



DIGITAL TRANSFORMATION OF SOCIETY: THEORETICAL AND APPLIED APPROACHES

Katowice, 2021



DIGITAL TRANSFORMATION OF SOCIETY: THEORETICAL AND APPLIED APPROACHES

Edited by Magdalena Wierzbik-Strońska
and Oleksandr Nestorenko

Series of monographs
Faculty of Architecture,
Civil Engineering and Applied Arts
University of Technology, Katowice
Monograph 46

Publishing House of University of Technology, Katowice, 2021

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Series of monographs Faculty of Architecture, Civil Engineering and
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Monograph · 46

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ISBN 978-83-960717-2-9

Editorial compilation

Publishing House of University of Technology, Katowice
43 Rolna str. 43 40-555 Katowice, Poland
tel. 32 202 50 34, fax: 32 252 28 75

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3.5. DEVELOPMENT OF SPECIFIC REQUIREMENTS FOR UNLOADING VEST WITH A SET OF BAGS AND MATERIALS FOR THEIR MANUFACTURE

The urgency of providing the Air Force of the Armed Forces of Ukraine with modern models of protective equipment, in particular during the performance of professional duties of pilots, is indisputable. Experience in the operation of flight uniforms, statistics of injuries and deaths of pilots show that the existing types of protective kits have low reliability and ergonomics, do not provide a sufficient level of protection against all types of hazards and the implementation of specific wearing needs in the environment and combat conditions. measures correspond to the specific level of requirements for them, and in some cases create additional risk factors.

The use of an unloading vest with a set of bags is aimed at ensuring the normal functional state of the pilot's body during flight and on the ground, effective performance of combat missions, maintaining viability and saving lives in case of forced departure and after landing⁹⁷¹.

It should be noted that when performing professional and service activities, the pilot experiences a constant but variable in intensity and duration of the impact of various dangerous and harmful environmental factors, which should be considered and taken into account depending on the stage of the pilot's tasks, including flight, emergency leaving the aircraft or after landing⁹⁷².

It is established that flights can be accompanied by a sharp change in climatic parameters, which affect the environment outside the aircraft and, accordingly, the microclimate in the cockpit during piloting. Atmospheric pressure, low oxygen level in the atmosphere, gas composition of air, relative humidity and temperature depend on the climatic zone and altitude. Characteristic arms and postures are significantly affected by the size of the crew cabin, which is characterized by long-term static body position⁹⁷³. During the flight on the aircraft are dangerous and harmful pressure drops, increased noise, vibration, electromagnetic radiation, increased and decreased temperature, acceleration, physical and psychophysiological overload. Due to the influence of these dangerous and harmful factors, flight crew members can develop occupational diseases, including altitude sickness, decompression, deafness, gastrointestinal diseases, cardiovascular, upper respiratory diseases, infectious and acute respiratory diseases^{974, 975}.

Forced abandonment is particularly dangerous as it can lead to individual risks, injuries and fatalities. One of the most dangerous factors during a free fall is the effect of overload on the body of the military, which depends on wind speed and weight of the pilot with a full set of protective equipment. Depending on the altitude at which the forced departure of the aircraft, the microclimatic indicators of the environment change. The minimum rescue time in the event of an emergency encourages the pilot to multifactor analysis of the environment for a safe landing. The possibility of avoiding injuries at the time of landing depends on the physical training of the military and the skills of controlling the emergency parachute system acquired by him^{976, 977, 978}.

⁹⁷¹ Ergonomics and design. Design of modern types of clothing: textbook. way. / M. B. Kolosnichenko, L. I. Zubkova, K. L. Pashkevich and others. K.: PE "SPC "Profi", 2014. 386 c.

⁹⁷² Kolosnichenko M. V. Development of approaches to assessing the quality of thermal protective clothing. Light industry. 2000. № 1. P. 40-41.

⁹⁷³ Tretyakova L. D, Tokar G. Working conditions of rescuers in airports of civil aviation of pilots. Problems of labor protection, industrial and civil safety: a collection of materials of the twenty-first all-Ukrainian scientific-methodical conference (with the participation of students) (November 18-20, 2019, Kyiv), p. 310-314.

⁹⁷⁴ Tokar G. N., Rubanka A. L., Ostapenko N. V., Tretyakova L. D. Analysis of the operating conditions of unloading vests for military personnel. Scientific and technical conference of students, undergraduates and doctoral students. Secția textile și poligrafie Subsecția (March 26-29, 2019, Kishinev). Ch.: Technique – UTM, 2019. S. 329-330.

⁹⁷⁵ Tokar G. M. Design of design of protective clothing for pilots of military aviation / G. M. Tokar, A. I. Rubanka, N. V. Ostapenko, L. D. Tretyakova // Urban environment – XXI century. Architecture. Construction. Design: abstracts of reports of the III International Scientific and Practical Congress, Kyiv, March 14-16, 2018. – Kyiv: NAU, 2018. – P. 278-279.

⁹⁷⁶ Skrypkin O. G. The main influential factors in the genesis of professional fears of military pilots. Bulletin of the National University of Defense of Ukraine 1 (32) / 2013. P. 288-294.

⁹⁷⁷ Ponomarenko V. A. Flight safety is the pain of aviation. M.: Flinta, 2007. 416 p.

⁹⁷⁸ The influence of overloads on the pilot's body. Aviasafe: website. URL: <https://airlebedev.wordpress.com>.

It should be noted that for a complete description of the effect of overload on the military, it is necessary to specify not only the magnitude but also the duration and rate of increase of overload. On the basis of the conducted analysis of professional and service activity of flight crew features of performance of official duties during flight are defined^{979, 980, 981}:

- originality of tasks and results (transfer of the aircraft from one state to another, keeping it in a certain position to perform training and combat and other tasks, constant combat readiness);
- extreme limitation of the working area in the cockpit, the need for mandatory use of special protective equipment and uniforms;
- regulation (subordination to comply with commands, strict compliance with the requirements of regulations on professional and service activities);
- use of specific means of activity (aircraft and piloting operations);
- ability to find rational solutions in the management of aircraft technical systems in any flight conditions, to navigate in three-dimensional space;
- influence of hypodynamic and neuropsychological mode of activity on duration and reliability of performance of duties by the pilot;
- intensive functioning of the psyche due to the high pace of activity and the need to process a large amount of information in a short period of time;
- high volitional, emotional, nervous and intellectual tension in the process of flying;
- the possibility of an extreme situation at any time during the flight;
- increased level of responsibility for the results of activities and decisions.

After landing, the pilot must analyze his condition and environmental conditions, make decisions on tasks aimed at protection, preservation of life and health. During the stay in a remote uninhabited area and / or in the enemy's territory, the influence of physical, psychophysiological dangerous and harmful factors on the pilot increases. The possibility of a dangerous situation requires the military to be in constant combat readiness and quickly use weapons if necessary⁹⁸².

The main features of the service of servicemen in the Air Force are constant readiness for long-distance flights, parachuting in different weather and climatic conditions at any time of the year and time of day, readiness for decisive combat after landing and / or for fast and covert maneuvering. in an unfamiliar area. All this requires from the military aviation physical endurance, emotional stability, willpower, technical and other knowledge and skills.

The nomenclature of dangerous and harmful factors needs a comprehensive assessment for further development of the unloading vest with a set of bags for the pilot of military aircraft (Fig. 1).

The study of the conditions of professional activity of crew members allows us to establish that the group of adverse physical factors includes increased noise (engine operation), infrasound (communications), ultrasound (on the airfield, near the aircraft with engines running), vibration (equipment operation). aircraft), the effect of accelerations and overloads (during the forced departure of the aircraft), sharp fluctuations in barometric pressure, reduced partial pressure of oxygen, air pollution of the cockpit with toxic substances, adverse microclimate parameters, electromagnetic radiation, frequency range, electrostatic pulsation of light flux, reduced contrast, the possibility of an emergency^{983, 984, 985}.

⁹⁷⁹ Prikhodko O. A. Psychological features of military-professional activity of flight crew of internal troops of the Ministry of Internal Affairs of Ukraine and their influential flight safety. The collection of scientific works of the Academy of Internal Troops of the Ministry of Internal Affairs of Ukraine is registered by the Ministry of Justice of Ukraine. № 1-2 (9-10). H.: Acad. VV MIA of Ukraine, 2007. S. 61-66.

⁹⁸⁰ Fundamentals of aviation psychology: Method. way. / Ed. O. F. Zakharova. – H.: XI Air Force, 2004. – 104 p.

⁹⁸¹ Grigorieva L. I. Risk in life safety: assessment and management: guidelines for independent work and individual calculation work. Nikolaev: ChDUim Publishing House. Petra Mogili, 2013. 52 p.

⁹⁸² Tachinina O. M. Method of preserving the survivability of the system "aircraft-crew-environment" in flight: Abstract of the dissertation for the degree of candidate of technical sciences. 2007. 18 p.

⁹⁸³ Ivanov P. I., Sitailo M. V., Ivanov R. P. Methods of reducing the minimum safe height of application (landing) of parachute systems. Science and Technology of the Air Force of the Armed Forces of Ukraine, 2013, № 4 (13). P. 40-45.

⁹⁸⁴ Dynamics: teaching method. way.: L. M. Zasedka, G. S. Manzhara, I. A. Petrus, I. L. Rubtsova, G. I. Salivon, N. O Shchetinina; for order. OV Forest. K., 2017. 36 p.

