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THE USE OF EDUCATIONAL COMPUTER GAMES IN THE EDUCATIONAL PROCESS

This article discusses ways to improve the effectiveness of lessons using educational computer games. Classifications of educational games are given. The changes taking place in modern society require accelerated improvement of the educational space, the definition of educational goals that take into account state, social and personal needs and interests. In this regard, ensuring the developing potential of the new educational standard becomes a priority. The state standard of the new generation is based on a system-activity approach, which involves the education and development of personality qualities that meet the requirements of the information society.

Key words*. Training, educational games, teaching methods.*

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ОКУТУП-ҮЙРӨТҮҮЧҮ КОМПЬЮТЕРДИК ОЮНДАРДЫ БИЛИМ БЕРҮҮ ПРОЦЕССИНДЕ КОЛДОНУУ

Макалада окутуп-үйрөтүүчү компьютердик оюндарды колдонуу менен сабактардын натыйжалуулугун жогорулатуу жолдору каралат. Окутуп-үйрөтүү оюндарынын классификациясы берилет. Азыркы коомдо болуп жаткан өзгөрүүлөр билим берүү мейкиндигин тездетип өркүндөтүүнү, мамлекеттик, социалдык жана жеке муктаждыктарды жана кызыкчылыктарды эске алган билим берүү максаттарын аныктоону талап кылат. Ушуга байланыштуу, жаңы билим берүү стандартынын өнүгүү потенциалын камсыз кылуу артыкчылыктуу багыт болуп калат. Жаңы муундагы мамлекеттик стандарттын негизинде маалыматтык коомдун талаптарына жооп берген инсандык сапаттарды тарбиялоону жана өнүктүрүүнү камтыган системалык-иштиктүү мамиле жатат.

Өзөктүү сөздөр: *билим берүү, окутуп-үйрөтүү оюндары, компьютердик оюндар, окутуу методикасы.*

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ПРИМЕНЕНИЕ ОБУЧАЮЩИХ КОМПЬЮТЕРНЫХ ИГР В ОБРАЗОВАТЕЛЬНОМ ПРОЦЕССЕ

В данной статье рассмотрены способы повышения эффективности уроков с использованием образовательных компьютерных игр. Даны классификации обучающих игр. Перемены, происходящие в современном обществе, требуют ускоренного совершенствования

образовательного пространства, определения целей образования, учитывающих государственные, социальные и личностные потребности и интересы. В связи с этим приоритетным направлением становится обеспечение развивающего потенциала нового образовательного стандарта. В основе государственного стандарта нового поколения лежит системно-деятельностный подход, который предполагает воспитание и развитие качеств личности, отвечающих требованиям информационного общества.

***Ключевые слова**: образование, образовательные игры, компьютерные игры, методика обучения.*

In pedagogy, gaming, educational and work activities are distinguished as the main types of activities.

In order to improve, activate the learning process, make it more effective, rich, creative and exciting, at different stages of my lessons I use active learning methods, which include game techniques.

People have been using the game as a method of teaching, transferring the experience of older generations to younger ones since ancient times.

In world pedagogy, the game is considered as a competition or competition between players whose actions are limited by certain conditions (rules) and are aimed at achieving a certain goal (winning, winning, prize, good score).

Game technologies differ from other pedagogical technologies in that the game:

• a familiar and favorite form of activity for a person of any age;

• causes high emotional and physical stress in students, difficulties, obstacles, psychological barriers are much easier to overcome in the game;

• promotes the use of various methods of motivation: communication motives, moral motives, cognitive motives

• requires and causes initiative, perseverance, creativity, imagination, aspiration in participants;

• allows you to solve issues of transfer of knowledge, skills, abilities; promotes the practical application of skills and abilities acquired in the lesson;

• promotes the assimilation of educational material by students, expanding their horizons through the use of additional sources;

• the predominantly collective, group form of activity, which is based on the competitive aspect, develops students' communicative qualities, the ability to work in pairs and teams.

Game technologies increase the efficiency of the educational process, reduce the time for studying educational material, turn the learning process into a creative and exciting activity. Unlike games in general, a pedagogical game has an essential feature — a clearly defined learning goal and a corresponding pedagogical result that can be justified, highlighted explicitly and characterized by an educational and cognitive orientation.

It is important to use any computer educational or educational game at the right time, at the right stage of the lesson. When selecting computer games, the following principles should be taken into account:

1) humanistic;
2) functionality;
3) motivational attribution;
4) emotional involvement;
5) controllability;
6) transparency;
7) the conjugacy of action and result.

The creation of educational computer games (hereinafter referred to as OKI) is one of the important directions in the computerization of learning. The combination of emotional attractiveness, which is inherent in the game, and audiovisual, computing, information and other capabilities of computer technology carries a great didactic potential, which can and should be realized in school practice.

