https://www.proconference.org/index.php/usc/article/view/usc16-01-026
DOI: 10.30888/2709-2267.2022-16-01-026

UDC 378

USE OF INTERACTIVE TOOLS FOR THE ORGANIZATION OF DISTANCE LEARNING IN THE DISCIPLINE "SPORTS METROLOGY"

Podlesny S.V.
c.t.s., as.prof.
ORCID: 0000-0001-8271-4004
Donbass State Engineering Academy, Kramatorsk, Academichna 72, 84313

Abstract. *Various interactive tools are now widely used to organize elements of face-to-face learning, mainly to support and independent work of students. However, the use of these tools in a remote format, as well as the study of the possibility of expanding and modifying the forms of classes in these conditions seem to be a rather urgent task for studying. Training with the use of these tools takes place in three stages: preparatory, procedural and control. The use of such tools is based on the principle of individualized learning, in which each student studies within his own schedule, receives personal advice from the teacher, and has a personal educational space. Andthe use of interactive learning tools in the organization of classes allows you to increase the effectiveness of training in a distance format.*

Key words: *sports metrology, distance learning, interactive learning tools, MOODLE, physical education, independent work, students.*

Introduction.

The modern educational process in higher education requires a significant expansion of the arsenal of teaching tools, the widespread use of information and communication technologies, electronic educational resources integrated into the electronic educational environment. This is a complex of program, technical, educational, methodological, organizational, managerial components of the system of the educational institution, providing prompt access to the necessary information and organizing subject-subject communication between the participants in the educational process in order to reveal their creative potential. Many teachers of educational organizations of higher education seek to adapt their pedagogical activities in accordance with these requirements.

Distance learning is a form of educational activity without visiting an educational institution, personal contact between the student and the teacher using the Internet or information and communication technologies. Specialists in strategic problems of education call distance learning the educational system of the 21st century [1-4].

Main text.

With the modern development of sports science requires the professional competence of a future specialist in the field of sports metrology.

In this case, professional competence is considered as a category determined by the level of professional education, individual abilities of a specialist and implies readiness to solve emerging professional problems, a value attitude to pedagogical activity and a high level of his professional culture. Itis made accurate only when it is possible to use a specially created mathematical model to describe it, which gives grounds to assert the need to adapt specialists to the needs of modern society and be a mathematically literate person. Mathematical competence is a systemic property of the subject's personality, characterizing his deep awareness in the subject area of

knowledge, the personal experience of the subject, aimed at prospects in the field of perspective. practical activity, open to dynamic enrichment, capable of achieving significant results and quality in mathematical activity. In determining the substantive characteristics of the categories of "mathematical competence", the decisive role is played by the orientation of the physical culture and sports specialist to pedagogical activity, his professional competence [5-6]. For professional knowledge, it is necessary to constantly improve, expand the field of communication, information and knowledge. The essence of interactive training in the discipline of sports metrology is to ensure that the educational process is organized in such a way that almost all students are involved in the learning process, have the opportunity to quickly receive the necessary information, respond to it, have an adaptive, personality-oriented training program.

Advantages of distance learning: the possibility of training regardless of location, at a convenient time, at an individual pace; the possibility of on-the-job training; round-the-clock access to online libraries; the possibility of using innovative technologies; the ability to communicate with different specialists online and offline, regardless of territorial location.

In the current environment, it is critical to properly structure an e-learning course as a means of supporting the learning process. Natural workers are obliged to develop cognitive activity, independence, initiative, creative abilities, the ability to work and live in the modern world, to form a culture of a healthy and safe lifestyle among students.

And interactive information interaction is defined as a process of direct or indirect interaction of subjects, during which information (information) is exchanged, leading to a qualitative change in the competence of at least one of the recipients of this information. Thus, interactive information interaction in the conditions of the educational process is understood as the relationship "teacher - student" and "student - student". The teacher is reduced to directing the activities of students to achieve the goals of interaction. The pedagogical system of interactive information interaction can be defined as a set of elements of the pedagogical process and their connection in statics and dynamics, reflecting a phased change of goals, means of their achievement, the nature of the activities of the teacher and students, the results of the pedagogical process in the conditions of interactive information interaction of participants in the educational process.

To implement distance learning, the Moodle learning management system was chosen. At the moment, it has the entire functional set to support the educational process. Firstly, the material can be presented in graphic, video, audio, text form, which makes it possible to provide a lecture note for more visual study. Secondly, the system allows you to develop educational and methodological materials - workbooks, lectures, practical classes, lessons, tests. Thirdly, with the help of the shell, you can design courses for use by students without contact with the teacher in real time. Thus, the tools of the Moodle system are focused on the organization of interactive information interaction between the teacher and students in the conditions of distance learning. Additionally, as a means of interactive information interaction in the relationship "teacher - student" are also used email and Skype software.