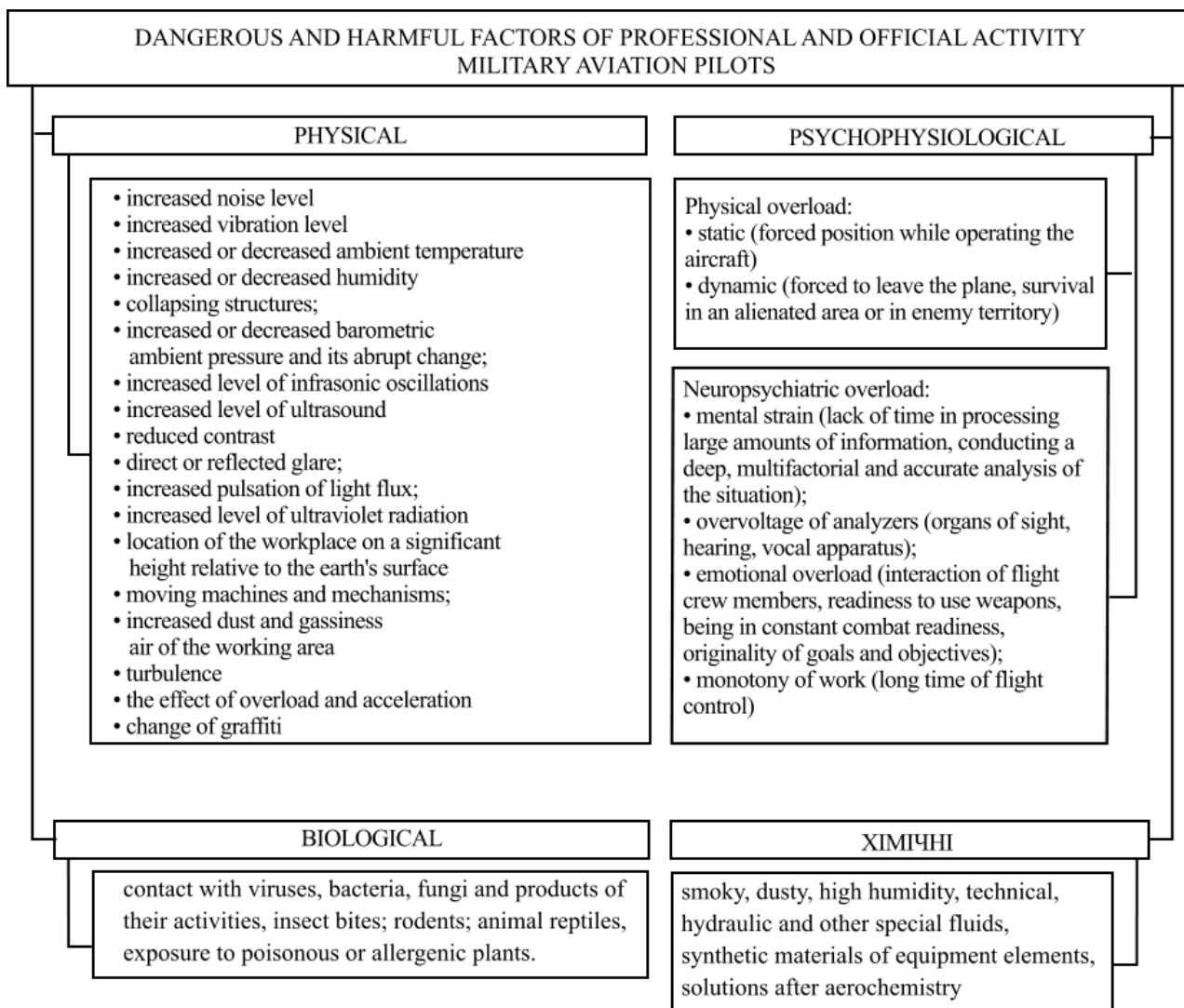


Fig. 1. List of dangerous and harmful factors in the performance of professional duties by military pilots

In addition to the list of dangerous and harmful factors regulated by the normative documentation, the physical ones must also include the influence of turbulence and the effect of overload, the change of gravity, which have a negative impact on the pilot's well-being⁹⁸⁶.

Chemical hazards and harmful factors include harmful chemicals in aircraft cabins, the sources of which can be fuels and lubricants, hydraulic and other special fluids, synthetic materials of interior elements, vapors of solutions after aerochemicals, smoke (in case of emergency)⁹⁸⁷.

After being forced to leave the aircraft and landing in different types of terrain (forest, field, mountains), the pilot may be exposed to biological factors, in particular during contact with fauna and flora, through the bites of various insects, rodents, reptiles, animals, poisonous or allergenic plants, as well as the influence of bacteria, fungi and their products, etc.

No less important is the study of dangerous and harmful factors of psychophysiological nature, in particular, neuropsychiatric overload caused by significant intellectual, sensory, visual and auditory loads. Emotional overload is directly due to the forced pace of professional duties, various actions of high accuracy in a clearly defined sequence in a shortage of time, a high level of

⁹⁸⁵ Dmitriev V. A. Substantiation of indicators of safety of landing of personnel at parachute landing. Weapons systems and military equipment, 2013, № 2 (34). Pp. 77-80.

⁹⁸⁶ Guide for parachute landing and rescue training of the Armed Forces of Ukraine. K.: MO Ukraini, 2003. 178 p.

⁹⁸⁷ Chubarova Z. S. Methods for assessing the quality of special clothing / Z. S. Chubarova. – M.: Lehprombytizdat, 1988. – 160 p.

responsibility for the implementation of combat missions and the preservation of equipment, as well as the lives of civilians.^{988, 989, 990}

When piloting, the pilot receives most of the information through a visual analyzer, which causes significant eye overload^{991, 992, 993}. Also, the voltage of the visual analyzer is caused by flights at night, which require maximum concentration. Mental overload is caused by a high rate of perception and processing of information, calculations and memorization of their results during piloting. The flight is characterized by long-term static body position, because on average 60-80% of the pilot's time the pilot is in a constant position, which leads to significant physical overload, including static.

Emotional overloads are caused by the interaction of pilots with weapons; psychological and socio-psychological - the relationship of the serviceman with members of the military staff.

Based on the study of professional and service activities of a military pilot, the nomenclature of dangerous and harmful factors was determined, which allowed to develop a topography of their impact on the unloading vest (Figs. 2, 3).

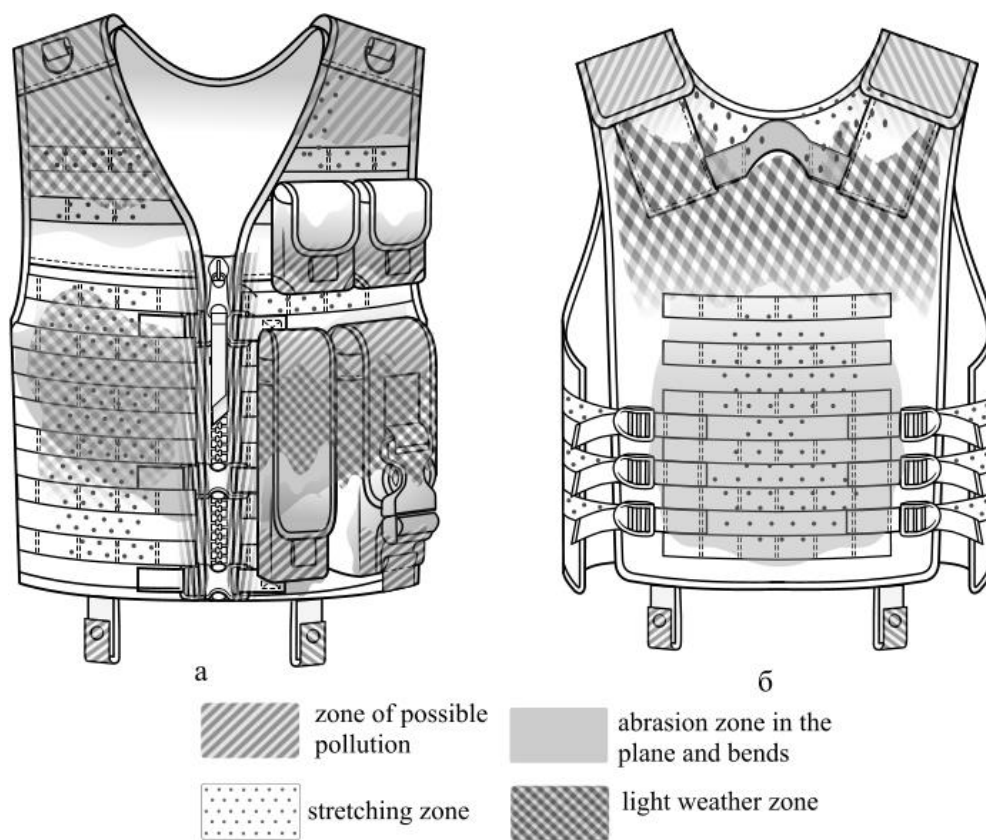


Fig. 2. Topography of the influence of dangerous and harmful factors that affect the unloading vest: a – front view; b – rear view

⁹⁸⁸ Airborne training. Fundamentals of airborne training: Textbook / A. P. Bagmet, S. I. Chernyaev, M. F. Pichugin, S. P. Boiler. Zhytomyr: ZHVIRE, 2006. 168 p.

⁹⁸⁹ Sanitary and hygienic characteristics of harm, danger, tension, severity of work of crew members of civil aviation aircraft – [Int. 1997-10-13]. M., 1997 – 23 p.

⁹⁹⁰ Aviation medicine. [Electronic resource] – Access mode:

http://www.jekabpilsflight.lv/doc/poleznoe/Aviacionnaja_medicina.pdf.

⁹⁹¹ Aviation medicine: method. instructions for the study of the discipline and preparation for practical training / comp. N. N. Vasitskaya, Yu. N. Tsyganov. – Ulyanovsk: UVAU GA (I), 2011 – 74 p.

⁹⁹² Efimenko V. V. Hygienic assessment of working conditions and prediction of health assessment of the Air Force engineering and technical personnel exposed to high-intensity noise during the maintenance of aviation equipment. / V. V. Efimenko, P. M. Sheshenov // Bulletin of the Russian Military Medical Academy. SPb., 2006. No. 1 (15) – 365 p.

⁹⁹³ Balchugov, V. A. // Modern technologies of restorative medicine: collection of scientific papers of the X international scientific-practical. conf. Sochi, 2008. S. 41-43.

The developed topography indicates the areas of influence of dangerous and harmful factors of the unloading vest, which are subject to the following factors^{994, 995}:

- abrasion in the plane and bends (caused by prolonged friction on certain areas of the product, especially often occurs in areas of layering equipment and interaction of equipment);
- tears, differences in the seams (caused by movements, the frequency of their recurrence and the lack of the necessary structural and technological elements in the areas with the greatest load);
- pollution (caused by exposure to oil on board the aircraft, environmental factors during and after landing on the ground);
- sweat (caused by increased body metabolism due to emotional overload);
- the effect of sedimentary weather (caused by the action of ultraviolet light);
- stretching (caused by the weight of bags with equipment).

Therefore, in the performance of professional duties, pilots are exposed to dangerous and harmful factors, the impact of which on the body must be taken into account when designing a vest with a set of bags, which will further optimize the design of the product.

Using a scientifically sound approach to solving the problem of design and engineering of a modern ergonomic unloading vest with a set of bags for Ukrainian military pilots, which will help reduce injuries and deaths due to dangerous and harmful factors during the tasks^{996, 997}.

Due to the change in tactics of hostilities, the improvement of weapons and military equipment, the requirements for a set of protective equipment are changing. The analysis of hostilities and local wars convincingly proves the need for continuous improvement of existing varieties and the development of new models of real property, in particular the unloading vest with a set of bags.

The design of an unloading vest with a set of bags for a military pilot must be preceded by the development of scientifically sound requirements for it. The level of protection of a serviceman depends on their reliability and the degree of consideration of the specifics of professional and service activities. Requirements for the protective equipment of servicemen are established by a number of legislative acts and normative documents, in particular national standards, the main part of which is harmonized with international and European ones⁹⁹⁸.

Unloading vest with a set of equipment bags must meet a set of developed strict and contradictory requirements due to its functional purpose. A number of standardized (mandatory) requirements apply to materials that are mandatory for the unloading vest. Another category of requirements is directly related to design and technological development, the list of which, along with standardized, should take into account the recommended (additional) indicators of reliability, ergonomics, aesthetics and economy.

The desire for a comprehensive solution to the formulation of quality is exposed to the difficulty of harmonizing requirements between technical, economic and regulatory indicators. Thus, the compliance of the protective properties and increase the durability leads to an increase in static loads, complication of movements, deterioration of heat transfer processes, increase in weight and cost⁹⁹⁹. The product must be designed in accordance with a full risk assessment of the pilot's professional performance.

The unloading vest is intended for placement and transportation of individual equipment and the carried emergency stock is used by pilots both as a part of a set of individual equipment, and

⁹⁹⁴ The human factor in the cockpit: technology of plane crashes [Electronic resource] – Access mode: <http://cripo.com.ua/stories/?p=60465/>.

⁹⁹⁵ Aviation Medicine Manual / ed. N. A. Razsolova. – 3rd ed., Rev. and add. – M.: Econ-Inform, 2006. – 589 p.

⁹⁹⁶ Legislation of Ukraine [Electronic resource]: Law of Ukraine "On approval of the Rules of medical support of flights of state aviation of Ukraine". – Access mode: <https://zakon.rada.gov.ua/laws/show/z1287-15>.

