INFORMATION TECHNOLOGY IN PHYSICAL CULTURE AND SPORTS

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Abstract. The active introduction of technical training tools led to the rapid development of the process of information support, which for a long period existed on paper. There has been a trend of transition from traditional information support to information technology.

Keywords: information technology, information computer technology, computer equipment.

In the modern world, which is rapidly developing information, the informatization of education is of great importance. The leading world powers have developed a number of programs for the comprehensive development of the individual. The educational system is given increased attention. The process of formation of the information society is also taking place in the Russian Federation. Studies have shown that the rapid growth of the gross domestic product directly depends on the growth of the development of the population. One of the main tools in education, opening the way to a new world, is modern information technology. Developing a strategy for the use of these technologies in education is one of the key planning problems, both at the national and global levels - the way to improve the education system as a whole. That is why the informatization of education in the world and in Russia in particular is of great importance.

In the field of sports, there is a great interest among specialists in the transition from traditional means to the use of new information technologies, despite the difficulties encountered with scientific and technical organization.

Modern time dictates to teachers in a higher educational institution to improve traditional technologies and organize the educational process in a new way, to formulate the goals of education: to form communicative knowledge and skills to develop abilities for creative activity, tolerance, tolerance for other people's opinions, to develop students' independence, the ability to self-organize. This is helped by the use of modern information technologies, in particular information computer technologies (ICT), which are the accumulation of various information, its processing, storage, modeling, mathematical analysis, and forecasting. The society has tasks for its development, which allows solving the joint functioning of the electronic, information and software components, and they are integral parts of information computer technologies. ICT makes the educational process in universities effective, intensive, informative, in-depth and of high quality. The main directions of ICT in education: the use of computer technology (CT) as a means for learning, making the teaching process effective and high quality, the use of CT as a tool for learning, creative development of the student, the use of modern CT as a means of automating the processes of control, testing, correction and psychodiagnostics.

When holding competitions at the level of the Olympic Games, the use of IT ensures the rapid collection, transmission, storage and processing of a large amount of information. The Olympic Games used the transmission of data on the results of competitions via the Internet. In addition to working with large information arrays, personal computers are used for static processing of competition results. This is especially important for those sports in which the performance of an athlete is evaluated by expert judges. [1].

Today, there are various modern pedagogical technologies. The Internet makes it possible to solve various problems: in the process of learning, efficiency and quality increase, when searching for relevant information, its volume increases, the activity of perceived information increases, the communication skills of students develop, the student develops an information culture, processes information, forms the ability to engage in scientific work in the field physical culture.

In higher educational establishments, the method of practical mastering of knowledge is used in physical education classes. The teacher should choose teaching methods that would help the student to be as active as possible, to include motor and cognitive activity in the work. The use of new information technologies for teaching makes it possible to carry out: communication of knowledge, control (self-control) over the course of its assimilation, demonstration of illustrative material both in statics and in dynamics; comparison of the biomechanical characteristics of the motor action performed by the student and instructions for further education, depending on the discrepancies with the standard of performance (sample); storage of information in the form of data banks with class notes, planning documents, cards of outdoor games, lists of references, training and monitoring programs, term papers and theses, complexes of general developmental exercises; control, accounting and analysis of the dynamics of physical development of students; mathematical and statistical processing of research results [2].

In recent years, information technologies implemented using computer technology have been developed. They are called new information technologies of education. They are divided into the following main areas: 1 - universal information technologies (text editors, graphics packages, spreadsheet processors, database management systems, modeling systems, statistical packages); 2 - network technologies and telecommunications; 3 - computer training and control programs, computer textbooks, etc.; 4 - multimedia technologies: 5 - specialized software and methodological complexes (calculation and modeling programs for solving problems of the studied subject areas); 6 - programming in the educational process [1].

The physical preparation of students is of paramount importance. The results are shown in the process of training. Increasing the load produces strength, endurance, speed, coordination and many other qualities necessary to achieve the goal. To assess the state of students in physical education classes, teachers use their accumulated knowledge, the latest training methods, various simulators, modern equipment and scientific equipment, as well as the achievements of modern information technologies.

Many sports facilities where physical culture and sports are held are equipped with modern digital equipment: digital video, digital scoreboard and projection equipment, as well as various measuring systems. For example, to measure heart rate, pressure, various sensors are used, which helps to avoid accidents and find out what individual load should be given to students.

In equipped fitness rooms, students use computer gadgets for fitness: thermometers, pedometers (measure the time and number of steps taken), heart rate monitors (notify when there is low activity for a long time), pressure meter, calories burned using an LCD monitor - all this provides control of the health of the student. There are also innovations in the field of pools with a countercurrent function for training. This underwater device is based on the principle of relativity of motion, water flows towards the swimmer, which makes him expend some effort. Ski simulators and photo finish for athletics competitions. A very useful technical innovation, to assist any athlete, was developed by the Finnish company FAM SPORTS. This portable device is designed for low voltage currents and serves to simulate a specific neuromuscular reaction of the brain. The device almost instantly, within 15 seconds, assesses the condition of the athlete. It informs you of the moment when the stress of training can lead to fatigue and even potential injury. The developed device is called Check [3].

When evaluating the current stage of development of information technologies in physical culture and sports, we have to state that, despite the abundance of directions for their application and publications, these developments are of a private nature and are not widely used.

Literature

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