

THE ROLE OF MULTIMEDIA IN EDUCATIONAL INFORMATION

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ABSTRACT

The article discusses the role of multimedia in the informatization of education, the specifics of the use of multimedia in the educational process. It is said that a multimedia system is a modern technology designed for the learning process and aimed at achieving the desired goal.

Keywords: Education, system, multimedia, interactive, technology, module, innovation, text, graphics, animation.

INTRODUCTION

In his Address to the Oliy Majlis, President Mirziyoyev announced that Uzbekistan is moving towards a new path of development: "Today we are all in the life of the state and society. We are moving towards innovative development aimed at radically renewing the industry. This is not in vain, of course. Because who will win in today's fast-paced world? A state based on new ideas, new ideas and innovations will win." Unfortunately, we did not pay enough attention to the issue of educating mature people who will be worthy successors of our great ancestors (Al Khorezmi and Beruni). However, we must not forget that intellectual and cultural potential is a unique asset, and it is crucial to nurture and develop rare talents. It is also true that developed countries have reached today's high level of development due to this. We have one goal in mind. In other words, Uzbekistan must be globally competitive in the field of science, intellectual potential, modern personnel and high technologies.

In the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021, to further improve the system of continuing education, increase access to quality educational services, continue the policy of training highly qualified personnel in line with modern needs of the labor market; take targeted measures to strengthen the material and technical base of educational institutions by building, reconstructing and overhauling them, equipping them with modern teaching and laboratory equipment, computer technology and teaching aids development of national content, education in the state language, scientific and educational, improvement of mechanisms for the creation and promotion of modern information resources, multimedia products in accordance with the needs of young people. At the same time, the population of the Republic will have access to high-speed Internet, multimedia and IP-TV services [1].

The resolution provides for the creation and promotion of national content, information resources in the state language, taking into account the needs of young people, providing them with adequate education, scientific and educational information resources and specific measures for further development of this area. development and implementation of the package. The draft resolution also addresses the issue of establishing a National Content Development Fund and directing its funds to projects in this area [1].

Programs for the future development of Uzbekistan and the material basis and opportunities created for their implementation, a powerful factor that implements all the mobilized investments, a highly qualified workforce and the responsibility for the future development of our country. The most mature professionals who are able to take on are young people.

LITERATURE REVIEW

A new pedagogical technology based on modern information technologies has entered the education system of the Republic of Uzbekistan. Each of the modern information technologies depends on certain hardware, software and other software.

Foreign scientists, such as Russian scientists N.Z. Frolova, S.V. Gurev, V.P. Kustova, N.I. Klifsova, L.A. Savina, N.M. Klimeshova, on the use of multimedia technology and computers, which are its main means, in the educational process of preschool education. M.V. Osmakova, D. Jonassen, S. Carver, R. Grabindger, D. Davidson, R. Lehrer, A. Mullon and others have conducted research on the use of multimedia technology in education in the United States. The use of multimedia technology and its main hardware in Uzbekistan began in 1985-1990. A.A. Abdukadirov was one of the first in his research work to train teachers of physics and mathematics in higher education, to conduct research on the formation of their computer literacy, and to establish a school in this area. Members include Atabayev A., Bilolov I.O, Mizrapov O.H, Isakov I., Hayitov A., Saipnazarov J.A, Esonboyeva D., Djanpeisova G.E, Aliyev I., Ashurova A. and others. T.F.Bekmurodov, M.Aripov, X.Z.Ikromova, U.Yuldashev, F.Zokirova, U.Begimkulov, R.R.Bokiev, N.Toylukov, R.H.Hamdammov on multimedia technology and computer use in the educational process of educational institutions of the Republic, B.Muminov, A.I.Ashirova and others have also conducted research and made a significant contribution to their popularization. [3]

Research methodology

The ability of a teacher to learn and disseminate best practices in creative learning practice depends on his or her level of preparation for innovative pedagogical activities. There are several different methods of teaching in public educational institutions, in which theoretical and practical training plays an important role. These forms of knowledge transfer serve to strengthen and deepen the knowledge acquired during the lectures, to improve their skills by applying theoretical knowledge in practice. Practical classes play a special role in preparing students for professional activities, in the thorough study of the material, and form part of the classroom hours.