⁹⁹⁷ Aviation Medicine [Electronic resource] – Access mode: http://esu.com.ua/search_articles.php?id=42346.

⁹⁹⁸ Oliynyk P. V. Complete and regular equipment of the military medical service: Textbook for higher educational institutions / Vinnytsia: New book, 2005. – 368 p.

⁹⁹⁹ Shchepankov S. M. Characteristics of the difficulty and intensity of work of aviation specialists of the peacekeeping contingent Military Medicine of Ukraine. 2016. Vip. 23, pp. 245-255.

oremo from it. It must be all-season, consist of a sufficient and necessary number of bags for equipment and have an ergonomic and aesthetic design and technological solution.

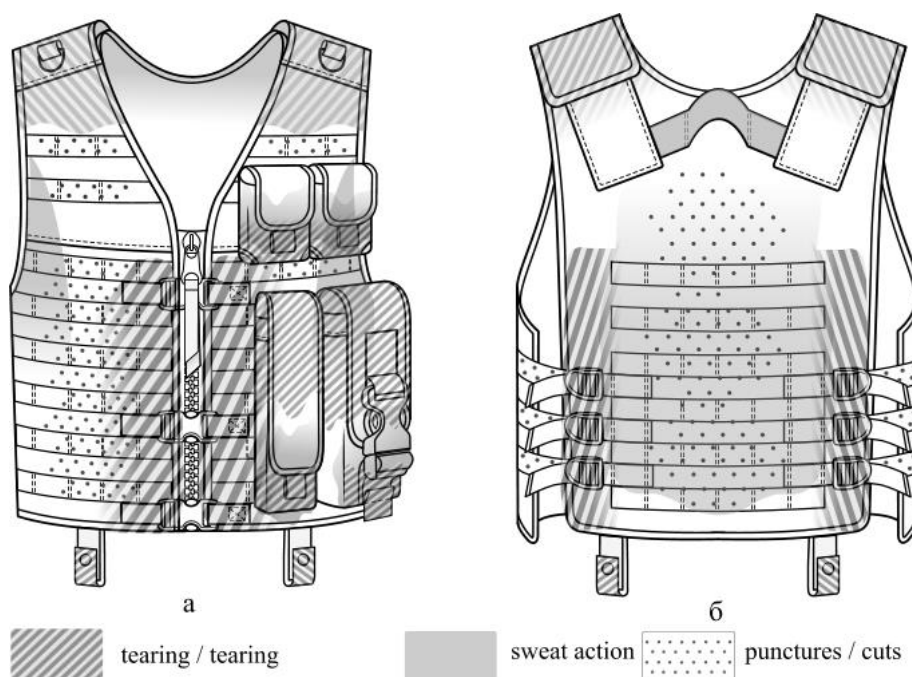


Fig. 3. Topography of the influence of dangerous and harmful factors that affect the unloading vest: a – front view; b – rear view

It is established that the pilot is overloaded during the flight, so the unloading vest with a set of bags should be of the lowest weight with constant strength and protection efficiency to reduce physical activity, ensure maneuverability and endurance. The implementation of this requirement can be achieved by using materials of appropriate surface density and a reasonable choice of wearable emergency stock.

To ensure the ergonomics of the unloading vest, the files and the back should be connected to each other along the shoulder and side lines with a textile clasp or strap and adjustable buckles¹⁰⁰⁰. The use of such design and technological elements provides a quick dressing / removal of the vest, as well as adjustment in size and height depending on the individual type of figure, taking into account the protective uniform. As the pilot is subjected to pressure during the flight by the seat belts, the design of the vest must be provided with fasteners that will not increase the pressure on the main equipment and will not cause additional risk factors. The size-of-height-adjusting fittings used shall not restrict the pilot's movements during piloting.

One of the most important requirements for the unloading vest with a set of bags is the quiet use of components, low optical visibility in different ranges of observation, the size of the equipment. To reduce the weight of the product, it is advisable to use mesh materials with additional reinforcement of textile straps in the areas exposed to the greatest load.

Ensuring quick dressing and resetting of equipment is achieved through the use of reliable and high-quality accessories (non-freezing, durable and silent types of fasteners, carabiners, fasteks, etc.). A detachable strap that extends through the clamps is used to securely secure the unloading vest along the bottom line and prevent it from moving during operation.

Given that the pilot is provided with a wearable emergency stock, which is in additional special bags, it is necessary to use a modular system to ensure the rational placement of equipment in accordance with personal military needs and free access to equipment in different positions and conditions. The fasteners should be easy to use and ensure a secure connection between the bag and

¹⁰⁰⁰ Ryabchikov N. L., Mokshina O. V., Deineka I. G. Improving the quality of garments by improving the objectivity of control. The quality of technology and education. 2013. No. 4. P. 24-28.

the vest through the fastening systems. The design of the unloading vest must provide for the presence of internal pockets to accommodate additional equipment or personal belongings of the pilot. To save various documents, it is advisable to use airtight pockets of the slit type (internal or external).

The use of a modular system of unloading vest provides the ability to use and quickly change interchangeable special bags for equipment, various equipment, ammunition and replacement units to it, as well as compatibility with previously developed similar models, backpack systems, backpacks and other equipment.

Equipment bags must have structural elements that increase the comfort when attached to the vest due to the fastening systems, filling with appropriate luggage in accordance with the size and dimensions, comfortable insertion and removal of items. Reliable storage of the contents of the bag and preventing things from falling out of it is achieved by using valves on the zipper, fastex, textile tape and more.

When water enters the bag, it is necessary to have a hole for its drain treated with eyelets. In addition, bags for small arms stores can be equipped with a removable (non-removable) jumper, which is located vertically or at an angle, designed to reduce the noise level when moving a serviceman. Information about the purpose of the product and each bag in the kit is provided by applying a transfer stamp on the front of the product.

The reliability of the unloading vest with a set of bags is determined by the trouble-free operation of all structural elements, the durability of the model (moral, physical), maintainability and dimensional stability. The requirements of economy are important, in particular profitability, the cost of the product, the cost of product care and so on. Indicators of aesthetics play an important role in assessing the appearance and artistic and color design of a material or product.

The efficiency of the unloading vest with a set of bags depends on the properties of the package of materials, which determine its ability to meet the requirements for protective, physical, mechanical and hygienic characteristics, and acceptable design and technological solutions. In accordance with the professional duties of a military pilot, in particular the likelihood of a fire on board the aircraft, the selected textile materials must not ignite, support combustion, melt, be resistant to tearing, abrasion. Materials and products of their decomposition must not contain dangerous chemical compounds that can cause skin irritation or allergenic effects and carcinogenic effects, emit chemicals into the environment, cause discomfort to the serviceman during operation.

One of the most important requirements is the possibility of camouflage and shelter on the ground, which is realized through the use of materials with appropriate patterns for the manufacture of an unloading vest with a set of bags.

The use of tape for edging the sections of the unloading vest and equipment bags reduces the stiffness and thickness of the seams, due to the lack of layering of materials and the use of rational processing methods, which increases the ergonomics of the product.

Therefore, taking into account and strict compliance with the requirements for the design and technological solution of the unloading vest with a set of bags and materials for their manufacture helps to ensure high efficiency of tasks and reduce the impact of negative environmental factors on the pilot. Non-compliance of the product with the requirements may cause disorientation, maladaptation, loss of military control of their condition, refusal to work. Constant volitional efforts aimed at overcoming negative emotions, fear, maintaining a high level of efficiency for combat missions, causes rapid emotional exhaustion of the body.

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ANNOTATION

Part 1. INNOVATIVE AND INFORMATION TECHNOLOGIES IN EDUCATION: THEORETICAL ASPECTS

1.1. Mariia Bobrova, Hanna Arkushyna, Svitlana Koval. USE OF SPECTROPHOTOMETRIC NITRO BLUE TETRAZOLIUM TEST TO ASSESS THE LEVEL OF SUPEROXIDE ANION-RADICAL GENERATION IN TISSUES

The research is based on the use of spectrophotometric nitro blue tetrazolium test (NBT-test) to assess the level of generation of superoxide anion radical in living cells under the influence of environmental factors. The method of detection of active forms of Oxygen in different plant organs at different stages of vegetation is considered. Spectrophotometric NBT-test, in contrast to cytochemical, is not only qualitative but also quantitative, has much greater accuracy and reliability of results, less dependence on the duration of exposure of experimental samples. The use of spectrophotometric NBT-test makes it possible to detect the reaction-response of the organism to the influence of factors of different nature, to assess the physiological and biochemical mechanisms of this response.

1.2. Zhanna Chernyakova, Olga Kryvonos, Tetiana Buhaienko. DEVELOPMENT OF RESEARCH COMPETENCE OF FUTURE DOCTORS OF PHILOSOPHY IN THE PROCESS OF TEACHING THE DISCIPLINE “ACADEMIC WRITING”

The study is devoted to the theoretical substantiation of the process of formation of research competence of future doctors of philosophy in the process of doctoral training. The essence of the notions of key categories of research “competence” and “research competence” has been analyzed. Based on the theoretical analysis of scientific research, the components of research competence of future doctors of philosophy have been identified and characterized; they are the following: cognitive, motivational-value, operational-activity, reflexive. On the example of the discipline «Academic Writing» the method of forming the research competence of future doctors of philosophy in the specialty 011 Educational, pedagogical sciences in the process of doctoral training has been developed and theoretically substantiated. The methodological approaches and principles of formation of research competence of future doctors of philosophy have been clarified. The leading methods, forms and means of formation of research competence of future doctors of philosophy in the process of teaching the discipline «Academic Writing» have been singled out and characterized.

1.3. Yuliya Fedorova, Olga Tsybulko, Pavel Davidov. INNOVATIONS IN THE INTERDISCIPLINARY DISCOURSE OF EDUCATION

The purpose of the study is to analyze the innovations in the interdisciplinary discourse of education. A disciplinary-structured education could today contradict its innovativeness, since new knowledge arises only in the space of its universal connections and relations, in those interdisciplinary nodes-spaces where many scientific disciplines converge, the development of which contributes to constantly developing innovative production.

1.4. Svitlana Hryshko, Larysa Prokhorova, Oleksandr Nepsha, Tatyana Zavyalova, Valentina Ivanova. INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE IMPLEMENTATION OF THE SYSTEM OF CONTROL, ASSESSMENT AND MONITORING OF EDUCATIONAL ACHIEVEMENTS OF STUDENTS

The current state of informatization of education is characterized by the development of means and technologies of aggregation of electronic dynamic educational objects, increase the level of intellectualization of the means of their appropriate and rational integration, ensuring the flexibility and adaptability of the created computer-oriented educational systems in accordance with the individual needs of a wide range users, which will in some way transform the study of processes measuring academic achievement by developing unified methods, models and scenarios. Among the most important tools and means of open systems Education experts distinguish the following: scientific and educational information networks, special technologies to support virtual learning activities, the global network of teachers Innovative Teachers Network, special technologies to improve efficiency design and use of computer-based training systems, electronic subject-information resources, modern mobile means, technologies network e-distance learning, e-communications support tools.

1.5. Andrii Lagun. FEATURES TEACHING INFORMATION SECURITY ISSUES FOR STUDENTS OF COMPUTER SPECIALTIES

This monograph analyzes the problems of cybersecurity in the modern world, including methods to attack and protect computer information systems. The first part of the work is devoted to an overview of the methods of social engineering, through which attackers have an impact on the weakest link in the information system – human. With the help of influence through social networks, medical records, e-mails, mobile means of communication, criminals can obtain any information related to identity and use this information for criminal purposes – from money theft to psychological and other influences. The protection of information in computer networks, in particular from computer viruses, is also considered. The second part of the work considers the study innovative technologies of information protection by computer specialties students, in particular at the Lviv Polytechnic National University.

