

## THE CREATION OF A MULTIMEDIA EDUCATIONAL ENVIRONMENT IN EDUCATIONAL INSTITUTIONS AS A PEDAGOGICAL PROBLEM

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### ABSTRACT

This article covers the use of multimedia and multimedia in the educational process, the teaching of students on the basis of multimedia tools will be twice as productive and time-consuming, and the use of virtual stands in the educational process will increase the quality and efficiency of education and reduce spending.

**Keywords:** ICT, multimedia, hypermedia, animation, video, virtual stands, multimedia tools, graphics, education and training, educational planning.

### INTRODUCTION

Special attention is paid to the issues of improving the methodology of teaching Exact Sciences at the universities, modernization, development of science teaching on the basis of innovative technologies, development of didactic materials on science and improving the effectiveness of training using their capabilities, development of creativity skills in students.

With the introduction of information communication technologies into the educational process, the use of multimedia has increased significantly. Media educational tools are widely used by educational institutions. This learning method makes it easier to understand broad concepts and allows users to learn them in less time than traditional teaching methods. Multimedia technology is able to use several methods of providing information at the same time: text, graphics, animation, videotape and sound. The most important feature of multimedia is interactivity-the ability to influence the user in the process of working in an information environment. The concept of Multimedia entered our lives at the beginning of the 90th century. Many experts interpret the term in different ways. Summarizing their opinions, multimedia can be described as such: multimedia is an embodied vision of the delivery of educational materials to the student based on traditional and original types of information on the basis of software and technical means of Informatics. Multimedia concepts are very diverse, often depending on the technology available at any time. Multimedia is defined in the annotated Dictionary of the Uzbek language as: multimedia-[ing. media, medium - medium, center, tools, events] is a technology that covers a wide variety of means of information transmission (text, sound, animated and graphic images), and programs and computer tools that use such technology. In the early years definitions included information about two or more media tools, while in later years audio, music, video, user interaction, right of use became synonymous with features of fully integrated compounds. The rapid development of Information Technology has led to changes in educational activities. Computers and the internet facilitate the interactive use of textbooks in education and the application of multimedia applications, the presentation of visually and audibly enriched electronic materials for students with different learning styles. It can be said that learning in a computerized environment is more consistent with individual learning rates and helps to remember. One of the sources of information and

training that is often used in the teaching environment in recent years is multimedia resources. Multimedia was created to attract a lot of emotions. The multimedia learning environment facilitates and increases learning. Realistic or virtual images, texts, sounds, graphics and images enriched with multimedia technologies in a computer environment will help prepare qualified educational programs. It is believed that different tools, such as graphics, video, animation and sound, can make learning easier and increase by differentiating in a learning environment when presented together.

Changes in the ICT sector have also changed the ways in which information is presented, receiving exchange. While e-learning materials have many advantages in terms of time and performance, they also offer the possibility of repeated use, easy sharing and reproduction. Materials used in educational environments that have changed with computers and the internet and continue to evolve with computer education has become inevitable. It is recommended that the materials used to ensure continuity in the educational and teaching process are different and refer to several senses. There are many difficulties in preparing course materials, such as accounting for individual differences (learning style, learning speed, etc.) and then presenting them to students.

Teaching students based on Multimedia tools has the following advantages:

- It is possible to master the material being given deeper, more perfect;
- The passion for close contact with new areas of education increases even more;
- As a result of the reduction in training time, the opportunity to save time;
- The teacher does not have to be in the classroom;
- Obtained that which can be used in practice if necessary.

Teaching students on the basis of Multimedia tools is doubly productive and can win from time. On the basis of Multimedia tools, it is possible to save up to 30% of time in obtaining knowledge, while the acquired knowledge will remain in memory for a long time. When students receive the materials being given on a visual (video) basis, the retention of information in memory increases by 25-30%. In addition, when educational materials are given embodied in the form of audio, video and graphics, the storage of materials in memory increases by 75%. With Multimedia tools, information can be displayed in text, image, sound, and animation. Multimedia information resources are composed of animated, audio and video data.

According to the tasks of the technical means of multimedia can be studied into the following types:

- Speech information input output devices (microphone, amplifiers, sound colon);
- Video and graphic data entry devices (digital video camera, digital photo camera, TV tuner, modem);
- Data Display digital image and video storage display devices to the user (monitor, projector, video card). The computer stores multimedia data in different formats. Text: text is one of the most important parts of multimedia. The design and content of a Multimedia text is different from other types of text, such as newspaper and book text. Graphics: images, photographs, images and other works of art are called graphics. Computer graphics deals with the creation, representation, manipulation, and display of computer-aided images. Graphics are one of the most important components of multimedia, since through it we can depict information in the

form of a picture. There are 2 types of graph: linear drawing and image. Animation: animation is one of the most dynamic forms of multimedia. Animation drawings, objects, people, etc. created by recording still images of CLAR. Multimedia consists of the interaction of visual and audiosamara, using modern and software tools, under the management of Interactive Software. Hypermedia are computer files associated with hypertext vastas used in multimedia objects.

In the organization of education using computers and other internet technologies, in addition to various advantages, there are also some disadvantages: this can be a problem with communication lines. These problems can be solved using optical CDs called CD-ROMs and DVDs. The use of virtual stands in the educational process not only increases the quality and effectiveness of education and reduces spending, but is also a factor in creating an environmentally friendly, safe environment. Through the means of Multimedia stands, it becomes easier for readers to keep any information in their memories not only by sight, but also by hearing. The introduction of modern multimedia technologies into the educational process is one of the promising directions of informatization of the educational process, and an important condition for the intellectual development of students and students and the socio – economic development of our society.

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