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Using Educational Electronic Software In The Educational Process And Their Importance

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Abstract. Educational software and the possibilities of using it in practice provide an opportunity to go one step further in the educational process and increase the effectiveness of teaching. The information technology of education refers to special technical media (computer, audio, film, video). all technologies used are understood. In the period when computers began to be widely used in education, the term "new information technologies of teaching" appeared, in general, any pedagogical technology is information technology, because the technological basis of education is information and its movement, therefore, from the computer it is more appropriate to call the teaching technology used computer technology.

Keywords: Computer, electronic textbook, internet, educational program, information technology, pedagogical technology.

ANALYSIS OF TEACHING SOFTWARE AND THE POSSIBILITIES OF THEIR USE IN PRACTICE

Educational platforms - platforms for use in the teaching process, make communication between teachers and students more effective, and lessons, tasks, tests and materials are presented online, students can freely access information and improve their mastery. are online platforms that use technology to make the learning process more efficient for teachers and students.

By these platforms, classes, tasks, tests, and diger educational materials are offered online.

Teachers can create and edit their lessons through the platform, classes are presented in a video game, in the form of slides, texts, graphics or animations, which, at the same time, teachers will have the opportunity to plan the teaching process, organize lessons and tasks through a schedule, carry out an electronic assessment process and monitor students.

Students, on the other hand, will be able to access classes through platforms, read and download lesson materials, solve tasks, attend tests and view their grades. They may be provided with additional instruction, reading materials, and additional information in classes,

Educational platforms provide an opportunity for students to present educational materials from time to time with modernity, to facilitate learning, to strengthen communication, to ensure that students learn in their own right. Their effectiveness makes it possible for a wide variety of teachers and students to advise, assist, and facilitate bonding.



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Educational platforms offer students several opportunities:

➤ **Time-to-modernity-** learning materials, lessons and assignments are provided online through platforms, which makes the learning process faster for students than the old method and students can access learning materials at their chosen time and adjust their study schedule.

➤ **Facilitating learning** - platforms allow the presentation of educational materials in an interactive form, which facilitates students' learning through text, slides, videos, audio materials and graphics, and also allows students to learn through tests, tests and activities. strengthens.

➤ **Enhancing communication** - educational platforms provide communication tools for students to connect with teachers, other students, and loved ones, allowing students to exchange ideas, ask for advice, and collaborate on group work.

➤ **Personalized learning** - platforms allow students to enhance individualized learning tailored to their own learning paths and allow students to define learning based on their group, mastery level and interests possible, allowing them to create personalized study plans and referrals.

➤ **Advice and support** - platforms provide opportunities for teachers to work with students in organizations, advise, respond and help, which allows to strengthen the communication between teachers and students and to use it in student learning.

Educational platforms help to improve the effectiveness of teaching and make the learning process easier for students, they strengthen the connection between teachers and students, and they provide an opportunity to increase the mastery and mastery of students.

Interactive educational tools make the learning process more convenient for teachers and provide a visual and interactive service to the learning process. These tools can include the following.

Interactive whiteboards are a convenient tool for teachers, which allows them to post lesson materials, instructions and notes. can attract attention.

Electronic tables are interactive tools for teachers that are used instead of tables. Uuar provides convenient opportunities for organizing the lesson process, creating and completing tasks, and creating lists of grades and results.

Tablets are mobile interactive tools for teachers to view course materials, enter new information, complete lessons, and interact with students.

Projectors allow teachers to project lesson material on a large screen, making it easier to teach slides, videos, graphics and other analytical materials.

Modern computers - Teachers use other computers, for example, to prepare interactive tests, edit information on educational platforms, create lessons and tasks, view electronic materials and have the opportunity to use other educational tools.

These interactive educational tools make the learning process more convenient for teachers and help to improve student learning, strengthen the relationship between teachers and students, visualize the process of explanation and provide an opportunity to conduct the learning process interactively.

Databases are essential for teachers and program administrators in the learning process, helping to evaluate lessons and teaching effectiveness, while data analytics help teachers monitor student achievement, information sharing, and o provides an opportunity to improve teaching.

Databases and analytics are an important part of education and provide valuable opportunities for educators and program administrators.