1.6. Tetyana Pomirkovana. PECULIARITIES OF TEACHING SCIENTIFIC AND TECHNICAL TRANSLATION

The purpose of the study is to analyze the organization of the educational process in the study of scientific and technical translation to the students in the areas of computer science, IT, communications technology, and automation technology. The article deals with the issues and methods of teaching translation of scientific and technical papers to engineering students from a linguistic point of view. The paper analyzes stylistic, lexical, and grammatical peculiarities of scientific and technical papers and ways of translation English terminology into Ukrainian language. The study of terminology peculiarities is based on the material of technical literature due to its extensive use in modern life and production. Special attention is paid to the principal characteristics and difficulties of such training. The basic problems that arise in teaching scientific and technical translation are analyzed. Moreover, the author succinctly outlined the key concepts in translation techniques.

1.7. Vladyslav Pyurko, Anhelina Korobchenko, Svetlana Kazakova. INTERNATIONAL EXPERIENCE OF PROFESSIONAL TRAINING OF SPECIALISTS IN PHYSICAL THERAPY AND ERGOTHERAPY IN THE CONTEXT OF THE FORMATION OF INCLUSIVE EDUCATIONAL SPACE

The article describes the international experience of professional training of specialists in physical therapy and ergotherapy in the context of the development of the inclusive educational environment, in particular, attention is focused on studying the features of the formation

of professional training of specialists in physical therapy, ergotherapy based on the analysis of the content of educational programs of leading higher education institutions in Norway, Austria, Great Britain, Bulgaria, Portugal. An analysis of the experience of other countries will enable the use of positive trends in domestic training of specialists in physical therapy and ergotherapy. The study of the training system of physical therapy specialists in foreign countries proves that it generally takes into account the purpose and principles of the Bologna process. Most differences between them is the number of educational and clinical hours. The main organizational and methodological aspects of the formation of professional training of specialists in physical therapy, ergotherapy in foreign institutions of higher education is defined: self-study, constant professional improvement from the first training semesters, interprofessional interaction, stable correlation of theoretical and practical training, the possibility of internship abroad.

1.8. Olena Shenderuk. A COMPARATIVE RESEARCH OF PERSONAL TRAITS OF MALE AND FEMALE CADETS STUDYING IN THE EDUCATIONAL INSTITUTION WITH SPECIFIC CONDITIONS OF STUDY

Managing the unprecedented challenges of digitalization and information requires self-sufficient individuals, especially those who study in institutions with specific conditions of study. The phenomenon of aggressiveness and non-aggressiveness were chosen and taken into account in this article. This is comparative research to determine level of personal traits of male and female cadets and compare them. R. B. Cattell's questionnaire was used as the instrument to identify whether there is any difference between male and female cadets. Then «t» test was used to test the significance of mean difference among the factors between male and female cadets. Besides, A. Bass and A. Darka's questionnaire was used. The results of the study showed that there was no difference in personal traits such as aggressiveness and non-aggressiveness among male and female cadets.

1.9. Olena Starynska, Liubov Spivak, Zhanna Melnyk. MENTAL HEALTH AND SOCIAL INTELLIGENCE OF STUDENTS WITH SPECIAL EDUCATIONAL NEEDS OF UKRAINIAN HIGHER EDUCATION INSTITUTIONS

The purpose of the scientific research is an empirical study of the mental health and social intelligence of students with special educational needs of Ukrainian higher education institutions. Empirically found that most students have average levels of mental health and psychological well-being and a high level of social well-being. The level of social intelligence of most students is average, which is confirmed by their ability to understand different life situations, nonverbal and verbal behavioral expression and anticipate the behavior of others. Students were identified by a statistically significant direct and strong relationship between mental health and the ability to understand verbal behavioral expression and the ability to anticipate other people's behavior, as well as between social well-being and the ability to understand verbal behavioral expression and a general indicator of social intelligence; feedback and strong relationship between psychological well-being and the ability to understand nonverbal behavioral expression.

1.10. Vadym Tiutiunyk, Olha Tiutiunyk, Yevhen Huriev. DECISION SUPPORT UNDER CONDITIONS OF UNCERTAINTY OF INPUT INFORMATION IN EMERGENCY SITUATIONS

In order to develop the scientific and technical foundations for creating a support system for making anti-crisis decisions in the system of situational centers of the Unified State Civil Protection System, the paper presents a methodology for substantiating optimal anti-crisis solutions to ensure an appropriate level of safety of the state in the emergency situations (ES) of various nature in conditions uncertainty of input information for experts of the system of situational centers.

1.11. Leonid Tsubov, Iryna Chorna. USING THE DIDACTIC POSSIBILITIES OF A FOREIGN LANGUAGE TO FORM THE PROFESSIONAL MOBILITY OF FUTURE SPECIALISTS IN ECONOMICS

The article reflects the importance of using the didactic possibilities of a foreign language for the formation of professional mobility of future economists. Didactic principles, styles and methods of teaching a foreign language in the process of training future specialists in economics, which will promote better, effective acquisition of knowledge, awareness of their importance and necessity in future professional activities, which will ensure the formation of students' desire to learn throughout life. external circumstances. It is substantiated that the practical application of the relevant didactic principles of teaching a foreign language to future economists will effectively contribute to the formation of their professional mobility.

1.12. Olga Tsybulko, Olena Potsulko, Olena Aleksieieva. FEATURES OF DISTANCE LEARNING INNOVATIONS IN HIGHER SCHOOL PEDAGOGY DURING A PANDEMIC CRISIS

The purpose of the study is to analyze the features of distance learning innovations in higher school pedagogy during a pandemic crisis. Distance learning is a new, specific form of education that ensures the interaction of the teacher and students with each other at a distance, reflecting all the components inherent in the educational process (goals, content, methods, organizational forms, teaching aids) and implemented by specific means of Internet technologies or other means providing interactivity.

1.13. Yuliia Ursakii. REALITIES OF THE INTRAPRENEURSHIP IN THE EDUCATIONAL PROCESS

In this article the author considers the use of entrepreneurship as conceptual teaching methods in higher education. The analyzing problems of youth migration and competitiveness of higher education institutions in Ukraine revealed the need to study educational activities in terms of entrepreneurship. The most relevant innovative technologies are identified, which require modern educational process: structural-logical technologies, integration technologies, professional-business game technologies, training tools, dialogue-communication technologies. Since innovation requires new ways of thinking in the working environment, intrapreneurship is the optimal solution to this process. In this research, the development of intrapreneurship is examined from two perspectives: an intrapreneur-teacher and an intrapreneur-student. The main elements that influence the development of intrapreneurship in higher education institutions are identified: managerial support, freedom in the workplace, remuneration, time. Measures for the effective implementation of intrapreneurship in the domestic educational space are proposed.

1.14. Iryna Voytiuk. NON-TRADITIONAL IMAGING ACTIVITY AS AN INNOVATIVE STRATEGY FOR CORRECTING THE THINKING OF A SENIOR PRESCHOOL

The article argues that non-traditional painting is an innovative strategy for the development of thinking of older preschoolers, a universal means of correcting thinking and involves the formation of experience in expressing attitudes to the environment, to themselves, optimistically predict further personality formation. Non-traditional pictorial activity is presented as an effective tool for the formation and correction of thinking of children with intellectual disabilities. It is used as an element of psychocorrection, thereby affecting the quality of verbal contact.

Correction of thinking with the help of drawing is carried out through the projection of individual feelings of the child, reflects the attitude of the preschooler to others, and most importantly – to himself.

1.15. Sami Abuvatfa. METHODS OF TEACHING MEDICAL DISCIPLINES USING INFORMATION TECHNOLOGY

The article analyses the work and approaches of domestic and foreign scientists on the implementation of information technologies, the creation and methods of implementation of distance learning in institutions of higher medical education. The features of the introduction of distance learning at the Donetsk National Medical University are considered. Described methods of work, features and examples of using the educational project "NaUrok", educational online tool Google Classroom, medical computer programs. The author of the article also focuses on the problematic issues of distance learning in medical disciplines.

1.16. Svitlana Andriychuk. DEVELOPMENT OF A TOLERANT ATTITUDE TO INCLUSIVE EDUCATION IN MODERN UKRAINIAN SOCIETY

The article describes the legal framework on the basis of which inclusion is implemented. Statistical information on the involvement of children with special educational needs in general secondary education institutions in Ukraine and Chernivtsi region is provided. The difficulties of introduction of inclusive education are defined. The necessity of formation of tolerant public attitude to inclusive education as one of the basic preconditions of effective introduction of inclusion in the educational environment is proved.

1.17. Mariana Baran. TRANSITION TO INFORMATION AND COMMUNICATION TECHNOLOGIES IN EDUCATION: PROBLEMS AND PROSPECTS

At this stage of development of society, which is happening more rapidly, the requirements for its members as drivers of this development are increasing. Old rules and canons of life lose their basis and are forced to change. Therefore, the education of modern individuals should be treated more meticulously, taking into account all available life circumstances and future prospects. Education radically changes its structure, methods and means. When transforming into new conditions for the development of society, many problems arise that can be solved not as quickly as conditions require, but also many prospects that open unlimited opportunities for the development of both the individual and society as a whole. Therefore, consideration and analysis of changes in education requires thorough research and is extremely important today.

1.18. Oleksandr Bashura, Olga Naboka, Tetyana Martyniuk, Maryna Kobets, Yuliya Kobets, Natalia Malinina, Olena Ibrahimova, Ilya Gaponov, Olga Filiptsova. DEVELOPMENT AND USE OF DISINFECTANTS IN VETERINARY MEDICINE

The transition of educational institutions to distance education is an important experience, as a result of which it is possible to draw conclusions and work on mistakes, which will bring learning to a new level. Distance education is very flexible and diverse. Each institution can choose its own style of study and reveal itself from the innovative side. For the first time, an analysis of the dependence of the success of students studying at distance learning on their personal characteristics. The Eysenck's test on determination of introvert and extrovert, test on type of perception is used in the work. A survey of students in grades 10-11 of the Kharkiv Scientific Boarding Lyceum "Giftedness" was conducted. Our research has shown that personality type affects the effectiveness of distance education. It is determined that the type of perception does not affect the success of distance education and depends on the type of teaching subjects.

1.19. Anton Bodnar. ADAPTIVE CHANGES IN THE ORGANISMS OF YOUNG WOMEN UNDER THE INFLUENCE OF DANCE AND STRENGTH FITNESS

The article reflects the results of studies of adaptive changes in the body of women 18-21 years old when using fitness programs different in structure and content. The dynamics of morphometric parameters and the level of cortisol in the blood serum of young women was used as a criterion for assessing adaptive changes.

The study involved two groups of women aged 18-21 years who have approximately the same level of physical fitness. Group A was engaged in strength fitness, group B – in dance fitness.

The study lasted for 3 months, the body measurements were performed three times during the pedagogical experiment (at the beginning, in the middle, at the end), blood for biochemical analysis was taken before the training and immediately after it at the beginning of the study and then in the same manner at the end of the research.

