

DOI: <https://doi.org/10.34069/AI/2023.70.10.14>

How to Cite:

Aliexsieiev, O., Zubal, M., Raytarovska, I., Skavronskiy, O., & Babiuk, S. (2023). Implementation of blended learning in the students training of the specialty physical culture and sports. *Amazonia Investiga*, 12(70), 156-166. <https://doi.org/10.34069/AI/2023.70.10.14>

Implementation of blended learning in the students training of the specialty physical culture and sports

Реалізація змішаного навчання у підготовці здобувачів освіти спеціальності фізична культура і спорт

Received: August 10, 2023

Accepted: September 30, 2023

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Abstract


The essence of the professional training of future specialists in physical culture and sports in the conditions of blended education is clarified, and the key concepts of the study are defined. The components of information and digital culture are considered; principles of professional training of future specialists in physical culture and sports in conditions of blended education; the main features that characterize the professional training of future specialists, that form the competence of the individual, contribute to individual creativity, erudition, independent search for knowledge, mastery of skills and abilities and contribute to the need for their improvement, increase personal culture and love for one's profession; the most effective groups of methods are singled out and modern approaches to professional training in conditions of blended learning are highlighted. Modern


Анотація


З'ясовано сутність професійної підготовки майбутніх фахівців з фізичної культури і спорту в умовах змішаного навчання, дано визначення ключових понять дослідження. Розглянуто компоненти інформаційно-цифрової культури; принципи професійної підготовки майбутніх фахівців з фізичної культури і спорту в умовах змішаного навчання; головні ознаки, що характеризують професійну підготовку майбутніх фахівців, що формують компетентність особистості, сприяють індивідуальній творчості, ерудиції, самостійному пошуку знань, оволодінню навичками й вміннями і сприяють потребі їх вдосконалення, підвищують культуру особистості та любов до своєї професії; виокремлено найбільш ефективні групи методів та виділено сучасні підходи до професійної підготовки в умовах змішаного

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professional training of future specialists in physical culture and sports is presented as requiring the use of digital resources and the latest technologies of education and training. The digital resources that are the most common during the professional training of future specialists in physical culture and sports in the format of blended education have been identified.

Keywords: professional training, future specialists in physical culture and sports, blended learning, modern approaches, digital resources.

Introduction

In the world society, the integration and globalization processes require recognition by the world community of the problem of maintaining psychological and physical health as the main indicator of the economic and social maturity of members of society, the dynamic development of culture, technology, the success of the public sector, and the training of physical culture and sports specialists requires a special attitude. The development of the educational system and training of competitive physical culture and sports specialists is required by the latest trends of society based on information technologies in the functioning and creation of an appropriate high-quality and high-tech information and educational environment, the importance of which, recently, is growing and significantly affects the quality process of development and formation of information-digital culture of future specialists in physical culture and sports. Only with a sufficient level of technological preparation, informational competence, and digital literacy, a specialist in physical education and sports can find rational ways to solve professional problems, navigate problematic situations, and be competitive in the labor market. Such an approach, which leads to the wide use of IT in the educational process by future physical culture and sports specialists, can be effective in conditions of blended learning (Lazorenko, 2020).

In today's difficult conditions, in the conditions of blended education, becoming a future specialist in physical culture and sports is possible only based on the conversion of theory and practice of physical culture and sports education, sports and pedagogical knowledge,

навчання. Сучасну професійну підготовку майбутніх фахівців з фізичної культури і спорту подано як таку, що вимагає використання цифрових ресурсів і новітніх технологій навчання та виховання. З'ясовано цифрові ресурси, що є найпоширеніші під час професійної підготовки майбутніх фахівців з фізичної культури і спорту в форматі змішаного навчання. У результаті аналізу професійної підготовки майбутніх фахівців з фізичної культури і спорту визначено важливі моменти застосування технологій змішаного навчання під час освітнього процесу.

Ключові слова: професійна підготовка, майбутні фахівці з фізичної культури і спорту, змішане навчання, сучасні підходи, цифрові ресурси.

specialization of the specialist mainly in-game sports that develop intellectual and creative, physical abilities of a person and contribute to the development of moral and volitional qualities of the individual in a complex with the mastery of a healthy lifestyle and health care skills by the students of education (Khrystova et al., 2021).

