Methodical system of teaching computer animation in higher education institutions.

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Abstract: Speaking about the importance of modern educational technologies in educating students, President Mirziyoyev said, "The widespread introduction of new information and pedagogical technologies in the educational process, teachers who are diligent in raising our children to be perfect people. It is necessary to pay more attention to, in short, to raise the education system to a completely new level in terms of quality. " This issue is also recognized as one of the main directions in the State Program "Year of harmoniously developed generation".

KEY WORDS: technology, diligent, issue, economy, computer, recognize

1. INTRODUCTION

An important factor in the effectiveness of the economy, management, science and education in our country is the creation of a national system of global information infrastructure and national information-computer network integration. These problems are quite complex and at the same time relevant for our republic. The results of the current economic, structural and other changes in the country are related to informatization. It also depends on how and when the problems are resolved. By the middle of the twentieth century, high-speed machines began to be used, complex techniques and technologies were invented. In the process of solving many problems, the volume of information has become an innumerable complex, and it is necessary to create the means for collecting and transmitting this information, to identify the necessary measures for their timely processing and management. Improving management processes, introducing information systems, and training professionals to work on computers are important in many tasks. The computerization of education dates back to the 1950s. Its predecessor was programmed education, the mass use of which dates back to the 1950s. Like any innovation in society, programming education had its pros and cons. However, programmed education has led to profoundly positive changes in educational work. Experts and teachers have mastered new methods of analyzing teaching materials has become a single system for receiving, consolidating and testing information on educational materials. Feedback in education has taken on a new meaning.

2. METHODOLOGICAL UNITS

Psychological, pedagogical, didactic, methodological basis for the full mastery of the subject was created. Due to its economic cost and weaknesses in its organizational structure, researchers' interest in programmed education declined to some extent in the 1970s. Although research in the field of programmed education has declined significantly, a new direction in its shell has arisen the problem of computerization of education. The importance of computers in education is immense. It covers issues ranging from the administrative management of the education system to the organization, management, control of individual school activities, from the organization of the study of academic subjects to the organization of individual lessons for students. The computer is recognized as a very convenient tool for storing and processing information and delivering it to students in various forms and ways. The use of computers in education can be compared to the emergence, place and importance of books in human history. The benefits of computer-assisted learning are many: students have less time to develop certain skills; the number of assignments to be practiced will increase; students' performance accelerates; as a

result of the need for active management by the computer the student becomes a subject of education; students will have the opportunity to model and demonstrate processes that are difficult to observe and observe; it will be possible to provide the lesson with remote resources using communication tools; communication with the computer takes on the character of a didactic game, which increases the motivation of students to learn, and so on. That is why all the economies have been developed to solve the problem of computerization of education. In different countries, as well as in our country, research is being conducted in various areas.

