# Possibilities of using modern educational technologies in physical education

Veselov Aleksey Aleksandrovich Police lieutenant, Lecturer St. Petersburg University of the Russian Interior Ministry St. Petersburg, Russia Sharov Pavel Viktorovich Senior Lecturer St. Petersburg University of the Russian Interior Ministry St. Petersburg, Russia Veselova Anna Yuryevna Instructor-Methodist School of Olympic Reserve № 1, St. Petersburg, Russia

Abstract. This article examines the problems of educational technologies, the experience of pedagogical innovations. The definition of the concept of "Pedagogical technology" or "Teaching technology" is given, the main options for the application of various technologies are considered.

*Keywords*: *teaching technology, educational technology, physical education, training.* 

The problems of educational technologies, the vast experience of pedagogical innovations, author's schools and innovative teachers constantly require generalization and systematization. In UNESCO documents, teaching technology is considered as a systematic method of creating, applying and defining the entire educational process of teaching and assimilating knowledge, taking into account technical, human resources and their interaction. The technological effectiveness of the educational process is to make the educational process fully manageable. Teaching technology is a set of means and methods of reproducing theoretically grounded learning and upbringing processes that allow successfully implementing the set educational goals.

# 1. Application of problem learning technology

Problem-based learning is a type of developmental learning, which combines the systematic independent search activity of students with their assimilation of ready-made conclusions of science, and the system of methods is built taking into account goal-setting and the principle of problematicity.

Problem-based learning forms in students the need for individual physical development, physical and motor fitness, and also reflects the requests for physical self-improvement. However, the use of this technology will be effective only when students have a sufficiently high motivation to engage in physical education. In this case, the teacher will be able to form the need to create conditions for the independent acquisition of physical education and sports knowledge and skills, which, in turn, will contribute to the incentive to competently perform exercises and improve health.

The methodology of problem learning includes the process of acquiring knowledge, setting tasks, directly motor actions, as well as testing knowledge and skills by experience. The use of problem-based learning in physical education lessons will improve cognitive activity - perception, memory, thinking, and will also contribute to the development of creative thinking (Rusinova M.P., 2018).

The content of problem learning in physical education lessons can be different. For example, it can be associated with self-selection of information, comparison, generalization of certain facts, as well as self-development with the subsequent demonstration of individual physical exercises. Another example of using the technology of problem learning can be the creation of situations associated with contradictions in the practical activities of students, when the teacher reports insufficient initial data for the correct performance of the task. At the same time, students must put forward assumptions about the correct way of acting, test the assumptions in practice and draw a conclusion. Also, the technology of problem-based learning is the basis for organizing research activities, in particular, the technology of project-based learning (Rusinova M.P., 2018).

Problem-based learning, to a lesser extent than other types of learning, is applicable in the formation of practical skills; it takes a lot of time to assimilate the same amount of knowledge as compared to other types of training.

# 2. Application of project-based learning technology

I.Yu. Vodolagina (2016) notes that in the modern education system in the field of physical education, the technology of project training is also successfully used. When using this technology, lessons are planned in such a way that students, using their own research and observations, establish causal relationships, learn patterns, draw conclusions and consciously make decisions about adherence to a healthy lifestyle.

Projects in physical education lessons are projects to study the effects of physical education on the human body, to study the history of sports, prepare and conduct competitions and sports events, draw up an individual training plan, form a sports self-improvement program,

etc. Project-based learning technology makes the learning process fun. Students independently collect information on the research topic, analyze the need to perform a specific set of physical exercises for specific purposes. Some projects are integrated, covering the content of other academic subjects. When developing their own project, students develop knowledge and skills in applying methods of maintaining health and physical improvement. (Davydova I.V.)