The global digitization of the educational space has been observed over the last decade, which is accompanied by the use of online learning technologies and information and communication technologies, the strengthening of the academic mobility of students, and the increase in the amount of their independent work (Plakhotnik et al., 2023). As a result of the combination of the latest and traditional technologies, resource-enriched combined educational environments appear under the influence of such innovations, in which the traditional system of the educational space transforms. The result of such innovative changes is the development and emergence of a new educational paradigm, which is aimed at the specific integration of the best elements of such approaches (Danysko & Semenovska, 2019). This innovative phenomenon in modern scientific literature is defined as combined, blended, hybrid training, which has a powerful potential in terms of providing educational opportunities and contributing to the professional development of future specialists. Therefore, we will consider the professional training of future specialists in physical culture and sports in conditions of blended education.

Literature Review

O. Savonova (2019) showed the advantages of using blended learning technologies and singled out the peculiarities of training future specialists in physical education and sports through the use of empirical and theoretical research methods: synthesis, analysis, generalization of the results of the effective application of blended learning technologies in the training of future specialists in physical education and sports. The importance and necessity of creating a scientific-methodological center of blended learning technologies in order to ensure the integration of blended learning technologies in the educational process of the faculties of physical education to improve the quality of education, to carry out measures to increase the level of skills, knowledge, and skills of students in the implementation of blended learning is substantiated; scientific substantiation and development of methodological and theoretical foundations for the effective use of blended learning technologies in the educational process; provision of consulting and methodical support for scientific and pedagogical workers; ensuring the systematic update of the electronic information system of open access, ensuring the organization of blended learning; search and research of new ways and software and technical solutions to improve the effectiveness of blended learning; monitoring the organization of blended learning, carrying out an expert assessment of the quality of this process.

Ya. Yermiia, Yu. Moseichuk, & O. Moroz (2023) showed ways to improve and develop the subject-methodical competence of future physical education teachers using generalization, analysis, and systematization of literary sources and scientific research data. The ways and foundations of improving the subject-methodical competence of future specialists in physical culture and sports have been established. The issue of improving the qualifications of modern school teachers has been updated; ways of modernization of the higher education system based on the competence approach are shown. The structure was considered, and the essence of the concept of "subject-methodical competence of the future physical culture teacher" was revealed. An integral part of physical culture and health activities is shown: the subject-methodical skills of future physical culture teachers, and the professional training of specialists at the practical and theoretical levels are revealed.

S. Atamaniuk (2022), the methodological basis of the study of their professional training for the

use of innovative types of motor activity in their professional activity was considered in the case of future physical culture and sports specialists. At the methodological level, existential and dialectical approaches are distinguished; systematic approach – at the general scientific level; professional-personal, health-improving, activity-based, reductionist, innovative, bio-socio-cultural, gender – on a concrete-scientific basis; teaching methods – technological. The level of research methodology is characterized by dialectical and existential approaches; the general scientific level of the methodology is characterized by a systemic approach, as it involves a systematic combination of interrelated system-forming factors; the specific scientific level of the methodology is determined by the need for the following approaches: reductive, bio-socio-cultural, professional-personal, activity-based, health-improving, innovative, gender-based, to the use of innovative types of motor activity of future physical culture and sports specialists in their professional activities.

O. Danysko, & L. Semenovska (2019) summarized and characterized the methods of blended learning based on the theoretical analysis of scientific literature. The methods that are expedient to use in the professional training of future physical education teachers are singled out. The author's definition of blended learning is presented, which is an innovative, personally oriented model that is necessary for the organization of the educational process and includes the following educational components – traditional learning, distance learning, and electronic learning, is a factor in ensuring open, continuous education throughout life. Blended learning is presented as a teaching system based on the self-learning of students in the process of interacting with information sources and the teacher using the latest technologies. The specific methods of blended learning implemented in the information and educational environment have been clarified. The need for the professional training of future specialists in physical culture and sports with a methodological toolkit in blended education, which integrates traditional and computer-oriented methods of formation of professionally significant skills, knowledge, skills, and universal competencies in students of education, has been proven. The main groups of methods are characterized and singled out, which should be combined with elements of remote, traditional, and electronic components of didactic interaction: problem-based, visual, verbal, practical, self-education, self-control, and control of educational achievements.

