



# CENTRAL ASIAN JOURNAL OF THEORETICAL AND APPLIED SCIENCES

Volume: 03 Issue: 06 | Jun 2022 ISSN: 2660-5317

## USE OF MULTIMEDIA TECHNOLOGIES IN THE PROCESS OF TEACHING BUILDING MATERIALS AND PRODUCTS

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*Received 4<sup>th</sup> Apr 2022, Accepted 5<sup>th</sup> May 2022, Online 4<sup>th</sup> Jun 2022*

**Annotation.** In developed countries, teaching methods are now applied in the field of education. Practice shows that teaching students based on multimedia tools is twice as effective and can save time. The article discusses the use of multimedia technologies in the process of teaching building materials and products, the success of teaching materials in the form of audio, video and graphics.

**Keywords.** teaching methods, multimedia tools, building materials, multimedia technologies, audio, video and graphics.

**Introduction.** Worldwide, computer graphics and design are highly developed and have been successfully applied in practice. But the main part of all these programs, videos, designs are created for movies, cartoons, websites. The lack of multimedia textbooks on science on special sites, as well as the inability to fully cover the topics of a particular subject, recognizes the need to pay more attention to education [1].

The use of multimedia technology in the teaching of building materials and materials, the inclusion of text in e-textbooks, the creation of videos from pictures, which are now the most modern direction of graphics, increase interest in sites and related things. The use of multimedia in the lessons provides a number of conveniences for teachers. This is because sound programs, illustrations, animations (films), animated films, animations are a novelty for the teacher on the one hand, and on the other hand, they are interesting and interesting for students and help them to master the subject [2].

The advantages of using multimedia technologies in the process of teaching building materials and products are:

- It is possible to store large amounts of information of different types on a single disk (several chapter texts, thousands of high-quality images, several hours of movies and videos, and audio information);
- It is possible to divide the images on the screen into parts or enlarge the most interesting and necessary

parts, while maintaining the quality;

- Possibility of comparative analysis of graphs, images and pictures, calculation of their indicators, processing with the help of software for scientific or research purposes;

- it is possible to extract from the text or other information used for illumination of the image or image the necessary information to obtain and explain the keywords or the desired part of the image;

- Ability to carry continuous music and other audio supplies similar to static or dynamic images;

- Ability to use a video recording using the "stop-frame" mode;

- access to the global Internet and access to its resources;

- can work with graphics and sound editors, personal applications that can process cartographic information and text.

In addition to the advantages and features listed above, there are many other options, including automatic viewing of the whole or part of the image, preservation of the selected location, and bookmarks.

The emergence of multimedia systems has led to the development of information technology and its widespread application in science, education, trade (business) and medicine.

Multimedia tools of information technology are of special importance in the educational process with the following most important aspects:

- organization of differential and individual learning process;

- assessment of the learning process, feedback;

- self-monitoring and self-correction;

- demonstrate the studied disciplines and their dynamic process;

- use of computer and information technologies in science, such as animation, graphics, animation, sound;

- to develop strategic skills for students to master the subject, etc.

The practical side of multimedia also paves the way for the use of them in the educational process and the creation of a database and animated presentations for the future educational process in the education system [3].

Multimedia is an evolving modern information technology. Its distinguishing features include:

- integrates different types of information: traditional (text, tables, decorations, etc.), original (speech, music, video clips, TV footage, animation, etc.), in one software product;

- work at a certain time, unlike text and graphics, which by nature are static, audio and video signals are considered only at certain intervals of time. To process and display video and audio information on a computer, the CPU's fast mobility, data bus bandwidth, RAM and video memory, large capacity external

memory, volume, and the speed of exchange over computer input and output channels are required to be doubled [4];

- "human-computer" is a new level of interactive communication, in which the user receives a much wider and more comprehensive information, which allows to improve the conditions of education, work or leisure;

- Educating students on the basis of multimedia and retraining is a topical issue today.

In developed countries, teaching methods are now applied in the field of education. Practice shows that teaching students based on multimedia tools is twice as effective and can save time.

Multimedia-based learning can save up to 30% of time, and the knowledge gained will be stored in memory for a long time.

If students receive the given materials on the basis of visibility, the retention of information will increase by 25-30%. In addition, if the training materials are presented in an audio, video and graphical form, the retention of materials will increase by 75%.

The use of multimedia technologies in the process of teaching building materials and products has the following advantages:

- Possibility of deeper and more complete mastering of the given materials;
- The desire to work closely with new areas of education will increase;
- Achieving time savings as a result of reduced study time;
- The acquired knowledge is stored in the memory for a long time and can be used in practice when needed.

In the process of multimedia teaching, students will be able to fully teach a specific subject on a computer, edit lecture texts, improve the method of narrating lecture texts based on the analysis of control results submitted by students, see, hear and reflect on animation elements in the classroom [5].

There are a variety of different technological approaches to the development of quality multimedia applications. The use of multimedia technologies in engineering, especially in the training of building materials and materials, in virtual environments in hazardous conditions: open space, deep seas and oceans, nuclear engineering, remote control of robots is widely used.

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