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Database - allows program administrators and teachers to store, manage and study important information in the teaching process, including information about students, curricula, lessons schedule, test results, tasks and other data are stored, and teachers can use this data to fully monitor the learning process, evaluate student progress and improve learning (1.1.6- picture).

Data Analytics - Enables teachers to improve student achievement, information sharing, and instruction. Through data analytics, teachers can monitor student grades, test scores, academic achievement, and learning outcomes. will be able to analyze their results, and this analysis will help teachers to identify the shortcomings of students, improve their performance and monitor the learning process.

Databases and analytics enable teachers to monitor student learning and improve learning by analyzing data, monitoring data sharing, and evaluating learning progress.

Mobile applications allow teachers and students to use mobile devices for teaching, teachers will have the opportunity to use mobile applications to create lesson materials, teach and evaluate students.

Mobile apps and devices allow teachers and students to access the learning process from mobile devices and provide the following opportunities.

Mobile apps- Mobile apps are mobile apps for teachers to create learning materials, build analysis, organize tests and teach students, these apps allow teachers to collect, edit and facilitate learning of teaching materials.

Mobile devices allow teachers and students to use mobile devices for learning, smartphones, tablets, smart watches and other mobile devices allow teachers to organize the learning process in a mobile state, that is, they can access the teaching materials. winter, will have mobile opportunities to solve tasks, take tests, see their grades and help students.

These mobile applications and devices enable teachers and students to mobile the learning process and help teachers to collect and edit learning materials on the go, and create opportunities for students to teach and assess.

CHARACTERISTICS OF COMPUTER TECHNOLOGY METHODOLOGY AND THEIR PLACE IN THE EDUCATIONAL PROCESS

Information technology of education means all technologies that use special technical media (computer, audio, film, video). In the period when computers began to be widely used in education, the term "new information technologies of teaching" appeared, in general, any pedagogical technology is information technology, because the technological basis of education is information and its movement, therefore, from the computer it is more appropriate to call the teaching technology used computer technology.

Computer technology develops the ideas of programmed teaching, opens completely new, unexplored technological options of teaching related to the possibilities of modern computers and telecommunications, computer technology of teaching is the preparation of information for the learner. and is a transmission process that is computerized and computerized technology can be implemented in the following three ways.

Option 1. "As an input technology" (use of computer training on a single subject, for separate sections of didactic issues).

Option 2. Among the technologies used, it is the most important, as an identifier.



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Option 3. As a monotechnology (if teaching, all types of diagnosis, management of the educational process, including monitoring, is completely based on the use of a computer).

The computer technology has the following classification parameters.

1. According to the level of application: general pedagogical.
2. According to the mastery level: associative-reflective.
3. According to the description of the content: penetrating, suitable for any content.
4. According to the type of cognitive activity management: computerized.
5. According to organizational forms: individual + small group system.
6. On the approach to the student: cooperation.
7. In the direction of modernization: efficiency of organization and management.
8. By category of learners: all categories.

Computer technology focuses on the following aims.

- formation of trainings for working with information, development of communication skills;
- preparation of information society personality;
- give as much learning material as the student learns;
- research, formation of optimal decision-making skills.

The conceptual foundations of computer technology are as follows.

1. Teaching is the student's interaction with the computer.
2. The principle of flexibility: adaptation of the computer to the individual characteristics of the student.
3. Communicative nature of teaching.
4. Controllability: the teacher can make adjustments to the learning process at any time.
5. Student's communication with the computer can be done in all forms: subject - object, subject - subject, object - subject.
6. Optimum compatibility of individual and group work.
7. Unlimited learning: content, interpretation and applications can be as large as desired.

The characteristics of the computer technology methodology and the computer tools of teaching are called interactive, because they have the ability to "respond" to the activities of the pedagogue and the student, to "communicate" with them, which is the main feature of the computer teaching methodology. and using the computer and all its possibilities in the educational process, choosing a strategy that allows preventing losses affecting the quality of the pedagogical process, is a serious, multifaceted problem. Therefore, before designing the teaching process on the basis of computer, the teacher should know the methodology of teaching on the basis of computer.

The functions of the computer in teaching are as follows.

- **technical-pedagogical** (teaching and management programs, diagnostic, modeling, expert, communicative, consulting, logical);
- **didactic** - the computer as a trainer, tutor, assistant, as a device for modeling specific situations, the computer as a means of accelerating educational activity, optimizing the teacher's activity; the computer is implemented as a tool that performs the following functions.