T. Khrystova, I. Rebar, & A. Abdullaiev (2021) devoted their research to the professional formation of a physical culture specialist based on the conversion of practice and theory of physical education, sports, and pedagogical knowledge, specialization of a specialist in game sports that contribute to the development of moral and willpower qualities and physical, intellectual and creative abilities of children combined with the formation of healthy lifestyle skills. The scheme of training a future specialist in physical culture for sports and games is summarized. The main principles of physical culture teacher training are highlighted: general didactic (individualization, visibility, age appropriateness, accessibility, differentiation, activity, integrity, reflexivity, sequence of task implementation, purposefulness); special (dynamism of the educational and training process, repetition of training cycles, unity of special game training and general physical, gradual increase in physical load, variety and novelty of educational and training activities). The functions of the activity of a physical culture specialist were identified: the basic pedagogical and professional function (competencies: educational, informational, cognitive, subject-subject relations, communicative, health-preserving, physical culture professionally oriented function (methodical sports and games, training sports and games, sports-game refereeing, moral and volitional qualities of the athlete), specialized sports-game function (competencies: orthobiotic, ergonomic, restorative, sports-game, children's health research). The criteria for the effectiveness of the professional training process are substantiated.

S. Lazorenko (2020) the conditions of blended training, attention is focused on the development of information and digital culture and the development of a model of the system of professional training of future specialists in physical culture and sports in the conditions of blended training, which is presented as a complete structure that can provide professional systematic training of future specialists. Principles and methodological approaches are laid down in the training of future physical culture and sports specialists. The theoretical concept is modeled in the conditions of blended learning, the process of formation of the specialist's information and digital culture, which determines the system of initial categories, ideas, and basic concepts, is shown. The practical concept is described as the main one in professional training, which provides a practical solution to the problem. In the conditions of blended education, the possibilities of improving

the forms, methods, content, and means of education are shown. The results of the diagnosis of the results of the professional training of a physical culture specialist are presented, which is based on the indicators and criteria of the formation of the components of the information culture of future physical culture specialists.

V. Naumchuk (2009) presented the basics of independent activity of students of physical education faculties and showed the theoretical foundations of their professional training, substantiated conditions for improving professional training, revealed the importance of sports games for the professional development of future physical culture specialists in the process of independent work on sports games.

The problem of clarifying the modern conditions for the training of specialists, clarifying the specific scientific methodology for blended learning, distance learning, mobile learning, etc. remains open. Therefore, **the purpose of the study** is to clarify the essence of the professional training of future specialists in physical education and sports in the conditions of blended education.

Methodology

In accordance with the objectives of the research, a set of interrelated research methods was used: theoretical: analysis, generalization, synthesis of the main normative documents, reports on research issues, provisions of scientific works and prospects for improving the problem of professional training of future specialists in physical culture and sports in the conditions of blended education; reforming higher education; induction and deduction in order to establish cause-and-effect relationships between political, pedagogical, cultural, and social phenomena from the problem of professional training of future specialists in conditions of blended education; logical and epistemological analysis of theoretical individual provisions, empirical data and scientific identification – for the purpose of analyzing scientific sources and ensuring the reliability of results; system-structural, component-structural, system-functional methods – with the aim of highlighting the main components of the professional training of future specialists in physical culture and sports in the conditions of blended training, substantiating the patterns and identifying the features of its development.

The modeling of the process of professional training of future specialists in physical culture

and sports in conditions of blended learning is based on the following methodological approaches (holistic, activity-based, systemic, BYOD-approach, person-oriented, multi-subject, integrative, technological, cultural, visual-digital, student-centered approaches).

The following principles were used in the analysis of the professional training of future specialists in physical culture and sports in the conditions of blended training: the use of a blended educational environment, professional training; generally didactic, and the creation of digital educational resources.