# 3. Application of technology of using game methods in teaching

The game method is used in the process of physical education for the complex improvement of movements during their initial learning, to improve physical qualities, because the game method contains favorable prerequisites for the development of dexterity, strength, speed, endurance. In training using a game form, exercises that are of a competitive nature are introduced into a lesson or training session. The form of play includes preparatory exercises, auxiliary games and exercises where elements of rivalry are present. Supporting games include: simple, difficult, transitional and team games. Exercises performed in a playful way - outdoor games, play tasks, the use of various shells, stands, etc., differ in the depth and versatility of the impact on the physical qualities of those involved. Such classes increase interest in sports and physical education, stimulate the process of mastering the technique of individual elements of physical exercises, contribute to the desire to overcome difficulties in order to solve the tasks assigned to the students. (Toriev, A. Sh.).

Changing game situations forces you to instantly respond to the actions of partners, develop inner speech, logic, memory. The emotional sphere is enriched with satisfaction from muscle work, from the possibility of communication in a collective game, from the joint achievement of a jointly set goal. Game activity is characterized by creative active motor actions, which are limited by rules (generally accepted or established) and are aimed at overcoming various difficulties in achieving the set goal (winning, mastering certain techniques) (Vodolagina I.Yu., 2016).

When implementing personality-oriented technologies in teaching a subject, it is possible to design such sports and play situations that require mobilization of will, motivation in exercising one's own strengths; situations of choice, sports risk, making your own contribution to the overall result; give priority to tasks requiring competitive, heuristic activity, manifestation of independence (Vodolagina I.Yu., 2016).

The play method, by virtue of all its inherent features, evokes a deep emotional response and allows you to fully satisfy the motor needs of those who train. Thus, it contributes to the creation of a positive emotional background in the classroom and the emergence of a sense of satisfaction, which in turn creates a positive attitude of children towards physical exercises. (Toriev, A. Sh.).

### 4. Application of information and communication technologies

Despite the fact that computer technologies have long been widely used in the educational process of a modern school, the use of interactive means in physical education is, as a rule, of a private nature: the formation of databases of schoolchildren, monitoring of their physical fitness and physical development, and are not widespread in school practice (Shevchenko A.V., 2018). However, it should be noted that with a skillful combination of the traditional training system and new informational capabilities, the physical education lesson will only become more interesting and attractive for students.

In some educational schools, an examination in physical education has been introduced, in particular, for those children who, for health reasons, are exempted from attending lessons. Conducting classes for such children in the form of computer tests and electronic presentations allows you to generate interest in the subject under study. The purpose of the electronic presentation is to update knowledge; accompaniment of the teacher's explanation of new material; consolidation of knowledge; systematization and generalization of knowledge. In addition, electronic presentations have a significant impact on learning performance, since both visual and auditory channels of perception are simultaneously involved in schoolchildren. Using testing computer programs at physical education lessons, it is quite easy to objectively assess the theoretical knowledge of students: the program itself will give many examples, count the correct answers, and objectively evaluate. In addition, in this form, self-learning is possible, which proceeds three times faster than with the collective traditional analysis of test results (Shevchenko A.V., 2018).

In addition, at physical education lessons in primary school, it is recommended to carry out general developmental exercises of various orientations, using musical accompaniment. In this case, special attention should be paid to special exercises for the formation of correct posture and correction of flat feet. In addition, it is very important to create a positive-emotional background, which, as a rule, is formed in schoolchildren even before the start of the lesson and should be maintained throughout its entire duration, and then computer technologies come to the rescue: the inclusion of videos, musical compositions (Shevchenko A.V., 2018).

The use of interactive whiteboards or multimedia equipment in physical education lessons ensures the recreation of real technique of movements, allows you to study any technique in more detail, develops logical and imaginative thinking (Rusinova M.P., 2018).

# 5. Application of health-saving technologies

Many practicing teachers assign the most important role to health-preserving educational technologies, the purpose of which is the formation of the necessary knowledge, skills and abilities of a healthy lifestyle, the development of motor abilities.