Today, the teacher must come to each lesson, especially the practical ones, with special preparation, that is, to think deeply about the methods used in reading the topic, including the problem, examples, and how to use them. 'should be brought to the ring. Due to the possibility of an individual approach to students in the practical classes, if there are problems of any kind or complexity, the teacher should explain, provide guidance, if necessary, follow the theoretical rules. It is also worth mentioning.

It is in the process of organizing and conducting these classes that electronic resources (e-textbooks, e-manuals, e-developments for practical and laboratory classes, encyclopedias and etc.) is growing. It is well known that in a traditional teaching system, teaching materials are usually presented in the form of texts and formulas, and it was difficult to memorize them. Classes are organized on the basis of innovative software-didactic complexes with special software developed using information technology, which allows to present not only in the form of text and formulas, but also in the form of images.

Understand their current pedagogical activity through the use of multimedia system in the process of educating students, change and develop the educational process in order to achieve better results, gain new knowledge, pedagogical experience of a different quality. The process of New philosophical-pedagogical, psychological-pedagogical approaches to the understanding, education and upbringing of students in the context of the use of multimedia systems in the educational process; new conceptual pedagogical ideas for the application of the content and methods of education; new forms of organizing the activities and life of the student and the activities of educators in the management and self-management of the interaction with parents and the social environment.

It is known that as society develops, the organization of the use of available information resources on various issues such as economics, science, technology, culture, art, medicine, increasingly affects the intellectual and economic life. Every minute, human beings live through the senses, gathering information about the environment, thinking and implementing measures to solve life's problems. Wherever people are, today they need to improve their skills and update their knowledge base with new information. Everyone has different information for themselves almost every day. For example, he accepts financial, scientific, or ordinary everyday events and acquires some knowledge. Needs require that the acquired knowledge be stored in memory and applied in practice when needed, and that the knowledge acquired, how it is prepared, and how it be demonstrated. The purpose of this work is to develop the ability to independently study science in the classroom, to use it, to use animation.

The importance of learning about multimedia in the teaching of computer science, the importance of learning through multimedia, its advantages, and increasing the interest of students in science and the formation of the effectiveness and importance of independent study of the subject.

Multimedia tutorials include text, graphics, video, sound, and animation, which means that if a student wants to learn a subject on their own, they can run a special program written on a computer. These programs may consist of a theoretical part of the subject, practical training, and test assignments. Students will be introduced to the structure of the program. The knowledge gained through such programs is stored in memory for a long time and can be used in practice when needed.

Multimedia systems are now successfully used in education and training, publishing (e-books), business computerization (advertising, customer service), information centers (library, museum), etc. Computer-assisted multimedia systems play a key role in deepening knowledge, reducing teaching time, and increasing the number of listeners per teacher. Computer-based instructional systems have a stronger networking capacity than video-cassette courses, which provide information in a coherent manner, and allow students to connect directly to a topic of interest. In addition, these systems are equipped with effective tools for evaluating and monitoring the acquisition of knowledge and skills. Even today's fast-growing mobile devices can perform tasks such as viewing, hearing, and taking multimedia information. Some of these devices running on the Android operating system can also perform computer-level tasks.

• One of the modern multimedia technologies used in the educational process is interactive whiteboards. They look like ordinary bulletin boards, and every text, graphic view, drawing, table, etc. that you write on them quickly appears on the board display in minutes. The main advantages of whiteboards in education are:

- Focus students' attention on one object;
- Availability of copying, e-mailing, and storing of course-related results;

- The possibility of sharing text, sound, animation, graphics in the classroom;
- the use of an electronic pen to edit information in the process of explaining the topic [7];

Education based on multimedia technologies relies heavily on hardware and software infrastructure. Multimedia (as the placement and presentation of educational information) and computer devices (as a means of organizing and presenting it). Therefore, one of the principles that should be taken into account when creating multimedia electronic resources is the principle of distribution of educational materials. The second important principle to consider when developing a multimedia electronic resource is the interactivity of the learning material. Interactive tools allow you to combine different means of presenting information - text, static and dynamic graphics, video and audio recordings into a single set, which allows the learner to be an active participant in the learning process, as long as the information presentation occurs in response to the learner 's actions.

