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**POSSIBILITIES OF INFORMATION TECHNOLOGIES
IN TRAINING OF SPECIALISTS OF PHYSICAL CULTURE AND SPORT
FOR THE USE OF INNOVATIVE TYPES OF MOTOR ACTIVITY**

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Today, the modernization of professional training of specialists in physical culture and sports in higher education institutions in the direction of mastering by students a set of innovative knowledge, skills and abilities in the field of physical culture and sports is becoming important. This involves the organization of training as an active process of acquiring knowledge. Only with a sufficient level of technological training, information competence, digital literacy, a young specialist in physical culture and sports is able to act adequately in the world, navigate in problematic

situations, find rational ways to solve professional problems and be competitive in the labor market.

Key words: professional training, future specialists of physical culture and sports, information technologies, lecture-visualization, innovative activity.

Атаманюк Світлана, Семеніхіна Олена, Шишенко Інна, Можливості інформаційних технологій у підготовці фахівців фізичної культури і спорту для використання інноваційних видів рухової діяльності.

Сьогодні набуває актуальності модернізація професійної підготовки фахівців з фізичної культури та спорту у закладах вищої освіти в напрямі оволодіння студентами комплексом інноваційних знань, умінь і навичок у галузі фізичної культури і спорту. Це передбачає організацію навчання як активного процесу здобуття знань. Лише за наявності достатнього рівня технологічної підготовки, інформаційної компетентності, цифрової грамотності молодий фахівець із фізичної культури та спорту здатний гідно діяти у світі, орієнтуватися в проблемних ситуаціях, знаходити раціональні шляхи вирішення професійних проблем і бути конкурентоспроможним на ринку праці.

Ключові слова: професійна підготовка, майбутні спеціалісти фізичної культури та спорту, інформаційні технології, лекція-візуалізація, інноваційна діяльність.

Introduction. The dynamic development of technology, the recognition by the world community of the problem of maintaining physical and psychological health as the main indicator of socio-economic maturity of members of society, culture and success of the state determine a special attitude to the training of physical culture and sports. Also, the phenomenon

of digital health arose as a result of the digital revolution convergence with the health fields, health care and society. This phenomenon provides the rights and possibilities expansion of the members of society for better tracking, managing and improving their health and their families' health. Digital technologies in healthcare sphere also improve access to information resources, reduce costs, improve the quality of health care and make it more personalized and accurate. The latest trends in society require the development of education and training of future professionals in physical culture and sports on the basis of information technology, the creation and operation of a proper high-tech and high-quality information and educational environment.

Analysis of relevant research. R. Klopov, A. Konokh, N. Stepanchenko, L. Sushchenko, B. Shiyan and others studied the professional development of future specialists in physical culture and sports. Studies by scientists such as J. De Meyer, B. Soenens, N. Aelterman, I. De Bourdeaudhuij, L. Haerens; R. Garrett, A. Wrench; P. Hastie, D. de Ojeda, A. Luquin; R. Malinauskas; M. Maurer, R. Marcy, J. Pat; H. Larsson, G. Nyberg; M. Jagiełło, S. Iermakov, M. Nowiński, K. Hardman and others point to the importance of finding ways to modernize the process of training future specialists in physical culture and sports in accordance with current trends in physical culture and sports, the importance of studying the mechanism, technologies of such implementation in practice [1-8]. Experts point out the significant advantages of using IT in education, compared to traditional classes, including - expanding the ability to present information, increase student motivation through the novelty of working with computers, qualitative changes in student control, access to a wide range of information, etc. [4].

The purpose of the article is to determine the possibilities of information technologies in training of specialists of physical culture and sport for the use of innovative types of motor activity.

Results. The study of documents, regulations and analysis of scientific and methodological and special literature show that the priority of education is the introduction of modern IT, which improves the educational process and prepares the younger generation for life in the information society [2].

As practice shows, only having a sufficient level of technological training, information competence, digital literacy, a young specialist in physical culture and sports is able to act adequately in the world, navigate in problematic situations, find rational ways to solve professional problems and be competitive in the labor market. which leads to the increasing use of IT in the educational process of future professionals [6].

