

# IMPORTANT ADVANTAGES OF ORGANIZING THE EDUCATIONAL PROCESS USING SPECIAL APPLICATIONS

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## **ABSTRACT**

Effective use of special electronic software applications in training sessions in the modern education process is rapidly developing today. This is due to the continuous improvement of technology. To master the necessary programs, interactive whiteboards and overhead projectors, computers, as well as the latest devices designed to reproduce data from digital media have appeared and are being successfully used. In connection with the use of the Internet in educational institutions, the requirements for the development and improvement of educational and methodical manuals are increasing. The article also talks about the advantages and practical importance of the method of developing professional and pedagogical training of students based on special software tools and special applications.

**Keywords:** program, method, electronic textbooks, pedagogical technology, computer

# **INTRODUCTION**

Currently, electronic educational tools are taking an increasingly high place in providing the pedagogical process with information and material. Special pedagogical software tools are didactic tools designed for partial or complete automation of the educational process with the help of computer technologies. They are considered one of the promising forms of increasing the effectiveness of the educational process, and are used as teaching tools of modern technologies. It is necessary for each specialist to have knowledge about the possibilities of using informatics and information technologies, which he must use in his professional field, and to form and develop



skills and qualifications for their use. It contains the basic theoretical and practical information needed by every professional.

Special pedagogical software tools include: a software product (set of programs) aimed at achieving specific didactic goals in a subject, technical and methodical support, additional auxiliary tools. Based on this, the future mathematics and informatics teacher should have knowledge of software tools, pedagogical and practical software tools, automated workplaces, and specialized software tools; - to be able to use the classification of software tools, types of pedagogical software tools, types of practical software tools, the purpose and tasks of specialized software tools, practical hardware packages used in solving mathematical problems, the technology of preparing mathematical and natural-scientific texts and its software, computer design packages to have skills; should have the skills to create pedagogical software tools and use them in the educational process, work with specialized software tools, work with practical hardware packages used in solving mathematical problems, work with a statistical data processing package.

Pedagogical software tools (PDV) are a set of didactic tools designed for partial or full automation of the teaching process with the help of computer technology. PDV includes: a program (or a special application) aimed at achieving the didactic goals given in the teaching of this or that educational subject; includes a set of technical and methodical documents, as well as a set of additional tools if necessary.

The wide spread of computer devices and related telecommunication and information technologies leads to the creation of new trends in almost all spheres of society's life. Education is no exception. In the last two to three decades, computer equipment, as well as related tools and technologies, have become an integral part of the educational process. Thus, information tools are used to prepare students and organize education in educational activities, they are called differently in different publications. These are educational and pedagogical tools, computer educational tools and pedagogical programs. The above list of such terms is not exhaustive. But the definition of ESP is used directly in the training of students in the training sessions, which is defined by such a concept as the electronic publication of education. Based on the current classification of electronic educational tools, we highlight their main types:

- o general purpose software maintenance tools; electronic simulators;
- o software designed to measure and control the level of students' qualifications, skills and knowledge;
- o software necessary for simulation and mathematical modeling;
- directory information search systems;
- o laboratory programs (virtual and remote access);



- EI electronic textbooks;
- AOC automated training systems;
- EOS expert training systems;
- o industrial systems, as well as their analogs, which are means of automation of professional activities, etc.

This concept is more general when considering e-learning tools as well as e-learning publications. This publication contains a collection of text, graphics, speech, digital, music, photo, video and other information. It is published on any electronic media or computer network. At the same time, the electronic publication contains systematized materials in the relevant field of knowledge. The main task of EI is to provide students with creative and active acquisition of skills and competencies in a specific subject. Such e-learning tools should be characterized by the highest level of artistic design and execution, complete information, quality of technical implementation and methodological tools. They should also have a coherent, logical and visual presentation. The use of electronic educational tools significantly increases the quality of audio and visual information. It will be more dynamic, colorful and bright. Types of electronic educational tools based on modern multimedia technologies are great opportunities in this regard. It should be noted that ESO allows to radically change the methods of formation of various types of data. In traditional visual education, the object studied had a certain characteristic, but with the advent of information technology and electronic educational tools, not only specific subjects, but also scientific concepts, the possibility of dynamic interpretation of theories and laws also appeared.

Of all the available types of e-learning tools, the following are used for automation: preparation of documents related to educational activities, regular calculations; data obtained as a result of experimental research.