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- **quick updating of educational information** is considered as a means of obtaining rapid information about individual characteristics of students, evaluating, controlling, correcting, activating and stimulating their activity.

In such a situation, the task of pedagogy is to determine and provide the conditions under which the specified functions are performed. , forms and methods provide interrelation, connection.

- connecting the computer with the teacher's word;
- didactic structure of computer training;
- motivational support of computer training;
- combination of computer and technical means of teaching.

The purpose of such a separation is to find a didactically based, rational match between the logic of computer work and the logic of educational activities.

PRINCIPLES OF CREATING EDUCATIONAL SOFTWARE AND THEIR CONTENT

Educational electronic softwares are more effective than ordinary textbooks in the educational process, engaging the ways of human brain perception (sound, emotional memory, computer tests) and serving to maximally ease the processes of understanding and memorizing the most basic concepts and examples. should do.

In the initial stage of education, the necessary content should be prepared to help students learn through software, and this content should include the general purpose of teaching, the objective of the lesson, the topics, the components of the software, and the expectations of the students. the results should be presented.

When designing software, students' level and prior learning experience should be taken into account, so that students can use learning methods that are suitable for them, with tests and practical exercises, interactive tasks and other software tools. work helps to increase student motivation.

In order to solve problems, students can learn from problems and change instead of machines. They can collaborate with teachers and students to help solve problems by updating content software. including using interactive modules, using videos or guides to problems, and using other tools to solve questions.

The content of the software should be used for students to further strengthen their knowledge and skills, to improve the topics taught in the lesson, to improve skills, and to provide the opportunity to use additional materials and applications, and the software should be used by students for independent learning. by encouraging learning and empowering them to strengthen their practice.

These content principles are important only in the creation of instructional software, which can be modified based on the specific requirements and needs of each student group, thus supporting student development in order to make the learning process effective and supportive. It is very important to use supportive and motivational software.

Educational software helps with practice classes in special classrooms.

- it is possible to use computer support in solving various problems and thus save time;
- teachers can be given training in the form of independent work on computers;
- it is possible for teachers to quickly and effectively assess students' knowledge with the help of a computer, manage the complexity of control work;



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E-learning software also makes it convenient for teachers.

- more time is devoted to explaining the main concepts and ideas in lectures and practical sessions;
- complex control tasks are checked using a computer;
- determines the ratio of assignments to be completed in the classroom and at home;

Based on the above, it is recommended to follow the following principles when creating educational electronic software.

The principle of quantization is that the educational material should be divided into sections (modules) that are small in size, but have a whole structure.

The principle of completeness - each created section (module) consists of the following elements: a theoretical part, structured control questions for testing theoretical knowledge, tests, tasks for independent solving and exercises aimed at learning practical skills and should consist of historical commentary.

The principle of visibility - in each section (module) new concepts, ideas and methods should consist of a sequence of small-sized texts that make it easy to understand and remember.

The principle of branching - each section (module) should be interconnected with other sections through hypertext links in such a way that the user has the opportunity to freely choose to move to other sections at any time, and the principle of branching is used in the studied subject. does not limit the materials of the educational subject, but envisages the gradual mastering of science.

The principle of control - students should be able to independently control the exchange of screen frames, display any topic or information, concepts, ideas, illustration materials and multimedia on the screen, students should be able to use their knowledge and vision opportunities will be created for them to test their skills by answering control questions and tests and performing practical exercises.

The principle of adaptability - the teacher should ensure that electronic methodological support adapts to specific user needs during the educational process, the depth and complexity of the studied material and practicality depending on the future educational stage of the learner. it should create an opportunity to change its orientation, users should be able to create additional illustration materials according to their needs, interpret the studied concepts graphically and geometrically.

The principle of computer support - in this principle, learners should use the computer to look at and perform tasks and problems that encourage attention to the essence of the learning material at any time during the learning process, the computer can not only perform complex switching operations, various it is necessary to make various calculations and graphs, draw pictures and schemes, but also to perform operations of various complex levels, it is necessary to check the previously learned and obtained results not only at the stage of answering, but also in optional situations.