According to L. Makarenko [5], the effectiveness of informatization of educational space provides improvement of organizational conditions of the educational process, which occurs through the introduction of interactive teaching methods, visualization of educational information, its compression, collapse and deployment depending on the content and learning goals, differentiation and individualization of learning. choice of individual educational trajectory. Information technologies in the field of physical culture and sports and professional training of future specialists in physical culture and sports are used as a means of training and organizing intellectual leisure, for biomechanical analysis of athletes' movement techniques, creating models of training and competitive situations and as a means of automating competition and research. , for information and methodological support and management of the educational process, sports institutions and organizations, in the organization of monitoring the physical condition and health of those involved, as a means of automating

control processes, computer testing of physical, functional, mental and psychological states those who are engaged, and correction of results of educational and training activity.

On the other hand, the modernization of professional training of physical culture and sports specialists in higher educational institutions in the direction of mastering by students a complex of innovative knowledge, skills and abilities in the field of physical culture and sports, formation of professional interests, professional motives and value orientations readiness of future specialists of physical culture and sports for innovative professional activity, mobilize for creation of innovations, their development and use. It is necessary not only to make professional disciplines attractive to students, but also to achieve this on the basis of maximum use of IT, accessible learning content, while promoting the comprehensive professional growth of students. Innovative sports, which are one of the important areas of creating a quality educational space in the new environment, should play an important role in improving the effectiveness of education in the field of physical culture and sports in higher education.

Innovative activities in the field of physical culture and sports include: skateboarding, streetstyle, freestyle, parkour, workout, various dance and rhythmic exercises, the use of basic aerobic fitness programs, fitness programs aimed at developing muscle strength, extreme sports, recreational games and technology and tourism are defined as innovative technologies in the field of physical culture. We believe that such new types of activity in the professional activity of a specialist in physical culture and sports can not only increase the effectiveness of the training process, but also increase motivation for physical education, the desire to lead a healthy lifestyle, physically develop and improve.

During the experimental formation of the readiness of the future specialist of physical culture and sports for innovative professional activity,

it was expedient to combine traditional teaching methods and innovative technologies that involve the use of innovations not only in the educational process but also for professional growth and physical improvement; the latest forms of organization and conduct of educational classes are widely used with the growing role of interactive forms of organization of the educational process, the use of individualized educational trajectories for students; modern technologies and means of control are involved; complexes of innovative gymnastic exercises and corresponding methodical support are created [12-15]. The study of the technique of performing basic exercises in parkour showed that they are a combination of gymnastic, athletic, jumping and acrobatic exercises. By biomechanical analysis of parkour exercise techniques, it was found that their development requires the development of mainly speed-power and coordination abilities. Based on this, a set of exercises aimed at developing the special physical abilities of parkourists was developed, which were demonstrated to students during lectures with the help of IT.

Among the organizational forms of education that contribute to the formation of the readiness of the future specialist of physical culture and sports for innovative professional activities, along with the traditional forms of organization of educational activities of students, we single out lectures-visualizations. Lecture-visualization [1] provides the transformation of oral information into a visual form by technical means of learning. The lecturer widely uses such forms of visualization, which are carriers of meaningful information. This form of lecture involves transcoding textual information into graphic. The teacher in this case acts as a commentator.

This type of lecture is the result of a new use of the principle of clarity, the content of this principle changes under the influence of data from psychological and pedagogical science, forms and methods of active learning. Psychological and pedagogical research shows that clarity not

only contributes to a more successful perception and memorization of educational material, but also allows to activate mental activity, penetrate deeper into the essence of phenomena, shows their connection with creative innovation processes in human activity. Lecture-visualization teaches students to turn oral and written information into a visual form, which encourages innovative professional thinking by systematizing and highlighting the most important, essential elements of the content of education. Any form of visual information contains elements of problems. Therefore, the lecture-visualization helps to create a problem situation, the solution of which, in contrast to the problem lecture, which uses questions to students, is based on analysis, synthesis, generalization, collapse or deployment of information, ie with the inclusion of active mental activity. The teacher's task is to use such forms of clarity that would not only supplement verbal information, but were themselves carriers of information. Preparation of this lecture by the teacher is to change, reconstruct the educational information on the topic of the lecture in a visual form for presentation to students through technical means of teaching or manually (schemes, drawings, etc.). The reading of the lecture is reduced to a coherent, detailed commentary by the teacher of the prepared visual materials, fully reveals the topic of this lecture. The information presented in this way should provide a systematization of students' knowledge, which is important in cognitive and professional activities.