The theoretical concept defines a system of basic concepts, initial categories, and ideas without which it is impossible to understand the problem, to reveal its essence, and contains the following provisions:

- the phenomenon of blended learning is a formation that has a complex structure and must be formed through its components;
- the organization of a blended educational environment in a higher education institution requires a clear and harmonious combination of remote and traditional technologies;
- the formation of the information and digital culture of future specialists in physical culture and sports in the conditions of blended education is implemented as a pedagogical system, is a component of their professional training, consisting of interconnected subsystems;
- the necessary conditions for the professional training of future specialists in physical culture and sports in conditions of blended education are:
 - 1) digitalization of professional training, complex design of a blended educational environment, strengthening of interdisciplinary connections between disciplines;
 - 2) ensuring communication with stakeholders, optimizing communication between participants in the education process, overcoming psycho-emotional barriers to working with IT;
 - 3) strengthening the humanistic values of physical culture, consideration of historical aspects of the development of the field of physical culture and sports in the conditions of blended education, formation of value attitudes towards the use of IT;
 - 4) the organization of future specialists in physical culture and sports quasi-

professional activities in the direction of the development of skills to use IT of a professional orientation.

The practical concept provides a system of actions that provide practical training of future specialists in physical culture and sports in the conditions of blended education, contribute to the solution of the problem, and is characterized by the following provisions:

- in the conditions of blended education, it is necessary to form the information and digital culture of future specialists in physical culture and sports;
- professional training of future specialists in physical culture and sports requires the ability to self-educate; in the conditions of blended education in the field of health, taking into account the development of digital technologies, awareness of future specialists in the field of IT;
- high-quality training of specialists takes place through the educational system, the implementation of which is based on blended education in a higher education institution;
- requires the development of intellectual abilities, mental capacity, and optimization of communication between the teacher and students;
- requires the formation of assessment skills, critical analysis, and comparison.

Results and Discussion

Modernity sets an innovative goal of professional education in the field of physical culture and sports – the training of competitive specialists who can significantly increase the effectiveness of physical culture in society (Ivanenko et al., 2018).

When organizing an educational, competitive, and developmental process in a higher education institution, scientists identify several necessary directions (Zavatska et al., 2011):

- definition of the most essential types of professional activity within the framework of the profession for those seeking an educational space;
- optimization of the personal qualities of education seekers and the content of professional motivation, which involves the correction and diagnosis of the motivational sphere of education seekers, as well as the development and diagnosis of their necessary personal qualities;

- by the economic criteria of competitiveness, professional training of future specialists in physical culture and sports in the conditions of blended training for interaction in the labor market. Such areas of activity are broader than the framework of the traditional educational process. Therefore, they should be under the close attention of teachers due to their actual importance in the training of specialists in physical culture and sports. Such training can take place within the framework of psychological and pedagogical support for the development of the competitiveness of educational space applicants (Sukhanova & Ushakov, 2019).

The present shows that the future is based on a blended form of educational space, where together with remote forms, there should also be forms of classroom practical classes since the teacher is one of the main factors that affect the success of education seekers. When training future specialists in physical culture and sports, it is impossible to fully master the rational technique of movements at a distance, even using the most modern computerized simulators, sports equipment, videos, and video films with the image of exemplary execution of the technique of movements. Although the modern multimedia learning environment is an assistant in the educational process, only an experienced teacher, or a mentor can perfectly teach rational tactical actions, and motor exercises, set the ideal technique of movements, and reveal the individuality of the student of education. Therefore, the importance of professional training of future specialists in physical culture and sports in conditions of blended education is undeniable (Bielikova, 2014).

The most used term is "blended learning" by American scientists D. Garrison and N. Vaughan (2012). Scientists interpret blended learning as a well-thought-out combination of face-to-face and online educational experiences.

So, blended learning is a term applied to the educational practice of professional training of future specialists, which is carried out with the help of a certain combination of direct electronic and face-to-face learning. It is thanks to the use of mediated, technological components of such practice that learners and teachers do not necessarily have to be in one place physically together, but can be present in the digital environment virtually through the global Internet network.

Blended learning is a system of teaching that combines distance, face-to-face, and electronic learning, which is based on the self-learning of the learner in the interactive process of interaction with sources of information and the teacher using the latest information and communication technologies. The effectiveness of the distribution of offline components or online determines the nature and content of the activities of education seekers in the process of practical improvement of knowledge, the support system from the teacher, skills, abilities, studying the material, evaluating the level of educational achievements, etc. The basis of such an innovative synergistic system is electronic learning, which enables the combination of distance and traditional learning in various ratios and causes the emergence and spread of blended learning, as well as contributes to the formation of a polyphonic educational environment, which ensures the use of innovative methods of organizing the educational environment (Danysko & Semenovska, 2019).