The principle of flexibility - allows the teacher to expand and supplement electronic software with new sections and topics, science and technology innovations, and electronic libraries in special and separate subjects or learners, (according to the specialty and course he is studying) should form private electronic libraries of teachers or researchers.

**USING EDUCATIONAL ELECTRONIC SOFTWARE IN THE EDUCATIONAL PROCESS
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When the teacher presents educational materials in the educational part of the electronic methodical support, it is necessary to pay special attention to the level of understanding by the students, the provided educational materials are simple, convenient for learners, illustrative and explanatory information should be recommended for better mastering, as well as additional opportunities should be created in reference to the necessary definitions, key phrases, and keywords in the educational materials.

The creation of educational electronic software is a complex process that involves a number of specialists in their creation, such as science teachers, psychologists, programmers, designers, computer graphics masters, as well as It is appropriate to use the achievements of modern pedagogical technologies in the creation of stimulating electronic software educational materials.

Educational electronic software programs serve to develop the independent training skills of students, to connect the acquired knowledge with practice, to connect education and training, and to strengthen the acquired knowledge.

The presence of existing hypertext, hypermedia, graphics, animation and sound programs has a great effect on the application of information technologies to the educational system, when analyzing the experiences gathered abroad and in our republic, the pedagogical software tools of information technologies as new tools in teaching the educational process has wide opportunities for acceleration and differs sharply from traditional teaching tools.

In accordance with the concept of creating a new generation of educational literature for the continuing education system, the structure of the educational electronic methodical support developed on the basis of information technologies should include the following elements:

- cover, window view;
- sections for each menu;
- comments, for the processes to be performed;
- a complete description of teaching electronic methodical support;
- a brief description of the educational electronic methodological support (for example, in the form of a working window of the program);
- information system for working with teaching electronic methodical support.

It is desirable that the cover of the educational electronic methodical resource is as beautiful as possible, for this it is necessary to enrich it with elements such as graphics and multimedia, animation.

The title of the textbook, information about the higher organization (for example, the ministry), copyright, time of creation, the name of the organization that created the electronic educational resource, the possibility to get brief information about the authors must be available, a certain part of this information (information about the authors, the organization that created the educational electronic methodological resource, copyright, etc.) is carried out using special buttons, the content of the educational electronic methodological resource is a very important structural element of supply. On the one hand, the content should be rich in hyperlinks and should be located in one part of the screen, while keeping a sufficient sequence of topics and providing quick access to the necessary topics.

In addition, the content should have the opportunity to perform appropriate actions, including a knowledge control mechanism, performing a search action on a specific text of the educational electronic methodological support, a list of main and additional literature, o The ability to switch to an optional part of



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the e-learning resource, to finish working with the e-learning resource, to return to the main cover from an optional part of the e-learning resource makes it easier to use.

The knowledge control mechanism has a special place in the educational electronic methodological support created for the group topics of "initial settings, installation of additional programs, commissioning" of the "Operational systems" science. The mechanism of knowledge control provides control over all topics of electronic methodological support for teachers. For this, it is necessary to present all the questions related to all subjects in the database of the educational electronic methodical support to the students in a convenient way.

The presence of the function of searching for the given text in the electronic methodological support of the teacher further expands the possibilities of the electronic methodological support of the teacher. One additional requirement for this function is to ensure that its string can contain long enough text.

An electronic instructional resource management system provides text manipulation and a series of on-screen buttons that can be used to move from table of contents to topic, page by page, forward, backward, return to table of contents, get help, consists of hyperlinks that call up images, animations, and various types of tables and graphs on the screen.

Ensuring the interactivity of teaching should be done in a certain order, taking into account the specific aspects of teaching academic subjects. The teacher should create various opportunities for the learner to perform and control repeated educational activities using electronic methodological support.

It is desirable to prepare the basis of active educational dialogue, taking into account the mutual direct communication and dependence between the participants of the dialogue, and the preparation of educational electronic methodological support.

The main organizer of interactive educational communication is the effect of teaching, in accordance with it, the type of activity of the learner, the control of the implementation of this activity and the implementation of appropriate changes in the teaching process according to its result. It will be necessary to increase.

Forming the teaching process in the form of practical exercises, forming and controlling the student's study activity, checking the suitability of the selected answers, mathematical calculation checking the correctness of the books, controlling the input of graphic data, control of the input of analytical expression in an unrestricted form, etc.

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