In the lecture-visualization a certain visual logic and rhythm of presentation of educational material is important. You can use a set of technical teaching aids, as well as color, graphics, a combination of verbal and visual information. Important dosages of material use, skill and style of communication of the teacher with students. This type of lecture is best used at the stage of introducing students to a new section, topic, discipline. The resulting problematic situation creates a psychological attitude to the

study of the material. For example, considering the topic, the teacher demonstrates a system of drawings and videos and comments on them (Fig. 1).

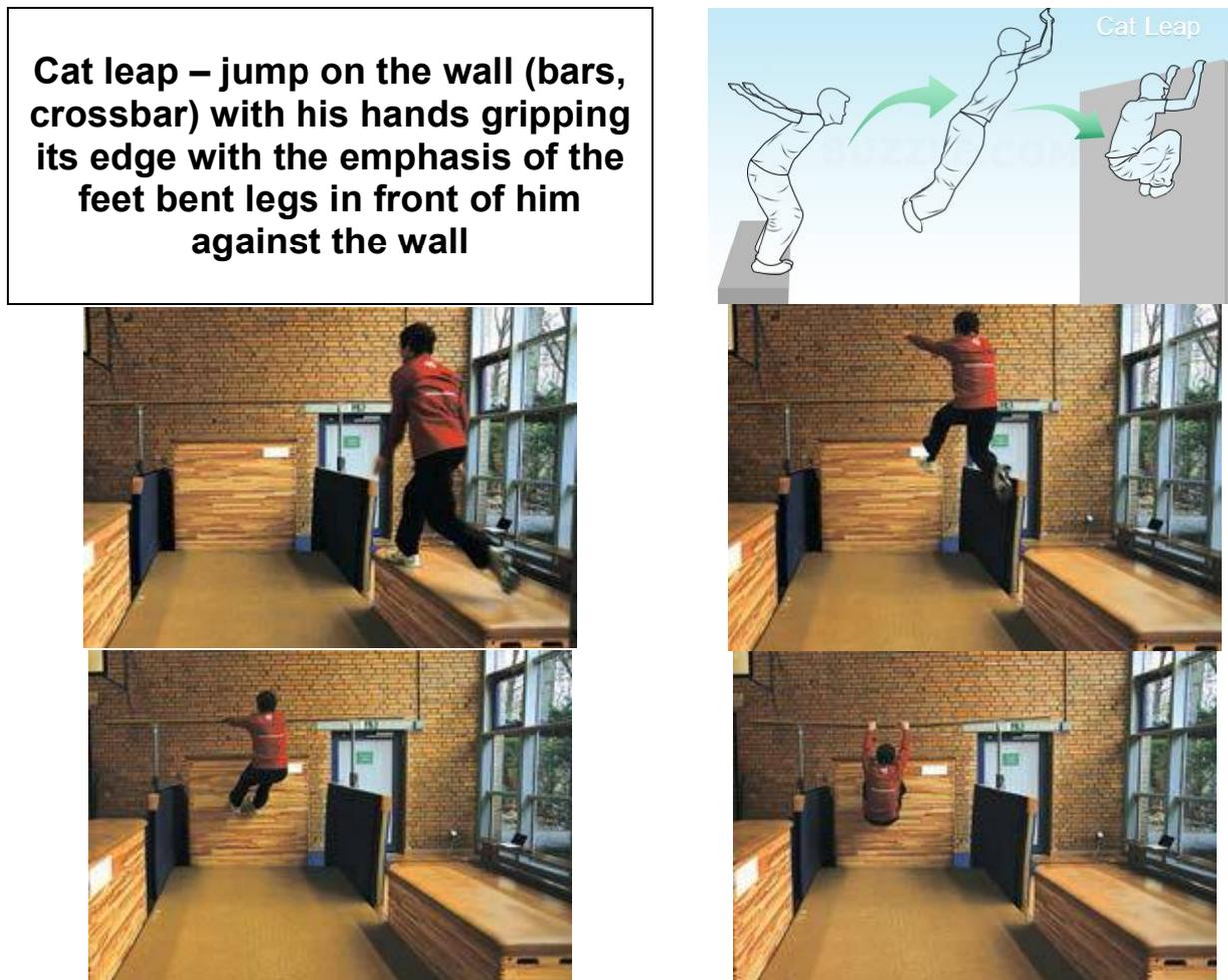


Fig. 1. The system of drawings and videos for the lecture-visualization

We agree with L. Denisova [3], O. Shapran [7] that due to the use of Internet resources that provide access to virtually unlimited amount of information and its analytical processing, new educational and scientific opportunities are created in the field of physical culture and sports, which contributes to the readiness of future specialists in physical culture and sports to innovate. professional activity. Especially appropriate is the use of modern multimedia technologies, the use of web resources in the

educational process during distance learning in quarantine restrictions to prevent the spread of Covid19 (Fig. 2).

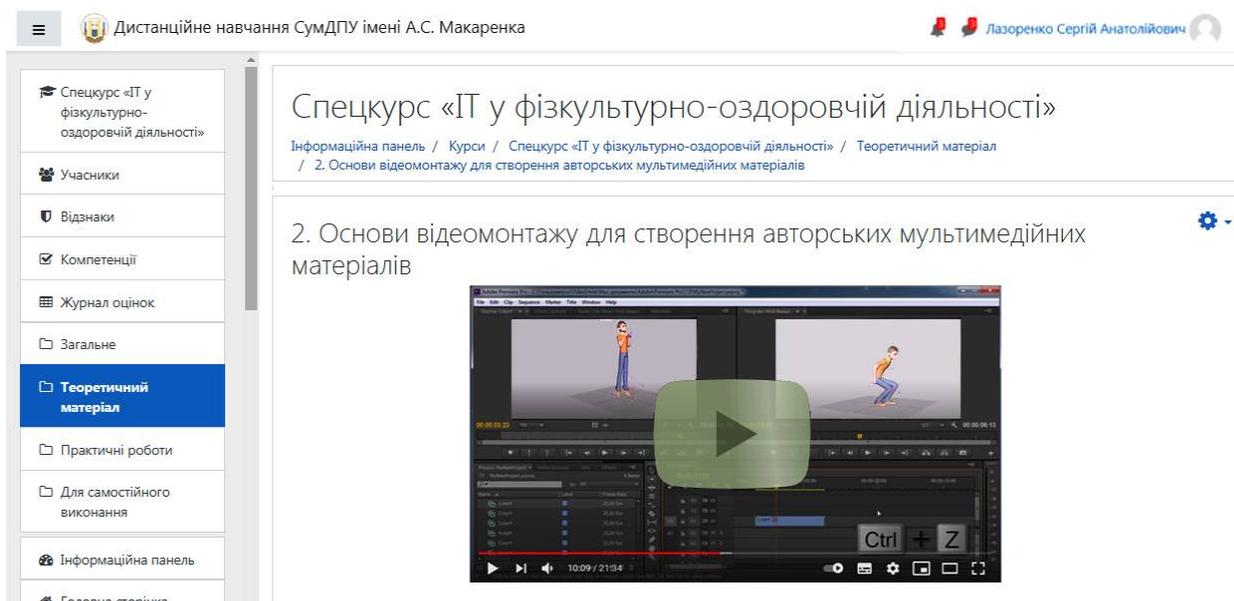


Fig. 2. Learning the technique of performing basic exercises in parkour on the Moodle platform in terms of distance learning

When creating effective teaching methods using IT, it is advisable to follow the ideas of constructivism and connectivism. This involves the organization of training as an active process of acquiring knowledge that allows to develop and form a higher level of understanding and awareness of phenomena, processes, objects studied in the context of combining information resources and joint activities to achieve the goal. The use of IT to train future professionals in physical culture and sports on the basis of constructivism and connectivism must meet the following requirements: the ability to create a network of links between different sources of education; activity approach to learning; formation of the ability to build information networks of physical culture and health knowledge; involvement of information technologies that help, assist in learning; organization of joint activities in the environment.

Nowadays the information support is impossible without the use of information technologies and the tools that make it possible to search for

information over the Internet. It is crucial to analyze the empirical data on the tracking of physical characteristics of sportsmen, use of specialized software to support the educational process through the visualization of separate sport movements (or physiological changes in the human body), organize the professional interaction in chats or social networks, etc.