Analysis of sources shows that the use of computers in education has an impact on the intellectual development of students in connection with the problems of computerization of the teaching process (B.F. Lomov, K.M. Gurovich); theory of gradual formation of mental activity (P.Ya.Galperin, N.F.Talizina); programmed education theory (B.P. Bespalko); theory of human-machine interaction (A. Chapanis, G. Pesk); organization of user communication with the computer (A.M.Dovgyallo); learning activities design (E.I. Mashbits); to create application tools. A number of problems, such as ergonomic requirements (D. Meyter, N. Bondarovskaya), have been studied, and our research is related to one or another aspect of them. In other words, the research of the scientists named above is our scientific research is the theoretical basis for Technology is a Greek word that means techno-art, skill, logos -teaching. Nowadays, the concept of pedagogical technology is defined and interpreted differently. There are more than 300 definitions of pedagogical technology. Of these, the UNESCO definition is the most appropriate. Advances in modern information technology make it one of the modern requirements for the use of computer networks and the Internet in the educational system. Multimedia appeared in our country in the late 1980s. At that time, multimedia was used by professionals, not on home computers. By 1993, a team of multimedia researchers, finished multimedia products and their began to be used by consumers. The use of modern methods of teaching communicative communication in the teaching of English and other languages not only increases the effectiveness of the lesson, but also increases the interest of students in science and language. develops a worldview. The use of information technology by the teacher, along with the use of interactive methods, is more effective in language learning. Today, electronic resources and multimedia are widely used in education. Multimedia is a modern computer information technology that allows you to combine text, sound, video, graphics and various (animated) animations in a computer system. Multimedia is a multiplication of technologies for input, output, processing, storage, and transmission of text, sound, video, graphics, and various (animated) animations into a computer. Multimedia is an interactive system that amplifies the sound of text, sound, video, graphics, video animation through various (animated) animations. Fixed image with sound effect on multimedia display screen and animation with animated graphic image with sound enters. The advent of the multimedia system has brought about dramatic changes in the education system, the arts, computer training, computer games, and the conduct of education. Today, the word multimedia can be understood in three ways: "multimedia-idea", which is a new approach to storing different types of information. The development of computer technology to process different types of information led to: started with numbers, text processing was installed on the computer, image and audio data were converted into an object to be processed, now the computer can easily provide video and audio images; devices that handle information of a different nature. These include multimedia board, multimedia complexes and multimedia centers;

―Multimedia product is a product consisting of different categories mentioned above. Educational programs can be included in the multimedia training complex. The multimedia educational complex includes: e-book (hypertext, pictures, commentary in audio format); module for assessment and testing of knowledge (tests, questions, answers); database and glossary. In addition to the above modules, the multimedia teaching complex includes the following additions: methodical documents, presentations of lectures, training programs (computer models), final assessment of knowledge; private site. In the context of a two-tier education system, multimedia programs can be used in a variety of ways: multimedia teaching

aids, personal use tools, multimedia and the teaching complex is a teacher's and master's tool. The main feature of the multimedia teaching complex is interactivity, which allows you to create an open system of education, choosing the process of individual teaching of the teacher. The two programs complement each other. Such programs play an important role in the organization of independent learning of students. The term informatization of society was first used by D.Bank and Y.Masudo, and is derived from the contradictions that exist today means a society that is integrated with computers, informatics, electronics. The word "technology" translates from Greek to mean art, mastery, skill. "Process" means the whole set of actions to achieve the following goal. The process must be defined by the strategy chosen by the person and carried out using methods. Material production technology refers to the processing of raw materials or materials, technology is a process defined by a set of means and methods of preparation, condition, properties, change of shape. Technology changes the quality or initial state of raw materials in order to obtain a material product. Information is one of the most valuable resources for society, such as oil, gas, minerals, and similar types of traditional material resources, which means that the process of processing it is similar to the processing of material resources can be taken as. Information technology is the process of using a set of tools and methods to collect, process and transmit information about the state of an object, process or event (information product) from one form to another, in a qualitatively new form. While the goal of material production technology is to produce a product that meets the needs of a human or system, the goal of information technology is to produce the information needed to analyze, draw conclusions, and make decisions. consists of There are similar technical means in information systems, as material production is carried out with the implementation of technological processes, various machine tools and similar technical means. These include computers, network tools and communication channels, software and mathematical software. Information technology is directly related to information systems, which are the main environment for it. This is because information technology is an ordered process that consists of performing operations, operations, and algorithms of varying complexity on data available in information systems. It is now clear that computers are being used in every human endeavor. It is no exaggeration to say that before the advent of the computer, engineers and physicists were in dire need. The rapidly evolving nature of science and technology leads to huge calculations, and scientists have realized that they can only be calculated with the help of a computer. Let's start with the simplest set of computers. If the initial information can be given to the machine by means of continuous lines, that is, equations, and then the machines themselves such machines are called automatic calculating machines if they continue the calculations and display the drawing. A different type of these is called digital computers. They are continuous and discrete. In this type of machine, all information is in the form of digital codes. IBM PC-type personal computers (PCs) mainly consist of the following basic devices:

• Input device (Keyboard, "Mouse");
• Output device (Printer, Monitor);
• System unit (Memory, processor, adapters).