S.S. Salionov (2020) in his article identifies three basic principles of building a lesson from the standpoint of health-saving technologies:

Principle 1. Correct organization of the lesson. First, it takes into account all the criteria of health preservation at a rational level. Secondly, the main goal of the teacher is to teach each student to request the necessary information and get the required answer.

And for this it is necessary to form his interest, motivation to learn and learn, an awareness of what he wants to know, a willingness and ability to formulate a question to the teacher. The formulation of the question is an indicator of the student's involvement in the problem under discussion and, therefore, a good level of his performance; manifestation and training of cognitive activity; an indicator of adequately developed communication skills (Salionov S.S., 2020).

Principle 2. Taking into account the area of working capacity of students. It has been experimentally proved that the biorhythmological optimum of performance in schoolchildren has its peaks and falls both during the school day and on different days of the school week. Performance depends on the age characteristics of children.

Principle 3. Distribution of the intensity of mental activity. When organizing a lesson from the point of view of health preservation, three main stages are distinguished, which are characterized by their duration, volume of load and characteristic types of activity.

A lesson organized on the basis of the principles of health preservation should not lead to the fact that students graduate with strong and clearly expressed forms of fatigue (Salionov S.S., 2020).

In addition, one of the components of health-preserving technologies is the creation and maintenance of a favorable psychological climate in the classroom. The charge of positive emotions received by the students speaks of the positive impact of the school on their health. And vice versa: the presence of stress, chronic psychophysical stress, the production of negative emotions, etc. manifestations, both on the part of the teacher and the students, indicate the predominance of health-destroying tendencies in the lesson (Vodolagina I.Yu., 2016).

# 6. The results of the use of modern educational technologies in physical education

lessons

The result of the use of modern educational technologies in physical education lessons is an increase in the quality of education, the formation of new forms of activity among students, contributing to self-development and self-realization, an expansion of knowledge in the field of physical education and sports.

In a study conducted by I.Yu. Vodolagina (2016), it is shown that after three years of work on the introduction of modern educational technologies into the educational process in physical education, there is an increase in students' interest: in physical education lessons by 20%; an increase in academic performance by 7%; the participation of students in design and research activities increased by 30%; growth of students' achievements, prizes in competitions and competitions increased by 5%. the level of awareness increased.

The use of general pedagogical innovative technologies by a physical education teacher in his professional activity allows to motivate students' interest in physical education lessons, to improve the quality of education, academic performance, develops the creative, research abilities of children, to demonstrate high achievements in participation in competitions, competitions of various levels (Vodolagina I.Yu., 2016).

#### Conclusion

- Modern educational technologies are focused on individualization and variability of the educational process, which makes it possible to ensure a high quality of education for schoolchildren. Today, there are several such technologies: problem-based learning technology, multi-level learning, project-based learning technology, research teaching method, technology of using game methods in teaching, learning technology in collaboration, information and communication technologies, health-saving technologies.
- 2. Most of modern educational technologies can be successfully applied in physical education lessons. So, the technology of problem-based learning allows you to develop and improve cognitive abilities. The technology of multilevel training is used to individualize the loads, taking into account the level of physical fitness. The technology of project-based teaching is implemented on the basis of the technology of problembased teaching and allows to increase the interest of students in physical education and the level of their theoretical knowledge by preparing a variety of projects. The technology of using game methods in teaching is perhaps the most widespread in physical education lessons - many tasks can be solved in the game, including increasing interest in the lesson, mastering the necessary skills in a game form, enriching the emotional sphere. Information and communication technologies make it possible to facilitate the process of teaching technically complex sports - this teaching method is visual and very effective. Health-saving technologies are the basis of the educational process in physical education: the priority is the health of students, physical and mental; the principles of constructing a lesson based on health-saving technology have been developed.
- 3. The use of modern educational technologies in physical education lessons contributes to the increase of students' interest in the subject and the improvement of attendance and

academic performance, the development of thinking, memory, attention, creative abilities, the improvement of the quality of teaching - better mastering of the technique of motor actions and an increase in the level of theoretical knowledge in the field of physical education and sports.

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