Software service tools are used in practical laboratory exercises, as well as in the organization of projects and independent work of students in training sessions. These e-learning tools are especially widely used in education as knowledge measurement and control tools. This made it relatively easy to create them. Currently, a number of shell systems are successfully used, which can be used by the teacher. Even a teacher who is not familiar with the basics of programming can create an electronic learning tool in the form of a list of questions on a certain educational topic, as well as possible answers to them. The use of such special software tools allows the teacher to be freed from the usual work related to issuing separate control tasks for each student, as well as checking the accuracy of their results. This is especially relevant in the field of public education. When using such special software tools for the organization of



electronic education, the teacher even has the opportunity to control knowledge more through self-control. All this allows to encourage students to repeat and consolidate the learned material.

Electronic simulators

The main purpose of these teaching tools is to form practical skills and competencies in students. Simulators are particularly effective in solving problems as an e-learning tool in the educational process. Using these tools, the students receive a brief introduction to the relevant science theory in the training session, after which the children are taught at different levels with the implementation of supervision and self-control.

#### COMMENTS AND SUGGESTIONS

The advantages of e-learning tools in the form of simulators as one of the methods of mastering programs in training sessions are that they are able to perform three interrelated functions. That is: Diagnostic. This feature allows you to determine the level of skills, qualifications and knowledge of the student. The didactic capabilities of electronic educational tools allow to identify and eliminate existing deficiencies in the student's knowledge. Since such a simulator, as a rule, is a unique set of test questions, it is much higher than all other types of pedagogical control with its breadth, objectivity and diagnostic speed.

**Teaching.** A similar function of the electronic simulator is that its use allows to activate the work of the student in mastering a certain subject. In fact, when developing such tools, tips and leading questions are included in their program. Students solve tests and get links to questions or sections of theoretical material where incorrect answers are given. The electronic simulator fulfills its teaching function and gives the student the opportunity to solve a task of the same type or the same level of complexity.

**Educational**. Modern electronic educational tools in the form of simulators regulate students' activities and contribute to their self-organization. When working with these tools, a desire to develop responsibility, independence and initiative is formed in the students during training sessions.

Contains similar e-learning tools and learning resources in different subjects. Therefore, interactive simulators are very actively used by many teachers. They use such electronic tools to teach languages, exact sciences, etc. Interactive simulators are used in classes where it is important for the teacher not only to systematize the studied



material, but also to direct the class to the main topics. the studied material. All this allows you to understand the subject and prepare children for credit work. In addition, when developing electronic learning tools in the form of simulators, their visual range is often supplemented with textbook drawings. This allows you to increase the visibility of the lesson. At the same time, the electronic simulator becomes an indispensable tool that not only helps the teacher to explain complex educational material, but also helps his students to successfully master it during independent work.

As a means of organizing electronic education, simulators are used at various stages of the lesson, for individual or previous work with students, as independent homework, to eliminate knowledge gaps, as well as solving problems or theoretical material on the subject being studied.

Simulators as a means of organizing electronic education significantly increase the motivation of students to learn science. In addition, each student is given the opportunity to work at a pace convenient for him, which allows him to get rid of psychological stress. In addition, the basis of e-learning tools in the educational process is the game base. He brings positive emotions to the classroom.

Working with e-learning tools creates a situation for students to achieve success. The task of the teacher is to motivate and interest the student to master the compulsory program in science, as well as to achieve the objective of bringing the child's unique skills to automaticity..

#### **CONCLUSION**

The use of special applications in the educational process allows children to target their proposed tasks with several re-decisions. And this is one of the advantages of special applications. In addition, the electronic simulator allows the teacher to spend a minimum of time to objectively evaluate the results of each student of the class. At the same time, the student understands that the assignments show the true level of his knowledge. It is software designed for simulation and mathematical modeling. With the help of such tools, the limits of theoretical and practical training of students in training sessions are greatly expanded. In this case, physical experience is complemented by calculation. In the educational process, some of these e-learning tools offer students models of research objects, while others offer models of measurement systems. With the help of such tools, it is possible to save money on the purchase of expensive laboratory equipment and increase the safety of practical work of students. Currently, many modeling programs have been developed and are used in the educational process. They are designed to teach children various subjects in the

curriculum, in particular, mathematics and languages, biology and chemistry, physics, fiction, etc. and the educational process in training sessions. This is possible due to the use of various methodological methods. The main features of this type of elearning tools are their development as well as learning features. And this is not only computer programs, but also a collection of similar programs presented in the form of separate series, packages, subsystems and collections. It should be noted that the information models used in educational activities are often not universal. Each of them was originally created specifically for a narrow range of events. Models based on the use of mathematical technologies are used not only to demonstrate phenomena that are difficult to reproduce in an educational environment. They are also designed to interactively determine the degree of influence of certain parameters on the created situation. This allows information models to replace laboratory equipment, as well as to develop practical process management skills in children.

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