Before proceeding to the design of the training course in the Moodle system, it is necessary to prepare materials in electronic form. Each discipline implies different types of classes, but there are invariant types of materials necessary to fill the electronic course:

1. Theoretical material on the discipline - a summary of lectures in electronic form, a textbook, a list of recommended literature on the discipline.

2. Practical tasks in the discipline - collections of practical and laboratory works.

3. Diagnostic block of the discipline - tasks for independent work, topics of control works, test task, project activities, bank of test tasks.

4. Methodological block of the discipline - instructions for working with the above materials.

In many ways, the training of sports metrology is associated with the development of a large number of examples related to the use of certain algorithms and algorithmic constructions. In the process of training, students receive points for completed tasks. During the entire period of study, the teacher is in the tutor mode, helping students in difficult situations on discipline issues.

To improve the quality and effectiveness of training in the subject of sports metrology in a distance format, it is necessary to use the main information forms:

– multimedia lectures;
– interactive questions;
– electronic individual consultations by e-mail or in instant messengers;
– video conferencing;
– laboratory workshops;
– webinars;
– e-learning materials;
– file sharing;
– independent work of students;
– group discussions in instant messengers;
– control works;
– testing.

The educational process of students in distance learning is more intensive. The continuity and systematic nature of independent educational work is important. It should be noted that learning through an electronic system is characterized by a lot of independent work, and the quality of obtaining knowledge depends on the self-organization of the student. The development and implementation of information and communication technologies for teaching, the use of distance education can increase motivation to study the subject, the professional level of the teacher, the level of students in educational work.

The most important element of the competence of the future specialist in physical culture and sports is the ability to select and use mathematical and information models in the educational and training process. Information and mathematical modeling is most effective if the following conditions:

● the content of the tasks corresponds to the professional orientation of the contingent of students;

● optimally selected software that allows you to build algorithms for solving

problems in an accessible form,

- continuity in the application of computer methods and applied tasks is observed.

You should know and be able to put into practice the basics of mathematical analysis and mathematical statistics. The basics laid down in the study of the course of sports metrology create a good basis for studying such disciplines as biomechanics, sports informatics, the theoretical foundations of the chosen sport.

Conclusion.

The use of interactive tools for learning within the disciplines with portable metrology shows its effectiveness, especially in situations where the direct educational process is limited or impossible. Systems of regular verification of the performance of tasks allow you to maintain the intensity of the educational process, the use of the approach of supporting learning on the model of the tutor allows you to avoid most of the problems with the motivation of students. It should be emphasized that the use of these tools allows you to more effectively teach students of a low level of training, leaving high-level students on a progressive trajectory of professional development. Further research may be related to the use of such systems to build a set of tools for training, as well as the creation of complexes of tasks to support these tools. Also, the development of the use of interactive tools can be associated with the deepening and automation of text and visual works of students.

References:

1. Liu Z. Y., Lomovtseva N., Korobeynikova E. Online Learning Platforms: Reconstructing Modern Higher Education // International Journal of Emerging Technologies in Learning. 2020. T. 15. № 13. pp. 4–21.

2. Smyk A. F., Tkacheva T. M., Portnov Y. A. New digital technologies of training in the transport education // IOP Conference Series: Materials Science and Engineering. 2020. T. 832. № 1. P. 012068. DOI: 10.1088/1757-899X/832/1/012068

3. Watanobe Y., Chowdhury I., Cortez R., Vazhenin A. Next-Generation Programming Learning Platform: Architecture and Challenges // SHS Web of Conferences. 2020. № 77. P. 01004. DOI: 10.1051/shsconf/20207701004.

4. Woods K. The Development and Design of an Interactive Digital Training Resource for Personal Tutors // Frontiers in Education. 2020. № 5. p. 100.

5. Allamuratov S.I., Uraimov S.R. Motor training of student youth in the process of training in specialized military-technical lyceums in conditions of hyperthermia //Herald pedagogiki. Nauka i Praktyka. – 2021. – T. 1. – №. 1.

6. Uraimov S. The interrelation of the block-modular system of motor fitness of young men in the lessons of pre-conscription military education and physical culture // Herald pedagogiki. Nauka i Praktyka. – 2021. – T. 1. – №. 1.