1.20. Nelly Bondarenko, Serhii Kosianchuk. GENERAL TEACHING METHODS AS A DIDACTIC TOOL OF INTELLECTUALIZATION OF EDUCATION

In the article, the authors consider a topical issue related to the formation of the Ukrainian national patriotic elite (visionaries, strategists, able to respond to modern challenges, design and build a successful European future of Ukraine). Emphasis is placed on the role of knowledge in the intellectualization of the educational process, the list of intellectual skills is determined, key categorical concepts are revealed. The role, essence and mechanisms of application of general educational methods which are directed on development of intellectual potential, on development of thinking, speech, cognitive, research and creative activity of pupils are characterized.

1.21. Vladyslav Velychko, Olena Fedorenko. PEDAGOGICAL EXPENDITURE OF USING FREE SOFTWARE IN THE EDUCATIONAL PROCESS OF PRE-SERVICE TEACHERS OF MATHEMATICS, PHYSICS AND PHYSICS

The use of information and communication technologies in educational activities cannot be an end in itself. Each element of the educational process must perform its tasks, solve the functions assigned to it, lead to the solution of partial and general tasks. The article is devoted to the issue of determining the criteria of pedagogical expediency of using free software in the educational process during the professional training of pre-service teachers of mathematics, physics and computer science. The article emphasizes the importance of introduction, implementation and application of new approaches to the educational process in pedagogical institutions of higher education. It also gives a description of the feasibility of free software using in the educational process. The methodical purposes which realization by means of use of the free software is expedient in preparation of pre-service teachers of mathematics, physics and computer science are presented.

1.22. Stella Gornostal, Olena Petukhova, Ruslan Marchuk. FEATURES OF THE USE OF INFORMATION TECHNOLOGIES IN PROFESSIONAL DISCIPLINE DISTANCE TEACHING

Modern directions of teaching professional disciplines in higher educational institutions are analyzed. The main tasks for teachers, as well as ways of their solving for mastering special knowledge by applicants for higher education, have been determined. Peculiarities of mastering the practical component of disciplines are analyzed, which is connected with the need to obtain special knowledge and skills necessary for a graduate in practical activities. It is shown that different information technologies are able to increase the informativeness of classes, the quality of learning, to reproduce different versions of events in a matter of minutes. Peculiarities of development and application of such forms of distance learning as e-textbook, distance course, online testing, calculation programs are analyzed. The positive attitude of entrants to the use of information technologies was noted.

1.23. Nadiya Dubrovina, Lidiya Guryanova, Vira Dubrovina, Yurii Kurnyshev. INNOVATIVE APPROACHES TO TEACHING SOME SPECIALIZED DISCIPLINES AND CONDUCTING RESEARCH IN MEDICAL AND SOCIAL PROJECTS

The article considers modern concepts for the implementation of the approach, which requires a condition of comprehensive care, where the focus is on the individual, which is considered as a holistic bio-psycho-social being, which is in a certain environment and state of health. The basic postulates that form the basis of the concept of comprehensive medical and social care and individualized approach to the needs of the patient are identified. The list of general and national programs where innovative approaches and models are applied within the concept of complex medical and social care and patient-oriented approach is given.

1.24. Oksana Ivleva, Lyudmyla Nalyvayko. SUPPORT MEASURES FOR LEARNERS IN HIGHER EDUCATION

Ukraine's European integration is a major and unchanging foreign policy priority, which envisages the deepening of relations between Ukraine and the EU in many spheres of life. The organization of the educational process at the university is based on legal documents and the purpose of the educational process in the European Higher Education Area is to train competitive professionals, acquisition of the necessary general and professional competencies in accordance with the levels of the National Qualifications Framework, as well as opportunities for personal development. Currently, the traditional education system is facing some difficulties due to the rapid spread of COVID-19 and the closure of schools and higher education institutions. Distance learning immediately became a major trend in educational technology, leading to an increase in demand for online educational platforms. Ukrainian universities are committed to providing a comfortable learning environment for all students who enroll.

1.25. Sergiy Karikov. TO THE PROBLEM OF TEACHING SOCIAL AND HUMANITARIAN DISCIPLINES AT THE NATIONAL UNIVERSITY OF CIVIL DEFENCE OF UKRAINE: TRADITIONS AND INNOVATIONS

The article presents the characteristics of social and humanitarian disciplines in the modern educational space. Traditions and innovations in the study of courses "Philosophy", "Philosophy and Methodology of Science" and "Culturology" based on the experience of teaching at the National University of Civil Defense of Ukraine are analyzed and their role for training of specialists is determined. The attention to the peculiarities of conducting training sessions during the COVID-19 pandemic is paid.

1.26. Kateryna Kirkopulo, Viktoriya Dobrovolska, Vitalii Dobrovolskyi. GAMIFICATION AS AN INNOVATIVE METHOD OF INCREASING THE LEVEL OF COGNITIVE INDEPENDENCE IN STUDENTS

The article considers the relationship of such concepts as the educational environment represented by the higher education institution; cognitive independence as an important component of the "lifelong learning" paradigm; mechanism of motivating students to study and self-development; gamification, as a tool to encourage students to independent work and cognitive activity within the study in higher education. An attempt is made to combine theories of human typologies by motive for action and the way of motivation by some game component.

1.27. Oksana Kolesnyk. IMPLEMENTATION OF EUROPEAN APPROACHES AND NEW METHODS OF TRAINING LEADER OFFICERS

The article considers the need and methods of training young officers with leadership skills according to the new European model. The author pays considerable attention to the problems of this study in the Ukrainian space, turns to modern psychologists who study this topic, as well

as methods and achievements today. It is worth noting that the article clearly describes the results and reflections on the real future assessment of the situation with leadership in the military, which can not but draw the reader's attention to their own reflections on this topic and agree or disagree with the author.

1.28. Larysa Kornytska. MODERN MODERN METHODS OF CLOTHING DESIGN-PROJECT IN THE CONDITIONS OF THE EDUCATIONAL PROCESS

To date, a wide base of knowledge in the field of shaping, which is formed by a set of methods, principles, techniques, and tools of design. Despite the variety of existing solutions in the field of shaping, there is a need for research and search for new promising developments in the design of clothing. That is why mastering modern methods of design in the training of future designers, occupies one of the key places and contributes to the formation of their specific associative and associative-figurative thinking, creative imagination, intuition, creative abilities. Therefore, the use of methods that promote creative opportunities and stimulate the creative imagination in the design process, in particular clothing, based on theoretical and experimental provisions of its formation is relevant, which requires their study and implementation in the educational process of design professionals, including sewing.

1.29. Serhii Lazorenko, Stanislav Lazorenko, Tetiana Buhaienko. IMPROVEMENT OF THE METHODS OF DEVELOPMENT OF THE FREE-STYLE WRESTLER'S PHYSICAL QUALITIES AT THE STAGE OF SPECIALIZED BASIC TRAINING

Freestyle wrestling, as a kind of sport, is a complex type of competitive activity in terms of coordination, limited by the current competition regulations. In recent years, the rivalry between athletes has increased significantly. This fact led to an even greater escalation of rivalry in the big arena. The issue of improving the results of the competition is closely related to the optimization of the means and methods of the training process. The process of development of the athletes' physical qualities occupies a special place among the means and methods of the training process. Formation of technical and tactical skills as a guarantee of successful performance at competitions of different levels and status directly depends on the development of athletes physical qualities. Therefore, the author's team of the article, taking into account the wishes of coaches of children's and youth sports schools, which have a wrestling department, decided to provide the author's technology for the development of the wrestler's physical qualities.

1.30. Ruslan Meleshchenko, Oleksandr Cherkashyn, Anton Chernukha. THE EDUCATIONAL WORK WITH PRIMARY SCHOOL CHILDREN WHILE TEACHING THE BASICS OF FIRE SAFETY

In the article we described the forms and methods of educational work with the younger students, are the most effective on forming of knowledge, abilities and skills in the field of fire safety. The theoretical knowledge in the field of fire safety is necessary not only for the younger students, but also the development of the necessary practical knowledge and skills; the need for cooperation between specialists in fire safety not only with teachers and students, and parents. For this reason, the method analyzes the conversations, trips to the fire station, training of fire evacuation and the like. Describes features of application of the above-mentioned forms and methods of education in the process of mastering by the students basic fire safety requirements, but also proved their importance in the educational process.

1.31. Jevgenija Nevedomsjka. INFORMATION TECHNOLOGIES IN HIGHER EDUCATION (IN A PANDEMIC CONDITION)

The National Strategy for Education Development in Ukraine states that the priority of education development is the introduction of modern information and communication technologies that improve the educational process, accessibility and effectiveness of education, preparing the younger generation for life in the information society. The COVID-19 coronavirus pandemic, lockdown and quarantine restrictions of 2020-2021 showed the readiness of every higher

education institution in Ukraine to respond to today's global challenges and provide quality educational services. It is information technology that has provided teaching and learning activities in a pandemic. The article reveals the peculiarities of the use of information technology during the training of students of Borys Hrinchenko Kyiv University and the willingness of teachers to work remotely.

1.32. Olha Novyk. FEATURES OF TEACHING ANCIENT UKRAINIAN LITERATURE IN HIGHER EDUCATION

The article discusses the features of teaching Ukrainian literature of the X-XVIII centuries. Approaches to the formation of programs are separated, the publication of the material. The interdisciplinary nature of the content of texts studied in the course of ancient literature leads to the involvement of background knowledge of history, theory of literature and other disciplines. The use of modern scientific research on the history of ancient literature is a necessary condition for mastering the course, so the teacher must constantly rely on the modern scientific literature base. Interpretation of texts is combined with the history of life and the study of literary monuments. Modern technical base is an additional prerequisite for successful teaching and learning.

1.33. Sergii Petrenko, Lyudmyla Petrenko. INFORMATION-EDUCATIONAL ENVIRONMENT AS A MEANS OF LEARNING

The article analyzes the category of information-educational environment proposed in the works of Ukrainian and foreign scientists, on the basis of which the author's definition of the concept is proposed. Based on the definition, the characteristic features (multicomponent, integrity, adaptability, openness) and functions (professionally oriented, informative, communicative-coordinating, diagnostic, developmental) of the information-educational environment are singled out, the constituent components of the information-educational environment are analyzed. The possibilities of information-educational environment of Sumy State Pedagogical University named after A.S. Makarenko and its use in the educational process are considered. The structure and content of electronic cabinets of teachers and students are presented. The work in the environment of distance learning is characterized.

1.34. Tetiana Sapielnikova, Hanna Kazarova. INFLUENCE OF EXAM STRESS ON STUDENTS EDUCATIONAL MOTIVATION

The article analyses the problem of the impact of examination stress on student motivation. The exam stress is determined to be a kind of stress states that students face during their study. The structure of student's educational motivation, components of motivation are examined. Factors of occurrence examination stress, its components are considered. The construction of examination stress and the impact of exam stress on the educational student's activity is considered. The indicators of the research of the influence of examination stress on student's motivation are provided. Three types of motivation are browsed: motivation for knowledge acquisition, motivation for obtaining the diploma and motivation for mastering the profession. Presented conclusions of the empirical research on the relationship of examination stress and the level of motivation according to these three types of motivation.

1.35. Oksana Sviderska. INTERACTIVE TECHNOLOGIES AS THE MEANS OF FUTURE TEACHERS OF HISTORY PROFESSIONAL COMPETENCES DEVELOPMENT

The concept of professional competence in future teacher's education is defined. It is emphasized that the professional and pedagogical competence of the teacher is understood as a complex multilevel structure which is complemented by the superstructure of psychological features of the teacher that are formed out the integration of experience, theoretical knowledge and practical skills into the system of personal qualities.