The professional training of future specialists in physical culture and sports in the conditions of blended education involves the formation of components of information and digital culture:

- 1) axiological – awareness and understanding of the importance and role of IT in professional activity, worldview of information and digital technologies in the information society;
- 2) technological – for designing professional activities, the ability to use ICT, the possession of software, various computer equipment, multimedia technologies, network technologies, presentation technologies, etc., the ability to implement a personally oriented educational process, design educational and training classes, etc.;
- 3) motivational – motivating the use of IT for the professional orientation of future specialists in physical education and sports in the conditions of blended education;
- 4) information – the ability to design digital educational resources; professional skills for working with information and knowledge: management, search, creation of information, evaluation, transfer, etc.;
- 5) suggestive – with the help of verbal channels of possession of the means of non-verbal and verbal emotionally colored influence to broadcast the necessary professional information;
- 6) communicative – speech professional training of future specialists in physical education and sports in the conditions of blended education;

- 7) reflexive – the ability to develop and improve in the field of digital technologies for personal development of the personality and high-quality professional activity (Lazorenko, 2020).

The system of professional training of future specialists in physical culture and sports in the conditions of blended education is based on the principles of continuity of education, integrativeness, fluidity, transferability, self-education, and continuity (Bida et al., 2018). The main feature of an effective system of educational space, which determines the essence of the principle of continuity, is the merging of basic education and further practical training of specialists in physical culture and sports in the conditions of blended training for social and labor activities into a coherent, unified educational process. The following principles step by step specify the content of the system of professional training of future specialists in physical culture and sports in the conditions of blended education and reveal the main factors of application in a hierarchical sequence (Kuzminskyi et al., 2021).

In addition to the above, principles such as systematicity, independence, fundamentalization, binary, humanization, scientificity, integrity, modeling, universalization, individualization, systematicity, connection with life, and dynamism are important in the training of future specialists in physical culture and sports in the conditions of blended education, flexibility, and others (Zorochkina et al., 2023).

The general principles of human activity determine the implementation of specific principles in the professional training of future specialists in physical culture and sports in the process of independent work on sports games, as they serve as basic provisions for developing conditions for improving the educational process, taking into account the specifics of sports games. The principles of professional training of future specialists in physical culture and sports in the conditions of blended education organically complement each other, are implemented in unity, not in isolation, are in a close relationship, and are deeply integrated (Naumchuk, 2009).

We believe that the principles of training a future physical education teacher are important:

- general didactic (visibility, accessibility, activity, individual approach; differentiation, sequence of task implementation, age appropriateness, purposefulness, integrity, reflexivity)

- special (dynamism of the educational and training process, repetition of training cycles, unity of general physical and special game training, gradual increase in physical load, novelty, and variety of educational and training activities) (Khrystova et al., 2021).

Let us name the main features that characterize the professional training of future specialists in physical culture and sports in the conditions of blended education, form the competence of a specialist, promote individual creativity, erudition, independent search for knowledge, mastery of skills and abilities and contribute to the need for their improvement, increase personal culture, love for his profession. They talk about the professional readiness of future specialists and show the result of their professional training, which is a stable integrative education, which, based on the formation of the needs and abilities of the personality of the acquirer of the educational space, manifests itself in a clear form and is characterized by a normative level of transformation into a system of professional functions of social relations, which determines the attitude to the pedagogical activity of the future specialist and shows effectiveness.

The main goal of the professional training of future specialists in physical culture and sports in a modern and future educational institution should be the formation of a creative personality that teaches itself. Therefore, the basis of professional training of specialists is their independent work. The main thing in the independent work of a student of education is solving a cognitive task without direct help from the teacher. Then the independent activity of the student of education will be aimed at the transition to the creative solution of tasks from the method of simple reproduction (Naumchuk, 2009).

Thus, we prove that independent work in professional training is one of the methods of forming a highly qualified specialist. It sets the following tasks that must be solved in the conditions of effective cognitive activity and is provided by a clear individual educational schedule of the student, the availability of textbooks, lecture texts, methodical guides, etc. (Khrystova et al., 2021).

