of the pedagogical conditions for the realization of the possibilities of practical practices in identifying the expected results in the units of the National Guard for professional self-realization. Theoretical methods were used in the work (analysis and comparison of scientific literature on problematic studies). The hypothesis is as follows: the formation of readiness to train National Guard officers for professional self-realization will be effective if the pedagogical conditions for the activation of possible vocational education and training. The results of the study are substantiation of the essence of the concept of “readiness for professional self-realization of the military personnel of the national guards for professional self-realization” and the definition of pedagogical conditions arising from the activation of the use of practitioners’ capabilities in preparation for professional self-realization of courses of military universities.

The Method of Cross-linguistic Correctional Analysis of Interference as One of the Language Correction Methods in Teaching English as a Foreign Language

E.F. Ulyanova, S.S. Gulyants, L.A. Rostomyan

MIREA – Russian Technological University, Moscow

Key words and phrases: language interference; cross-linguistic analysis; correctional analysis; teaching English as a foreign language.

Abstract: The method described in the study of foreign students, interference errors of native speakers of the Russian language for the formation of ideas about the features of the logic of the Russian language. The study is based on the hypothesis that the use of cross-linguistic correctional analysis has an impact on interference, increasing the efficiency of mastering the lexical and grammatical material of a foreign language. In the course of the study, the following tasks were solved: the characteristics of the method of cross-linguistic correctional analysis of the results of interference and the main ways of its implementation were given, the development of the developed method for the dissemination of grammar and vocabulary of the Russian language by English-speaking students was demonstrated. In study, methods of pedagogical observation and analysis of scientific and methodological literature on problematic research were used.

The Analysis of the Results of Studies on the Detection of Various Diseases in Healthy People and People with Health Disabilities

A.Kh. Khaertdinova

Branch of Kazan (Volga Region) Federal University, Naberezhnye Chelny

Key words and phrases: value orientations; disabilities; universal values; higher education; healthy people; people with disabilities.

Abstract: The purpose of the article is to analyze the results of a study to identify various diseases in healthy people and people with limited health sensations. The objectives of the study are to establish preferences in priority relationships between healthy people and people with a limited desire for health based on the experimental study. The research methods are analysis of scientific literature, generalization and systematization of scientific approaches, theories and concepts, questioning, observation, sociometric methods of analysis, statistical methods of analysis. The results are as follows: outcome from the results of a theoretical study of the problem of the formation of value orientations of a person.

Analysis of the Motivation of Chinese Students to Study the Disciplines of Educational Programs in Russian at a Russian University

Yu Qi

Smolensk State University, Smolensk

Key words and phrases: motivation; integrative motivation; instrumental motivation; intrinsic motivation; increased motivation; self-efficacy; self-regulation.

Abstract: The purpose of the study is to analyze the motivation of Chinese students to master the disciplines of educational programs in Russian. The objectives are to identify the differences in the motivation of Chinese students to study the disciplines of educational programs depending on the level of education at a Russian university, and also to explain these differences. The research hypothesis is as follows: if the motivation for Chinese students differs depending on culture and identity, then the analysis of differences in integrative, instrumental, intrinsic and extrinsic motivation to master educational programs in Russian, as well as potential motivational factors explaining these differences. Longitudinal research methods are a synthesis that focuses on qualitative indicators of motivational differences. The results of the study are to determine the types of motivation that play a significant role in the development of educational programs in Russian for Chinese students. Integrative and intrinsic motivation of students is a prerequisite for improving the academic performance of Chinese students.