It is underlined that the pledge of competence education of the future teachers of history is using interactive technologies of education in the system of professional study. The process of using interactive technologies in education is one of the means of readiness to interactive activity formation.

The ways of using interactive technologies in the system of future teachers of history education are revealed. The main criteria of future teacher of history readiness to using interactive education and necessary skills are defined.

The main perspectives of future research of the problem are analyzed: the formation of the concept of providing the education of future teacher of history with interactive technologies in professional activity. It means not only change of educational approaches, but mastery and practice of using interactive technologies in higher educational establishments. It is the program of innovative forms of educational technologies introduction.

1.36. Nataliia Svitlychna, Anastasiia Ponomarenko, Denys Petrenko, Ivan Pozhidaev. PROFESSIONAL MOTIVATION AND CAREER ORIENTATIONS OF EMPLOYEES STATE SERVICE OF SUPERVISED SITUATIONS

The article deals with the peculiarities of professional motivation and career orientations of employees state service of supervised situations. The relevance of this problem is due to the decisive influence of motivation on the success of extreme activity, psychological and functional states of the savior, the desire for professional self-realization, etc. Professional motivation acts as an internal driving factor for the development of personality professionalism, since only on the basis of its high-level formation is possible productive professional active.

1.37. Alexander Sklyarenko. THE STATE OF INTERNATIONAL COMPETITION IN THE FIELD OF PROSPECTIVE AND INNOVATIVE TECHNOLOGIES AND THEIR INFLUENCE ON SOCIETY DEVELOPMENT

The paper provides a brief analysis of the state of competition in the field of new technologies (nanotechnology and nanoindustry) of the world's leading countries. The importance of innovative technologies for the successful development of society has been demonstrated. The first successful domestic steps in the field of nanoactivity were analyzed.

1.38. Viktor Strelbitskii, Lubov Bovnegra. ACTUALITY AND PROBLEMS OF DISTANCE LEARNING IN HIGHER EDUCATIONAL INSTITUTIONS

The article analyzes the use of modern technologies, namely distance learning in a higher educational institution. The main advantages and disadvantages of distance education in modern conditions are considered. Despite the fact that distance learning is a new, specific form of education, however, this form of education is one of the most popular and convenient ways to get an education. The paper analyzes the most significant advantages and disadvantages of this process. The effectiveness of distance learning depends on the quality of materials prepared by the teacher, self-control, self-organization and the ability to use information and modern technologies by students.

1.39. Irina Sundukova. MODERN TECHNOLOGIES OF HEALTH CARE IN THE INITIAL PROCESS OF STUDENTS

The article highlights the directions for the recovery of student youth, which according to many experts is the modernization of the system of physical education based on the introduction of personality-oriented content of physical culture and sports activities, in accordance with the style and lifestyle of students. Health-preserving technologies in the educational process are defined, which is defined as the assimilation of physical culture values by students, mastery of special knowledge and vital motor qualities, the result of which is their ability to independently "manage" their health, conduct diagnostic, preventive and, if necessary and rehabilitation and corrective measures.

1.40. Iryna Tkachenko. STRUCTURE AND CONTENT OF HIGHER CHOREOGRAPHIC EDUCATION IN THE EUROPEAN UNION (EXPERIENCE OF THE REPUBLIC OF POLAND AND THE FEDERAL REPUBLIC OF GERMANY)

The article highlights the structure and content of higher choreographic education in Poland and Germany. Based on the terminological analysis and interpretation of scientific thought, the content of basic concepts is revealed and higher choreographic education in Poland and Germany is characterized as a branch of art education, which is implemented in the system of higher education institutions (higher schools of dance, higher art schools, academies, professional studios, universities of arts and sports, classical universities) and within which professional training of future performers, teachers-choreographers, balletmasters, stage producers, cultural workers is carried out. The results of comparative and structural analysis have shown that the structure of higher choreographic education in Poland includes: one university, two academies, four higher schools, four professional studios. Instead, two higher schools of dance, six higher art schools, two universities of arts and one sports university, two classical universities make up the structure of higher choreographic education in Germany. It is found out that content of higher choreographic education of the countries of the European Union, in particular Poland and Germany, includes bachelor's and master's programs in the newest specialties that meet modern requirements.

1.41. Lesia Uhryn. IMPLEMENTATION OF DUAL EDUCATION ELEMENTS IN THE EDUCATIONAL PROCESS OF HIGHER EDUCATION

The quality education is one of the most important part in humans life. But often both students and employers complain about many theoretical disciplines that are studied in universities and never applied in practice. Many students work in companies during studying. But this process is two unrelated parallel realities, because combine study with work is very difficult. It is also difficult to strike a balance between theory and practice. This is especially true in the education sphere. The solution to this problem can be dual education, which allows you to combine theory and practice, alternate listening to lectures at the university and gain practical skills in a company that cooperates with the institution. Such innovations to improve the quality of education contribute to the release of highly qualified professionals who are adapted to market needs. The research is devoted to the analysis of the dual educational process, in particular the training of specialists for the IT industry.

Part 2. INNOVATIVE AND INFORMATION TECHNOLOGIES IN EDUCATION: APPLIED ASPECTS

2.1. Tetiana Dymytriiieva. INTRODUCTION OF INNOVATIVE TECHNOLOGIES INTO THE WORK OF THE STATE MIGRATION SERVICE OF UKRAINE

The article explores innovative activities in the field of public administration in the context of the development of electronic format of interaction between government agencies and citizens, foreigners. The transition to innovative technologies by the state structure is highlighted. The main directions of management of innovative processes in the field of public administration are singled out. The normative-legal acts regulating the implementation of managerial innovations and the work of civil servants in the process of reforms with digitalization are analyzed separately.

Additionally, the main functions of innovations in public administration in the implementation of modernization processes are analyzed. The main innovations aimed at professionalization of bureaucracy and their reorientation to the needs of society and citizens are highlighted. Emphasis is placed on the introduction of information and communication technologies in the field of migration, to improve the social integration of foreigners in Ukraine.

2.2. Liliia Hrynash, Khrystyna Gorbova. MAIN ASPECTS OF INVESTMENT AND INNOVATIVE DEVELOPMENT OF OIL REFINING ENTERPRISES AND WAYS TO INCREASE THEIR ECONOMIC EFFICIENCY

The development of market relations in Ukraine encourages the revision of many basic economic concepts, provisions and categories that are considered almost "obvious" to a traditional market economy. This is due to two reasons: first, market relations in most developed countries have evolved over a long period of time, which allowed to organically choose the model most suitable for a particular country - population mentality, traditions, historically formed activities, etc.; secondly, the theoretical provisions of a market economy are based mainly on qualitative research methods, which usually determine the most likely trends in a particular economic phenomenon. All this makes it possible to gradually regulate and adjust the course of development of most economic processes. In Ukraine, the task of improving market relations must be set differently. This is due to the fact that it is necessary in a short time to form in the state developed market relations that would best meet the conditions of production, social and cultural development of the country. Implementing such plans quickly is a difficult task.

2.3. Elshan İsmayilov. DIRECTION OF FORMATION OF AGROPARKS IN AZERBAIJAN

Recently, a number of measures have been taken to create "Agroparks" in the regions of the country to ensure the development of the agricultural sector in the country. These measures are based on the Presidential Decree of April 16, 2014 "On the Establishment of Agro parks in the Republic of Azerbaijan" and the Decree of the President of the Azerbaijan Republic "On measures to improve management and accelerate institutional reforms in the agricultural sector". As a result of the establishment of agro parks in our country, it is clearly seen from our research that there is a great potential both to contribute to import substitution and to increase exports.

2.4. Dilruba Pashayeva. DEVELOPMENT OF DIGITALIZATION OF ACCOUNTING OPERATIONS IN THE FIELD OF COMMUNICATIONS

The results of research comparing different technological transitions show that there is an exponential increase in the speed and development of technological changes. Digitalization is the use of digital technologies to change a business model and provide opportunities that generate new revenue and value. Digitalization is a fast-paced process.

Digitization has a significant impact on the content, form and origin of accounting information, which significantly affects the activities of the enterprise. Digitization of accounting helps to increase the efficiency, consistency and quality of the process. Integrates traditional records or documents into digital form by eliminating the shortening of the communication chain, developing and facilitating better information exchange.

2.5. Denys Vasylychev, Sergiy Tsviliy, Olena Zhilko. SOCIO-ECONOMIC ASPECTS OF STAFF'S INNOVATIVE DEVELOPMENT AND TRAINING IN SERVICE ENTERPRISES: WORLD AND DOMESTIC EXPERIENCE

A comparative analysis of trends in staff's training and development of service enterprises in Ukraine and the world is presented, which showed the directions of innovative development of this process for business; the analysis of the existing types of an estimation of efficiency results of staff's training, their differences and ways of application is carried out; identified factors that complicate the assessment; criteria for assessment the effectiveness of training results of service employees are considered; the model of an estimation of efficiency results for staff's training and development in sphere of services is offered.

2.6. Vasyl Gorbachuk, Gennady Golotsukov, Dmytro Nikolenko, Lyudmyla Batih. DEVELOPMENT OF INFORMATION TECHNOLOGIES FOR BUDGET PLANNING

Comparative analysis of the efficiency for Medium-Term Budget Frameworks (MTBFs) in different countries of the European Union is a difficult task, because MTBFs in those countries are characterized by different concepts and indicators. Moreover, the comparative analysis available is often carried out on the basis of questionnaires, the answers to which are based on the description of the legal framework rather than the basis of real observations. Therefore, evaluating the efficiency for different MTBFs will involve serious efforts to identify and harmonize the main concepts of the MTBFs not only in terms of arrangements, but also in terms of plans and objectives for which these arrangements are regarded useful. In other words, consistent international or multilevel budget planning needs due big data processing, corresponding technologies and facilities.

2.7. Yuliya Zintso, Iryna Anhelko. INNOVATIVE DIRECTIONS OF INCREASING EFFICIENCY OF MARKETING ACTIVITIES IN UKRAINIAN FARMS

The innovative development of farms in Ukraine will help address issues of food security, supply of organic products to maintain a healthy diet, infrastructure development and other working conditions for young people in rural areas. Such problems should be addressed comprehensively, not selectively. An important factor of success is that farms must cooperate, form associations, and the state must contribute to the urbanization and preservation of the rural population, provide the necessary state aid. Therefore, it is advisable to analyse in detail the issues that directly or indirectly affect the activities of farms in the country. We will focus on the main innovative areas to increase the efficiency of marketing activities of farms.

2.8. Lev Kl'oba, Nazar Dobosh, Olena Pozniakova. FINTECH – SYNTHESIS OF DIGITAL TECHNOLOGIES AND INNOVATIONS IN THE BANKING SECTOR

The consequences of financial innovative technologies introduction are reflected in the field of creation and realization of bank goods, and their influence is analysed both on the banking system of Ukraine in general and on concrete bank establishment in particular also in the article. Authors determined the aim of deepening of collaboration of banks with fintech-startups. The basic types of digital financial technologies that is widespread both in the world and in economic system of Ukraine are described and characterized. New bank goods and services with new qualities will become as the result of collaboration of banks and fintech-startups in the authors' opinion. It will result in transformation of scientific researches and developments, other scientifically-technological achievements in new or improved bank goods and services, in the renewed or improved bank technological process that is used in practical activity, or new going, near realization of goods and services, their adaptation to the actual requirements of clients too.

