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MODERN COGNITIVE AND COMMUNICATIVE MEANS AND TECHNOLOGIES IN THE LEARNING PROCESS

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Annotation

The article examines the main cognitive and communicative means and technologies associated with the use of modern approaches in the learning process, describes the use and effectiveness of computer and game learning technologies.

Key words: modern teaching technologies, cognitive and communicative means and technologies, computer and game technologies, the advantages of game learning technologies.

Currently, pedagogical technologies take into account many factors that affect the learning process, in connection with which the role of the teacher in this process is changing. In the world of pedagogical science at the moment, it is relevant in the learning process that cognitive and communicative technologies are being actively introduced, because a communicative directed lesson involves the formation of a system of certain knowledge, abilities and skills, and provides an opportunity for the student to form specific competencies.

An analysis of the development directions of cognitive and communication technologies and the experience of their application for educational purposes both in our country and abroad allows us to determine the main directions of using their capabilities in the following areas [2]:

 organization of various types of educational activities to work with educational information based on the use of multimedia technology, telecommunication network resources, technology "Virtual reality";

- the implementation of imitation and modeling of any describable processes to create training simulators that bring the student's activity as close as possible to reality;

- development of virtual worlds, which act in relation to the real world as schemes or models that stimulate the dynamics of the studied processes or patterns with subsequent analysis by the student and identification of trends in their development;

– automation of the process of establishing the level of knowledge, abilities and skills in the field of implementation of the main types of educational activities corresponding to the age category of students, using information and communication technologies.

The use of computer and pedagogical technologies makes it possible to enhance the motivation of learning due not only to the novelty of working with a computer, which in itself often contributes to an increase in interest in learning, but also the ability to regulate the presentation of problems by difficulty, encouraging correct decisions, without resorting to moralizing and censure in the field of implementation of the main types of educational activities corresponding to the age category of students, using information and communication technologies[1].

Working on a computer, the student gets the opportunity to bring the solution of any educational problem to the end, since he is provided with the necessary help, and if the most effective training systems are used, then the solution is explained to him, he can discuss its optimality and identify the most rational solutions.

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The computer can influence the motivation of students, revealing the practical significance of the math material being studied. For example, modeling the solution to a problem under different conditions allows the student to see the significance of expressions with variables.

In many curricula, ambiguous ways of solving the problem are laid down, thereby providing students with the opportunity to show originality by setting an interesting problem and try to build its model. All this contributes to the formation of a positive attitude towards learning. However, care must be taken to ensure that fun does not become the prevailing factor in computer use and does not overshadow learning goals.

Cognitive and communicative means and technologies in school are not only the use of technical means in the classroom, but also a new approach to the learning process, including the forms and methods of teaching, focused on the development of the intellectual potential of the student.

The use of pedagogical technologies in the educational process allows you to individualize and differentiate the learning process, realizing an interactive dialogue, providing an opportunity for an independent choice of the mode of educational activity. Game technologies are an integral part of educational technologies.

Currently, gaming technologies are of great interest to teachers. Game technology is the type of activity that develops in situations aimed at assimilating social experience, in which self-management of behavior is formed and then improved. Most games have the following features:

- free developmental activity, which is undertaken only at the request of the student, for the sake of getting pleasure from the process of activity itself, and not just from the result;

- creative, mostly activities based on improvisation, rather active;

– emotionally upbeat activity, there is rivalry, competition, competition.

Educational games are a fairly extensive group of methods and techniques for the formation of the learning process. The main difference between a pedagogical game and a game in general is that the first has a characteristic feature - it clearly sets the goal of learning and the corresponding pedagogical result, which can be substantiated, highlighted in a specific form and characterized by an educational and cognitive orientation.

Currently, in the educational process, teachers often turn to play activities, to activate and intensify the educational process, play is used in the following cases:

– as an amateur technology in the development of concepts, topics and sections of the academic subject;

- as building blocks of a broader technology;

- in the form of a lesson or part of it (introduction, explanation, consolidation, exercise, control);

– as technologies of extracurricular work (collective creative affairs).

The role and place of play in the educational process depends on the teacher. The specificity of the gaming technology is determined by the gaming environment: depending on whether it is a game with or without objects, tabletop, indoor, outdoor, on the ground, computer, with different vehicles, etc.

However, the effectiveness of the learning process using gaming technologies is possible only if the necessary conditions are created for this. Their absence can lead to undesirable consequences in the student's personal development: alienation of students from each other, limitation of their mobility, deterioration of vision, fatigue, etc.

The implementation of game techniques and situations in the lesson form of classes occurs in the following main areas:

– a didactic goal is set for students in the form of a game task; educational activity is subject to the rules of the game;

- educational material is used as its means, an element of competition is introduced into educational activity, which translates a didactic task into a game one;

- The successful completion of the didactic task is associated with the game result [3]. The peculiarities of the process of teaching schoolchildren, its goals, correlated with the functions and basic requirements for the use of computer technologies, determine the conditions under which these technologies will significantly increase the effectiveness of the educational process. When using gaming technologies in the classroom, the following conditions must be met:

- compliance of the game with the educational goals of the lesson;
- availability for students of a given age;
- Moderation in the use of games in the classroom.

These conditions are necessary when using gaming technologies at school, otherwise their effectiveness is significantly reduced. From a didactic point of view, taking into account the conditions and their interactions is necessary to create cognitive-communicative, meaningful and procedural components of game technology.

Literature

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