According to their didactic orientation, the most common and effective were games designed to monitor and evaluate students' knowledge and skills. In addition to them, there are a number of games used when learning new material, as well as consolidating what has been passed. Certain successes have been achieved in teaching preschoolers and younger schoolchildren: there are, for example, a number of training programs that allow children of this age to familiarize themselves with the concept of a computer, a computer program, keyboard mastering, etc. A lot of computer games have also been created, which are successfully used to form reading, writing and counting skills.

Based on the above, it can be argued that the introduction of educational games into the educational process is one of the most important tasks and requires serious psychological, pedagogical and methodological study.

Now let's define what a computer game is.

A computer game is a type of gaming activity, possibly with the use of multimedia technologies, as well as virtual or, in other words, alternative reality technology.

A learning computer game is a form of educational activity that simulates certain practical situations, which is one of the means of activating the educational process and promotes mental development. OKI by all signs corresponds to the definition of a didactic game, which it essentially is, only organized at a higher level

It is well known that uncontrolled computer gaming activity leads to gaming, computer and Internet addiction. There are no effective methods of treating this kind of addiction in the present era. According to experts, these types of addiction are treated much more difficult than tobacco, alcohol and even drug addiction.

In the case of the competent use of sports and educational computer games under the guidance of a teacher, dependence does not occur. There are many reasons for this, let's highlight the main ones:

• Firstly, in the educational process, games are used strictly regulated, taking into account age and individual characteristics.

• Secondly, the area and role of the game in the lesson are strictly verified.

• Thirdly, if computer gaming activity is combined with practical, real activity (duplicated, for example, by the process of additional awareness of gaming activity - analysis of gaming situations, etc.), then computer gaming activity does not lead to addiction.

It follows that if a child is actively engaged in sports, for example, football or chess, then engaging a computer game under the supervision of a teacher or parents as a means of professional development does not lead to undesirable consequences.

A child who learns the joy of OKI under the guidance of a teacher will also choose computer games correctly at home and intelligently allocate time for them. The computer provides unlimited opportunities to organize training in a playful way. So, for example, when studying a rather complex section of computer science - programming, it is possible to give a minimum amount of knowledge on the programming language being studied, providing reference materials and samples, to put before students the problem of creating the simplest computer game or vital program. Another approach when studying the section "Programming" is to present the learning process itself in a playful way. For example:

• updating the basic knowledge should be carried out with the help of automated

computer programs that mark and analyze errors;

• use puzzles when compiling listings;

• make mosaics when studying reference material;

• apply training and test tasks programmed in a playful way;

• assign the compilation of questions to test the knowledge of another student, followed by an exchange of questions;

• create a task with writing plans for documentaries, cartoons, presentations about programming in the language being studied;

• create a task with the preparation of presentations about programming in the language being studied, etc.

When drawing up creative tasks, it is necessary to take into account the inclinations and capabilities of specific students. It is not always possible to quickly reveal creative inclinations. In such cases, a smooth, gradual transition from reproductive tasks to tasks with elements of creativity is necessary, and only then to full-fledged creative tasks.

The analysis of educational game programs shows that students are more interested in the case when the training program acts not so much as a strictly teacher evaluating every step of his student, but as a friendly and non-intrusive assistant.

In an educational computer game, you can acquire and consolidate knowledge, skills and abilities through activities according to the specified rules. They need to distinguish two components: educational and gaming. In the lesson, one of the components may prevail, i.e. there may be a game during the training and learning during the game.

If the learning component prevails, then the game provides ample opportunities related to the perception of knowledge, their consolidation, and application. In the case of the predominance of the game component, the game can be used as a means for clarity and increasing motivation to learn.

All educational games can be divided into three types:

1. Training: fixing and controlling, practicing having skills in a child.

2. Learning games are games that can help a student acquire new knowledge, skills and abilities.

3. Educational games - games that contribute to the identification and development of various abilities and skills of students.

4. Combined games - games in which all the above described types are intertwined with each other.

Before using the game during the lesson, it is necessary to determine what kind of game it belongs to, because this can determine what place it will take in the lesson, where it will be more appropriate and more effective.

In the traditional lesson of learning new material, there are four main stages:

1. Updating knowledge.

2. Familiarization with new material.

3. Consolidation of educational material.

4. Control and accounting of knowledge.

Knowing the structure and levels of a computer game, you can fully realize its capabilities in the lesson.

Any computer game used by the teacher in the lesson must first of all be analyzed on the following issues:

1. At what stage of the lesson is this game used?

2. What are the learning goals underlying the game?

3. Which of the classical learning methods can the game support?

4. Does the material contained in the game meet the requirements of the content and adequacy of the material, previously acquired knowledge, skills and abilities?

5. Does the game provide feedback from the learner to the computer and the ability to adapt the acquired knowledge?

6. Are the psychophysiological characteristics of the student taken into account?

7. Do the management methods in the game correspond to the individualization of learning?

Such an analysis will allow the teacher to effectively and reasonably use computer learning games in the classroom, and not only by a computer science teacher, but also by a teacher of any other subject.

However, do not forget about the psychological and pedagogical problems of computer training, including computer games for educational purposes.

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