We will single out the most effective groups of methods of professional training for future teachers of physical culture in the conditions of blended education:

- 1) verbal – involves direct communication with the teacher in the classroom during classes

- (discussion, lecture, explanation, story, instruction, instruction, prompt reminder) and indirect (working through instructional materials, listening to audio, working with open resources (blog, website), electronic textbooks and manuals, educational catalogs, real-time online chat discussions, etc.);
- 2) visual – involves visualization of new information directly by the teacher (showing, statistical visualization, illustration, demonstration of exercise technique) and the use of multimedia technologies (viewing movies and videos, presentations, online broadcasts (sports competitions, video lectures, screencasts, etc.), analysis and generalization of educational information, virtual tours;
 - 3) practical methods – based on the acquisition of future specialists in physical culture and sports in the conditions of blended training of theoretical knowledge from the basics of the sciences of the specialty and specialization, the formation of practical skills of activity;
 - 4) problem-search methods contribute to a more independent and meaningful mastery of knowledge and are used to develop the professional activity of future specialists, the skills of creative educational and cognitive activity of those seeking education (direct analysis of educational resources, searching for information in thematic lists, catalogs, directories, etc., solving problem situations)
 - 5) methods of self-education form in students the skills of independent cognitive search, a meaningful and responsible attitude to the process of self-education, self-development, self-organization, and the ability to improve one's qualifications throughout life. In blended learning, it is possible to use traditional (creating reference schemes, taking notes, completing independent work tasks, reading additional literature, independent exercise, sports clubs, participation in face-to-face training) and computer-oriented (creating mental maps, creating an electronic portfolio, participating and exchange of experience in online professional communities, independent search and processing of information on the Internet, training and online courses) methods;
 - 6) methods of monitoring and self-monitoring of educational achievements include current, intermediate, and final monitoring of the abilities and skills of students, their achievement of learning outcomes, and the ability to predict the consequences of their activities. The use of blended learning allows you to use computer-oriented methods of a

programmatic and communicative nature (webinars, online surveys, interactive educational lectures with elements of formative assessment, automated test programs, and questionnaires).

At the level of academic disciplines, traditional and electronic learning methods can be implemented through various didactic techniques aimed at achieving a specific goal (Danysko & Semenovska, 2019).

We will highlight modern approaches to the professional training of future specialists in physical culture and sports in the conditions of blended training: personally oriented, environmental, systemic, and activity-oriented. These approaches actualize the process of professional training of future specialists in physical culture and sports. We will emphasize the need in the educational process to use an innovative approach that shows future specialists in physical culture and sports the advantages of the latest technologies and methods. The valeological approach provides for the provision of skills, knowledge, and health maintenance skills and is based on consideration of the acquisition of health improvement skills using natural means, and independent health maintenance.

This will make it possible to prepare future specialists in physical culture and sports for the implementation of innovations and to target them on non-standard professional activities of various segments of the population. Modern approaches provide new information for a balanced impact on motor activity, intellectual and physical qualities, mental functions, and sports abilities of the person seeking education (Atamaniuk, 2022).

Modern professional training of future specialists in physical culture and sports takes place everywhere in the world educational space in the conditions of blended learning, which requires the use of the latest education technologies, training, and digital resources. Modern methods of blended learning are saturated with various models (Moseichuk, 2017), which allows future specialists in physical culture and sports:

- to propose ways and implement modern health improvement technologies in the practice of physical education of school-age children;
- independently choose methods, forms, and means of introducing the latest healthcare technologies into the educational process with children and youth. With this approach, the professional worldview of future

specialists in physical culture and sports is formed, which is the basis of interdisciplinary features of training, professional and methodical competencies; individual physical culture and health measures are determined; strategic changes are being formed in the field of professional activity; the educational process in physical culture and sports improves (Yeremiia et al., 2023).

Therefore, the use of digital technologies is an integrated, indispensable component of the training of future specialists (Molchaniuk, 2019). In the practice of their professional training, technical means are used: mobile (smartphones, tablets), stationary (interactive whiteboard, computer, etc.), which are also united under the concept of "digital technologies" (Yarmoshchuk & Vasyliuk, 2018).