This highlights the necessity to develop the ability to use digital technologies, including digital health technologies for rapid analysis of professional information, critical evaluation of it and use in professional activities [15].

The key elements of digital health as a result of the integration of information technologies with health care have been identified by Dr. Eric Topol. According to E. Topol, they include: wireless devices, sensors, hardware and software, microprocessor and integrated circuits, the Internet, social networks, mobile networks, health information technology, genomics and personal genetic information. Digital health includes such categories, as: mobile health (mHealth), wireless health, health 2.0, electronic health (e-Health), electronic patients (e-Patients), healthcare IT, health and healthcare data, cloud computing, telemedicine, personalized medicine, and other health-related notions [17-20].

The results of the survey showed that the majority of respondents (86%) have difficulties in the period of adaptation in the professional space during the professional development, which are related to various reasons. The greatest difficulty among the respondents were a psychological problems (53%), because of reflection the inner feelings of the graduate in the period of adaptation to professional activity. Thus, 38% of respondents indicated uncertainty about their own professional competence in the face of rapidly growing technological progress, and only 15% attribute these difficulties to other reasons (emotional stress due to difficulties at work, difficulties in communicating with other colleagues, rejection in the team,

difficulties in communicating with the staff). The fact that a significant proportion of respondents (36%) had a lack of knowledge, skills, and abilities to use digital health technologies to support their professional activities was of particular note in the survey.

The obtained data allowed to formulate the following conclusions: the vast majority of specialists in physical culture and sports have a superficial idea of digital health technologies and the peculiarities of their use to support professional activities; the vast majority of specialists in physical culture and sports do not implement them in practice due to lack of knowledge, skills, abilities to work with information resources.

The results of the questionnaire gave grounds to claim that for young professionals who are well versed in the means of the information technologies adaptation in the professional space is much easier. Thus, a significant amount of the necessary literature can be found on the Internet, visual and demonstration materials can be found on social networks or channels or made by the professional, and the exchange of experiences can be systematically carried out in special forums or online conferences.

The special course “Digital Health Technologies” was introduced into the educational program for training specialists in the specialty “Physical Culture and Sports”.

The purpose of studying the special course “Digital Health Technologies” is the formation of information and digital culture of the future specialist in physical culture and sports through the formation of meaningful and responsible attitude to the health, knowledge about health and a healthy lifestyle, digital technologies of support and control over health, ability to use digital health technologies in professional activities and reflection skills in relation to their application.

The main tasks of studying the special course are: mastering the basics of a healthy lifestyle; formation of ideas about information methods

and digital means that preserve and strengthen health; formation of understanding of the essence of culture, culture of health and healthy lifestyle; formation of motivation to maintain health as the highest value by means of information technologies; education of the need for real health practice with the involvement of information technologies, their active creative use to achieve life and professional goals; formation of skills to independently develop technologies for the application of information technologies of individual rehabilitation, aimed at prevention, correction of personal health, support and development of body resources.

The laboratory workshop contains a theoretical block (includes educational information), a practical block (the use of social networks for educational purposes, use of web technologies of health-preserving subjects, performance of settlement and graphic works directed on definition of weight of the person, measuring the characteristics of physical activity, calorie counting and physical activity, i.e. the use of so-called “mobile nutritionists and trainers”, etc.), help block (dictionary of basic terms through blogs, wiki, social networks, podcasts, chats, video sharing) and control block (special testing program).

The purpose of exercises in practical block was to expand students' understanding of the possibilities of using the Internet, deepen theoretical knowledge of the profession, improve skills of search, processing and analysis of professional information, use of digital technologies to solve professional problems, develop logical and critical thinking. This approach simulates the content of future professional activity, reproduces the conditions and actions in which information and digital technologies are used.

Conclusions. Theoretical analysis of research and generalization of practical experience indicates that improving the quality of training of specialists in physical culture and sports requires special attention to the

optimization of the educational process. The growing role of physical culture and sports, the specification of the challenges facing physical education, urgently require improvement of the organizational structure of management of physical education on the basis of innovative approach and purposeful use of laws of social and economic development of information society, specific laws of physical culture and laws and principles training and education.

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