Memory serves to store data. It is divided into external and internal memory. External memory (hard disk or hard drive) serves for long-term storage of data. The following types of external memory are also available: A processor is a device that modifies the data provided by a program, controls all computational processes, and interacts with computing devices. The processor performs arithmetic and logic operations, accesses memory, executes program instructions in the specified sequence, and communicates with memory. The processor mainly consists of the following devices. The microprocessor controls the computer and performs all the calculations. The microprocessor has the ability to perform various operations quickly. Its speed can reach 4 billion and more per second. Random access memory stores the programs and data needed for the processor. When the computer is turned off, the data in RAM is erased. Random access memory stores programs and data running on a computer. The data is copied from the permanent memory to the RAM, and the results are rewritten to disk if necessary. The software and data are

copied to the hard disk. The hard disk constantly stores software and data. Electronic circuits (or controllers) control the operation of various devices that enter the computer (monitor, keyboard, etc.). Data is exchanged with the processor through the input-output port. It is advisable to use educational programs in the organization of independent learning. Curricula are a block of topics and a set of applications that students complete as part of their independent learning. Every topic in the curriculum is basic have theoretical knowledge of the concepts, an algorithm for performing practical exercises relevant to the topic. After the theoretical information, a list of questions should be recommended for self-examination, which will make it difficult for students to determine what they have learned allows you to recycle parts. Theoretical knowledge to work independently in order to strengthen the topics have practical assignments that build students 'ability to work with the program. Curricula should include integrated tasks that integrate information technology in a modular way. They require not only theoretical knowledge, but also practical skills, knowledge of one or more disciplines, additional independent search for information and the use of other information technologies, which will further develop the ability to use information technology. In addition, the curriculum should include correct answers to questions, supporting information, and in-depth information that students can use at any time. From ready-made software products to creating such e-learning resources, the web programming languages as well as visual programming environments are widely used. The Delphi programming environment is very convenient and has a wide range of capabilities for the preparation of electronic textbooks and training programs. The simplicity of the Delphi programming language, the ease of the interface and the fact that the program created in it works on all operating systems make it convenient for teachers. There are special components for creating multimedia applications in the Delphi environment very easy to use. Adobe Flash Pro CS5, Adobe Captivate CS5.5, Adobe Photoshop CS5, Delphi 7 were used to create this tutorial.

RESULTS. One of the most widely used e-learning resources is Ispring. Microsoft PowerPoint software is often used in preparation for presentations. However, such presentations can only be in this product format (ppt, pptx). Nowadays, due to the development of Internet technologies and, in turn, the emergence of distance learning, presentation files can be downloaded online in the Internet browser itself.

must be a file created in flash (swf) format or based on HTML 5 technology for direct viewing. So far, programs have been created that allow you to create a flash clip from a presentation prepared in PowerPoint. The product is called iSpring and includes iSpring Free, iSpring PRO and iSpring. It has options like Presenter. According to independent experts, today this product is one of the best in terms of speed, conversion quality from one format to another and the number of options. iSpring only flash presentations but also in the preparation of videos that can be used in the educational process, in particular, they provide an opportunity to interact with each other, including various forms of surveys, including electronic tests. iSpring has the following options:

• Ability to convert presentation files in several formats (exe, swf, html);
• the ability to include external resources (audio, video or flash files) in the presentation content;
• protection of presentation content: password protection, "protection" of the presentation, "conversion" of the presentation only in authorized domains;
• Add video and sync it with animations;
• A tool for creating interactive texts that allows you to create electronic tests (controls) and send the results to e-mail or distance learning system (LMS) (Quiz button);
• SCORMGAICC - creation of compatible courses for use in distance learning;
• ActionScript API for conversion at presentation application level;
record a video and synchronize it with the presentation;
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