The digital resources that are the most common during the professional training of future specialists in physical culture and sports in the format of blended training have been identified:

- web servers for creating educational games, interactive tests, discussions, quizzes, and surveys: LearningApps, EDpuzzle, StudyStack, Kahoot, Master test, Quizalize, Quizziz, Triventy, Google From, Plickers, Mentimeter, ClassMarker;
- application programs: MS PowerPoint, MS Word, MS Excel, cloud technology tools, web browsers;
- means of electronic asynchronous communication: forums, e-mail, educational groups in social networks;
- means of communication: Google Meet, Zoom, Google Classroom, Skype, Instagram, ClassDojo, Facebook, Viber, Telegram and others;
- means of electronic synchronous communication: messengers, chats, video conferences;
- software (mobile) for relationships to monitor activity, educational activities: number of steps, distance covered, speed, etc.; breathing, energy expenditure: Health, Google Fit, Nike Plus Running, HealthKit, MyFitnessPal, Fitbit, RunKeeper, Samsung Health, Endomondo Sport Tracker, Runtastic); physical condition: Digifit iCardio, Google fit, Heart Graph, Breathe, Yoga Breathing Exercises, BackExercises; body water balance: Watercheck, Waterbalance, Water Your Body, Water Drink Reminder, Watermania, WaterLogged, Hydro; body weight, diet balance: Fatsecret, Lifesum,

Myfitnesspal, Yazio Calorie Counter, Dialife, Eat Slower, LoseIt;

- online platforms: Prometheus, Educational Era, LearningApps.org, and others, which will allow you to master the latest news and trends, and get informal education without spending excessive resources;
- video analysis and motion capture systems: Expert Vision Analysis, Motion Analysis Corp; Vicon, Oxford Metrics; Charnwood Dynamics, CODA, BioVideo, Kinovea; Dartfish;
- web servers for creating mind maps, and memory cards: Mindomo, MindMeister, Spiderscribe;
- to create multimedia posters on web servers: Thinglink, Glogster;
- web servers for creating interactive infographics, animations, presentations, video scribing, PearDeck, SparkolVideoScribe, and Nearpod.

Today, digital technologies are the main component of the educational process during the professional training of future specialists in physical culture and sports in the format of blended education and contribute to the high-quality formation of professional and general competencies, allowing to prepare competitive, highly qualified specialists for professional activities (Hrabyk & Hrubar, 2022).

As a result of the analysis of the professional training of future specialists in physical culture and sports in the format of blended training, important points of application of blended training technologies were determined:

- 1) the ability to ensure the individualization of professional training of future specialists in physical culture and sports; the opportunity to timely single out students who have understood the main points in the process of mastering the material, and the discipline and to react immediately. Due to this, the motivation of students to intensive independent work is improved, optimally selected educational information will help the student to learn to independently plan his educational activities, think critically, control and regulate the educational process, objectively assess his opportunities while developing;
- 2) thanks to the use of electronic training courses during the professional training of future specialists in physical culture and sports in the format of blended training, the teacher has the opportunity to save time at the stages of monitoring educational achievements and

explaining a separate topic, to concentrate his activities on practicing practical skills in the discipline;

- 3) classes become more fast-paced, and more interesting because they are held in the form of quests, games, discussions, competitions, and presentations of the results of educational projects; students have the opportunity to use a pair of mobile phones to search for the necessary information on the Internet quickly; there is no need to take notes in class, it can be viewed on the course in the Moodle system; it is allowed to prepare and present reports, search for solutions to non-standard problems as a team, win and get satisfaction from the educational process (Savonova, 2019).

Conclusions

The essence of the professional training of future specialists in physical culture and sports in the conditions of blended education is clarified, and the key concepts of the study are defined.

The components of information and digital culture are considered; principles of professional training of future specialists in physical culture and sports in conditions of blended education; the main features that characterize the professional training of future specialists, that form the competence of the individual, contribute to individual creativity, erudition, independent search for knowledge, mastery of skills and abilities and contribute to the need for their improvement, increase personal culture and love for one's profession; the most effective groups of methods are singled out and modern approaches to professional training in conditions of blended learning are highlighted.

Modern professional training of future specialists in physical culture and sports is presented as requiring the use of digital resources and the latest technologies of education and training. The digital resources that are the most common during the professional training of future specialists in physical culture and sports in the format of blended education have been identified.

As a result of the analysis of the professional training of future specialists in physical culture and sports, important points of application of blended learning technologies during the educational process were determined.

We plan to direct further research to clarify the role of digital technologies, which are the main

component of the educational process during the professional training of future specialists in physical culture and sports.

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