2.9. Hanna Komarnytska, Mariia Ustymenko, Dmytro Muzhylivskyi. ATTRACTING INVESTMENT AND INNOVATION ON A VOLUNTARY BASIS PUBLIC-PRIVATE PARTNERSHIP (ON THE EXAMPLE OF LVIV REGION)

In market conditions, even despite the high level of investment and innovation potential of the territorial entity, most entities do not have enough capital to implement socially significant projects. Therefore, they are forced to look for alternative ways to attract the necessary financial capital and use other mechanisms to solve these problems, for example, through the use of public-private partnerships.

The results of the research allow us to assert the relevance of building a model of attracting investment and innovation based on public-private partnership, which will combine public and market vectors. It is based on the concept of state-partner attractiveness and state-partner potential of territorial formation.

Lviv region has a significant potential to increase investment attractiveness due to its advantageous geographical location, significant human, industrial and scientific-educational resources. Among the priority tasks facing the region today is to attract additional investments, which will contribute to the creation of new jobs and economic growth.

2.10. Tetiana Kuzmenko. STRATEGIC APPROACHES TO THE FORMATION OF ELEMENTS OF INNOVATIVE POTENTIAL

The article considers theoretical and methodological tools for making innovative potential of the enterprise. Researched and grounded theoretical approaches to definition the essence of innovation potential of enterprises from different scientific perspectives, critically evaluated the nature, components and features of development of innovative potential in different spheres and sectors of activity. The researcher suggested the approach to determining the nature and components of innovative potential of an enterprise as a component of its innovative space in the aggregate organizational and managerial activities, strategic resources and innovative culture that under certain internal factors and external factors of the innovation climate can be directed for realization of innovative activity of the enterprise and meet the new needs of society. The author defines mechanism of management of the development process for innovative potential of the enterprise.

2.11. Tamara Makarenko, Volodymyr Filonenko, Vira Dubrovina. THE USE OF INNOVATIONS AND DIGITAL TECHNOLOGIES IN NEW APPROACHES TO HUMAN RESOURCE MANAGEMENT

The article analyses the researches of various scientists who have worked on the use of innovations and digital technologies in the human resource management system. The main factors and factors influencing the development of innovative technologies and their implementation in the practice of personnel management are given. A distinction is made between theoretical approaches to understanding the problem of innovation and innovative methods, which were presented by different groups of foreign and domestic scientists. These approaches analyse possible ways to measure the impact of innovation in human resource management and justify the need for a comprehensive theory that combines these approaches and provides tools for a more systematic and detailed analysis of different types of innovation in human resource management.

2.12. Yuri Pozdnyakov, Maria Lapishko, Pavlo Horyslavets. METHODOLOGICAL BASIS OF CORRECTIONS SIZE DETERMINING ON THE SPATIAL LOCATION CHARACTERISTICS AT REAL ESTATE OBJECTS VALUATION

The article behaves to the property economic measurements implementation using the Comparative Sales independent valuation approach. On example from the real commercial real estate evaluation practice the main methodological principles of valuation object spatial localization characteristics adjustment are considered. According to the described methodology, localization adjustment coefficient is determined by calculation method on the basis of market data cross-correlation regressive analysis. A basic hypothesis is a statement that the relation of valuation object single unit value index to the same class property objects is determined by its model values relation in the mathematical model of statistical relationship between object single unit value index and its three settlements characteristics: population number; distance to the regional center; area (territory within the settlement boundaries).

The research is grounded on mathematical simulation and mathematical statistic quantitative methods. The methodology of adjustment coefficients on investigated price-forming factors definition is based on nonlinear cross-correlation regressive analysis of market data research. This mathematical model is experimentally set by local market data research for the exactly similar real estate objects on the valuation date. It is set that there is observed different statistical relationship level between some of objects price-forming factors and its single square value indexes. The closest statistical relationship exists between settlements population number and single indicator of similar property situated in other compared settlements.

It is shown that taking into account some recommended braking coefficients for regressive curve, are published in professional literature, is inadvisable, because it increases the result error is got. Certainly the regression curve characteristics of object spatial localization price-forming

factors must be taken into account at adjustment coefficient determination procedure. It is well-proven that methodically correct result of object localization adjustment procedure implementation can be provided only in the case of local market situation research data applying, with determination of the nonlinear regression function characteristics for statistical dependence of single square value index from the object settlements population number.

Research is described gives an opportunity to decrease evaluation result uncertainty through the use of new offered approach to mathematical model characteristics definition. The main result of researches described is a possibility to obtain appraising/valuation results with the higher reliability and better accuracy. Researches results are the objective confirmation of the fact, that nowadays methodical base of independent valuation is not able to provide the higher level of this class evaluation objects accuracy results. It does not depend only from an individual appraiser or concrete evaluation company, but, firstly, from unreliable arbitrarily chosen by appraisers adjustments – that usually are "expertly" determined, based on appraiser's own ideas about the dependence of real estate prices on the settlements characteristics. This elementary way of taking these characteristics into account may be a source of additional errors and result uncertainty level increasing.

Future investigations in this direction may deals with the consideration and analysis of other types nonlinear functions application possibilities, that approximate the regression curve of statistical interdependence between the object single value index and its spatial localization characteristics. The quantitative indexes of absolute and relative methodological errors also may be determined and analyzed in detail in future researches. The importance of those researches for the further development of the independent valuation metrological-information paradigm are confirmed. Practical recommendations for the evaluation results accuracy and reliability increasing are formulated.

2.13. Olena Kharchyshyna, Nataliia Trushkina. MANAGEMENT OF ORGANIZATIONAL CHANGE: THE EVOLUTIONARY DEVELOPMENT OF THEORIES, THE ESSENCE OF MODELS AND APPROACHES

The article improves the methodological support of organizational change management in enterprises as a result of substantiating the need to use an integrated approach in this process by combining process, behavioral, systemic, adaptive, situational, humanistic, psychodynamic and competence approaches. This makes it possible to determine the principles of improving the organizational mechanism for managing the transformation of organizational culture of enterprises as a set of principles, tools, functions, methods, tools, resources, and factors of influence.

2.14. Leonid Tsubov, Oresta Shcherban, Taras Shcherban. METHODS AND CRITERIA FOR ASSESSING THE ECONOMIC SECURITY OF TOURISM ENTERPRISES

This article examines the scientific and methodological tools for ensuring the mechanism of economic security management of a tourist enterprise as a set of methods, tools, specific measures aimed at ensuring a high level of economic security of a tourist enterprise. Peculiarities of tourist enterprise management and economic security are analyzed. The main criteria for assessing the reliability and efficiency of economic security of a tourist enterprise are determined. The main tasks of ensuring the economic security of the tourist enterprise are outlined. Possible practical methods of risk management organization for implementation of the accepted decisions are offered. It is proved that the complexity of economic security management of a tourist enterprise, the provision of a sufficiently effective system of detection and elimination of threats are provided by the creation of management of the economic security system of a tourist enterprise, all its functional components.

Part 3. INNOVATIVE AND INFORMATION TECHNOLOGIES IN ECONOMICS AND MANAGEMENT

3.1. Olena Havrysh, Svitlana Omelchenko. INNOVATIVE TECHNOLOGIES OF SOCIAL WORK IN THE CONDITIONS OF GLOBALIZATION

In the article the new technologies of social work are carried out. Authors point out that modern social workers have to use innovative approaches in their everyday professional life. The fast spreading of globalization and a long period of a pandemic play an important role in appearing and providing innovative products in social work. Authors describe some modern technologies of social educators: electronic counseling, online self-help groups, social networks and media, virtual reality. They suggest also useful mobile apps in this article.

3.2. Valentyna Loboichenko, Nataliia Leonova, Valeriy Strelets. INNOVATIVE TECHNOLOGIES IN THE PREVENTION OF EMERGENCIES DUE TO THE INGRESS OF PROTECTIVE MASKS FOR MEDICAL AND NON-MEDICAL PURPOSE INTO THE ENVIRONMENT

The paper analyzes the state of waste management related to the accumulation in the environment due to the COVID-19 pandemic, a significant number of personal protective equipment, including protective masks for medical and non-medical purposes. It is stated that in addition to mechanical pollution, there is a danger of compounds, which are part of the used protective masks, going to the environment. An innovative approach for preventing the emergencies due to the entry of protective masks for medical and non-medical purposes to the environment is based on an experimental study of the state of individual objects of the environment. This approach, characterized by low cost, fastness, is “environmentally friendly”, and multi-parameter ensures its objectivity and reliability.

3.3. Inna Melkonova, Oleksandr Shevchenko, Hryhorii Melkonov. DEGAUSSING DEVICE FOR FLAW DETECTION

The article shows the need for high-quality demagnetization of the axle of the wheelset, which is one of the most critical parts of the rolling stock. The method of comparative analysis was used to assess the effectiveness of methods for demagnetizing the axle of a wheelset, which ensures the durability and operational reliability of the rolling stock. Based on the results of the analysis, three main methods of demagnetizing ferromagnetic parts and products are identified: a reverse pulse, a free oscillatory process and a pulse method. The method of demagnetization has been selected and substantiated; the basic requirements for the device for demagnetizing the axles of wheelsets have been determined and analyzed. The proposed implementation of the device, which guarantees the required quality of demagnetization of the axle of a wheelset based on its magnetic state. The magnetization of the axis material is proposed to be estimated indirectly from the results of measuring the tangential component of the magnetic field strength on the axis surface with a fluxgate.

3.4. Olga Pyurko, Natalia Karakovska, Vladyslav Pyurko, Svetlana Kazakova. MEDICAL AND BIOLOGICAL CHARACTERISTICS OF THE GENUS PLANTS ASTRAGALUS L. AS A HEALTH-CONTAINING COMPONENT IN THE DEVELOPMENT CONDITIONS OF MODERN INCLUSIVE EDUCATION

The article reveals the medical and biological characteristics of the genus plants Astragalus L. as a health-preserving component in the development of a modern inclusive environment. It is proved that the adaptation of xerophytic plants of the genus Astragalus L. to arid habitats

is characterized by the presence of unicellular trichomes, which reduces transpiration, increases the proportion of storage tissue in the leaf and conductive and mechanical elements in the stem, so the plant is characterized by quality phytotherapeutic properties effect. The versatility of the pharmacological properties of the genus plants *Astragalus* L. is due to the different chemical composition of the raw material, which determines the multi-vector application of this plant.

3.5. Halyna Tokar, Alla Rubanka, Olena Kolosnichenko, Nataliia Ostapenko. DEVELOPMENT OF SPECIFIC REQUIREMENTS FOR UNLOADING VEST WITH A SET OF BAGS AND MATERIALS FOR THEIR MANUFACTURE

Based on the analysis of the features of professional and service activities of the pilot, it is established that the influence of dangerous and harmful factors is different in frequency, intensity. The list differs depending on each of the stages of professional activity. On the basis of the analysis of conditions of performance of the set tasks the nomenclature of dangerous and harmful factors taking into account features of each of stages of professional and service activity of performance of official duties is offered. The topography of their influence on the specified sites of the unloading vest is offered and graphically presented. Requirements for the unloading vest with a set of bags and materials for their manufacture for the purpose of design of a modern product, which will help preserve the functional state of the pilot during the tasks.