The use of multimedia allows to take into account the specifics of the acquisition of information to the maximum, which is very important in the delivery of educational information by the educator to the student through the computer [7].

Thus, the third principle that should be taken into account when creating multimedia electronic resources is the multimedia presentation of educational information.

The problem of taking into account the psycho-physiological characteristics of the person plays a key role in the implementation of technologies for the creation of multimedia e-learning resources [6].

The main challenge in optimizing the learning process is to assess and improve the human condition in the process of acquiring new knowledge. The fourth principle that should be taken into account in the creation of multimedia e-learning resources is the principle of adaptation to the individual characteristics of the learner. Despite the importance of independent work in education (using multimedia e-learning resources), the main subjects of the educational process are students and teachers. One of the conditions for quality education is the equal participation of the student with the teacher in educational activities.

The above principles of creating multimedia e-learning resources allow to increase the quality and effectiveness of e-learning tools. A virtual education system is a web system created by teachers to create and manage online courses. Such e-learning systems are often referred to as "learning management systems" or "virtual learning environments". The system is an instrumental environment for the creation of an educational website and separate online courses, based on the theory and practice of using computer networks in education [8]. At present, the introduction of this system in all higher education institutions of the country, along with increasing the efficiency of education, also serves for independent education. Another important aspect of the use of this system in education is that most of the science hours currently taught are for independent study. At the final stage of mastering the science, it is possible to conduct a general test and assess knowledge. As a result, the system monitors the effectiveness of student knowledge in a timely manner. The student can register to use the online e-learning system or use the course as a guest.

Analysis and results

With the help of multimedia, teachers can save time and spend the time they spend preparing a didactic tool working with a student or on themselves. In practice, the use of multimedia tools makes learning a foreign language doubly effective and allows you to master the language perfectly. Studies show that learning Uzbek through multimedia saves 40% of time and allows you to memorize the acquired knowledge for a long time. At the same time, watching and listening to multimedia materials increases the ability to learn the Uzbek language, to pronounce it correctly and accurately, to develop the skills of correct writing. [10]

Multimedia curricula developed in collaboration with teachers of Navoi State Pedagogical Institute are used in the teaching process in schools of the region. Application software for solving geometric problems is also designed for students of general secondary schools, where they can calculate some geometric problems and solve examples and problems correctly or incorrectly. can be used to check the accuracy [11]. The program for the development of logical thinking in secondary school students is designed for students and includes puzzles, assignments and problems aimed at improving students' knowledge of computer science [12].

This software allows to improve the quality and effectiveness of education in geometry, computer science, to increase the imagination of students, to ensure independent learning. With the help of the program menu, users can easily perform and use a number of tasks in the application, such as a quick transition from computer science to program items, checking the correctness or incorrectness of assigned tasks, exit from the program.

The role of multimedia in the informatization of education is important, creative thinking develops through the acquisition of knowledge in electronic applications, the child learns to find a single real solution in non-standard situations. Thinking processes are conscious and rely on advanced memory. Children's creative ability comes to the fore.

Conclusion

Using specially prepared multimedia applications, videos, and various animated materials in the course of the lesson, when the learning process is organized, it increases students' interest in the topic and allows them to understand it quickly in the formation of practical thinking and imagination. It is known that pedagogical studies have shown that the traditional course can be mastered by about 25% of students. Experiments show that both listening to a lecture and viewing the material on a computer screen and actively controlling its output on the screen increase the quality of mastery. The main problem is that professors are not organized to work with programmers who are well versed in multimedia capabilities. The development and dissemination of such curricula in educational institutions will help to increase the effectiveness of students' knowledge.

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