3.6. Olena Volkova, Nataliya Rodina. COPING-BEHAVIOR IN EXTREME CONDITIONS AND PROVISION OF PSYCHOLOGICAL ASSISTANCE TO SEAFARERS

The relevance of the study is that the profession of seafarer is becoming increasingly popular in Odessa region. The category of people who have chosen this profession works in extreme conditions with a constant threat to their health and life. Being in isolation from the normal environment, they suffer from various limitations, which can provoke the development and manifestation of mental disorders. When considering candidates, as well as before each flight, it is advisable to diagnose the candidates in order to avoid negative consequences. Sailors are constantly under the influence of stress factors, such as: risk of collision with pirates, insufficient communication with relatives, conditions of isolated space of the ship, special conditions of loading on human analyzers, including noise level, natural and artificial lighting, electromagnetic radiation, vibration, industrial pollution. etc. It is also possible to mention that stress is the threat of an accident, trauma during a storm, typhoon, change of time zones, relative social isolation within the crew, which has its own characteristics, depending on nationality and traditional teams, information voice, frustration of low physical needs, hypodynamiya, special living conditions and other. Most of the above factors negatively affect the mental state of a person at sea.

As a result of prolonged exposure to stressors, to which the body has adapted, a person gradually depletes the reserves of adaptive energy, and this leads to mental strain, which is the trigger for the development of various mental and somatic diseases. Such scientists as K. Jaspers, P. Binet, E. Bleuler, D. Elkin, S. Korsakov and others dealt with issues related to the study of mental structure. The structure of the psyche, as described in the work "I and It" by Z. Freud, was the basis. Modern research in this direction was conducted by such scientists as N. Rodina, M. Vygdorchyk and others. Testing as a diagnostic method allows you to remove disorders in the mental process, and psychoanalytic field allows you to investigate the deep lesions of the psyche of sailors in psychosis, neurosis, perversion, borderline state. To prevent these disorders, it is important to get quality sleep every day, exercise properly, get a good routine, have a stable family, and more. The right attitude to your life environment will allow you to avoid stressful situations, depression and fully enjoy life. It is important to protect yourself from the influence of psychological manipulators, which have appeared in large numbers in the last few years. The use of both independent types of psychological assistance and their complex combination is substantiated. All this will contribute to the neutralization of traumatic material, complete recycling, further elimination of the long-term effects of stressors in sailors, their adaptation to public life and the restoration of mental health.

3.7. Hanna Balaniuk, Alexandr Orgiyan. EXPERIMENTAL STUDIES OF DYNAMIC INTERACTIONS IN MULTI-CUT FINE BORING

Trends in the development of modern mechanical engineering should provide a constant increase in quality and reduce the cost of products. Fine boring is one of the most important high-precision methods of processing holes. The achievable accuracy of this operation is limited by the vibrations that occur during the cutting process. The problem of vibration control is still incompletely solved and very relevant for high-precision finishing operations of boring holes, although a large amount of research has been done to reduce the level of oscillations. Concentration and combination of operations are effective resources in improving the accuracy and productivity of fine boring. One of the possibilities of realization of this resource is the introduction into practice of fine boring of multi-stage cantilever bars for processing of stepped surfaces of rotation.

3.8. Volodymyr Bulda, Ivan Dzeman, Mykhailo Dzeman. SUCCESSION OF KYIV INTERNAL MEDICINE SCHOOL TRADITIONS

The article tracked breathtaking story of establishment and traditions heritage of Kyiv internal medicine school.

3.9. Lidiia Butska, Inna Bulakh, Iryna Borysiuk. CURRENT TRENDS OF INCLUSIVE PRACTICES IN PERSONS SUFFERING WITH PAIN SYNDROMES AND UNDER THE ACTION OF HIGH STRESS LOADS

The article, based on modern psychophysical views on the causes, mechanisms of development, types of pain syndromes, the relationship of physiological and mental components in their occurrence and development, describes the clinic and basic methods of treatment and results of psychophysical research in pain syndromes, indicates the feasibility of non-drug methods of correction of pain syndromes. Among non-drug methods, the authors recommend the use of the following: reflexology, physiotherapy, biological feedback, a number of psycho-correctional techniques, including self-training, meditative practices.

In conclusion, the authors emphasize the need for a multidisciplinary, multilevel approach in the prevention, correction and rehabilitation of pain syndromes.

3.10. Lidiia Butska, Veronika Shkrabiuk, Myroslava Kulesha-Liubinets. MODERN CONCEPTS OF MECHANISMS OF OCCURRENCE AND DEVELOPMENT OF PAIN SYNDROMES OF NON-VISCERAL ORIGIN IN PERSONS WORKING IN CONDITIONS OF HIGH PSYCHOPHYSICAL LOADS. LITERATURE REVIEW

The section reveals the content of the basic concepts of development of non-visceral syndromes in persons working in conditions of high psychophysical loads. The analysis of modern scientific views on psychophysical causes, mechanisms of development, types of pain syndromes, connection of physiological and mental component in their origin and development is given. The types of pain that are distinguished at the present stage, their characteristic features, clinical symptoms are described. Separately, studies have been analyzed that clearly demonstrate the relationship between emotional and somatic components, as well as the mechanisms of pain relief by using a multidisciplinary, multilevel approach in the prevention, correction and rehabilitation of people suffering from pain.

3.11. Tatiana Girina, Nadiya Balamutina, Oksana Onishkevich. THE INFLUENCE OF NUTRITION AND EXERCISE ON HUMAN HEALTH

The article presents materials on the direct relationship between nutrition and exercise – as the main components of health and well-being, without which it is difficult to achieve maximum efficiency. The balance in the body that leads to health begins with the food we eat. Sufficient physical activity is one of the rules of a healthy lifestyle and a condition for human growth and development. There are low, moderate and intense motor activity. To maintain good physical shape,

you should choose exercises and sports that promote the development of physical qualities. Physical activity has a positive effect on physical, psychological and social well-being. A person feels healthy only at a certain level of motor activity. "We do not live to eat, but eat to live."

3.12. Liubov Drahola. USE OF METAPHOR IN PSYCHOTHERAPEUTIC AND PSYCHOCORRECTIONAL PRACTICE

In the context of this scientific work, it is important to outline the meaning of the concepts "psychotherapy" and "psychocorrection" and to determine the similarities and differences between them. This is due to the widespread use of metaphor in various psychotherapeutic and psychocorrectional areas.

3.13. Nadiya Dubrovina, Tetiana Dubovyk, Volodymyr Babienko, Oksana Bespalova. RAPID DEVELOPMENT OF TECHNOLOGICAL INNOVATIONS IN HEALTH CARE IN THE DEVELOPED WORLD

In recent years, there has been a rapid development of technological and information innovations in the field of health care. The article provides an overview of the latest trends in healthcare innovation in the developed world, which have been driven by new challenges, including the Covid-19 pandemic. Developed countries of the world have demonstrated wide opportunities for the use of artificial intelligence and telemedicine systems, mobile devices and self-diagnostic systems, the spread of communication with colleagues, health professionals and patients, which contributed to the quality of medical services, their efficiency, accuracy, transparency.

3.14. Maria Karpiak, Nazariy Popadynets, Hanna Oleksyuk, Nataliia Samotii. OVERCOMING THE SIGNS OF SOCIAL EXCLUSION IN UKRAINE IN CONDITIONS OF MAINTAINING THE BALANCED DEVELOPMENT OF A STATE AND ITS REGIONS

Current processes of social exclusion emergence in Ukraine and its regions are examined. The paper proves that the elimination of social exclusion signs is possible only at national and regional scales. The author substantiates the dependence between the emergence of social exclusion and the following parameters: GDP, consumer price index that shows the purchasing power of the population, unemployment, inflation and real wage indices, accessibility of the population to social services, etc.

3.15. Oleksandr Kirieiev, Viktorija Makarenko, Maryna Chyrkina. DEVELOPMENT OF NEW MEANS OF FIRE EXTINGUISHING OF COMBUSTIBLE LIQUIDS WITH ENHANCED ENVIRONMENTAL CHARACTERISTICS

Based on the analysis of existing extinguishing agents for flammable liquids, a number of their significant shortcomings have been identified. One of the most important disadvantages of the most common water-foam extinguishing agents for flammable liquids is their unsatisfactory environmental characteristics. To eliminate these shortcomings, it is proposed to introduce a new means of extinguishing fires with flammable liquids based on light porous materials and gelling systems. The results of researches, their fire-fighting characteristics and an estimation of ecological parameters are resulted. Ways to further enhance the environmental safety of foam glass-based fire extinguishers by replacing the gel layer with light granular porous materials are considered.

3.16. Inna Kovalchuk. SOCIAL INCLUSION OF THE ELDERLY IN THE CONDITIONS OF COVID 19

The article reveals the main directions, forms and methods of inclusion of the elderly in the conditions of distribution of Covid 19. Among them, special attention should be paid to home social services, services provided by social services and charitable foundations, the work of self-help groups, the organization of leisure for the elderly.

Methodologically competent conversations, trainings, discussions promote communication with elderly people. Various forms of discussion of the problems of the elderly contribute to their inclusion in social life.

3.17. Mariia Leonenko. RESEARCH OF EXPERIENCE OF INTRODUCTION OF INNOVATIVE TECHNOLOGIES OF 3D-PRINTING IN CONSTRUCTION

The paper investigates the spread of information and innovative technologies in the construction industry, namely: technologies of additive construction of buildings and structures using a construction 3D-printer. The author gives the history of the origin and development of 3D-printing, tells about the technology and features of 3D-machines in construction and their varieties. The article also reveals the advantages and disadvantages of additive technologies, they are compared with "traditional" construction. In addition, this paper provides examples of objects from around the world that have already been or will be printed.

3.18. Tetiana Lesina, Brahmi Mehdi Djamel, Huang Ruiping. ANIMATION AS A TECHNOLOGY OF SOCIO-CULTURAL AND SOCIO-PEDAGOGICAL ACTIVITY

The article deals with the animation as a social phenomenon and technology of socio-cultural activity. The functions, varieties, directions, levels of animation and features of animation activity with different categories of the population are revealed. The foreign experience of introducing animation in the socio-cultural and socio-educational spheres is analyzed. The methodological principles of animation as an innovative direction of socio-pedagogical activity are highlighted. The content of animation activity of social pedagogues and workers is detailed. The specifics of training animators to work with young people and the uniqueness of the animation project are highlighted. The article presents the ways and means of development and implementation of an animation project in the process of socio-cultural work with different population categories, in particular, details the content of this work with young people.

3.19. Olena Tarakhno, Andriy Sharshanov, Olga Skorodumova. COMPUTER SIMULATION OF THE PROTECTIVE EFFECT OF ETHYL SILICATE GEL COATING ON TEXTILE MATERIALS IN CONDITIONS OF CONSTANT OR DYNAMIC HEAT

A mathematical model of fire-retardant action of organosilicon coating on cellulose-containing fiber of fabric threads is developed, which provides predictive estimates of fire safety parameters of textile materials, based on the level of thermal impact on the surface of the protected material.

3.20. Yuriy Yatchenko, Nina Rashkevich, Dmytro Krushelnytskyi. SLOPES STABILITY RESEARCH OF SANITARY SOLID WASTE LANDFILL

The authors showed the results of studies of the influence of humidity on the stability of landfill slopes in scientific work. The studies were performed on a specially designed laboratory. The main fundamentally important factors influencing the mechanical properties of the soil mass are reproduced in the laboratory installation. The authors established the interaction of physical properties of landfill soils and their impact on mechanical properties based on the results of the analysis. The strength of the geosynthetic anti-filtration surface screen is violated due to the movement of layers of landfill soils. The protective surface screen is an integral part of the sanitary landfill for solid waste. The increase in the level of technogenic and ecological danger of the solid waste landfill is a consequence of the violation of the screen strength. The authors have developed proposals to ensure the strength of the final coating of the landfill for solid waste based on the results of research.

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