



THE IMPACT OF USING MULTIMEDIA EDUCATIONAL RESOURCES ON CHILDREN'S CREATIVE THINKING

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Abstract: *This article analyzes the role of multimedia technologies in the modern educational process and their importance in developing children's creative thinking. The use of multimedia tools The article discusses how visual , audio, and interactive opportunities affect a child's ability to absorb information and find unconventional solutions to problem situations. The article also provides methodological recommendations for the effective use of educational resources.*

Keywords: *Multimedia, creative thinking, creativity, interactive education, ICT, visualization, cognitive development, education resources, pedagogical technology, motivation.*

Today, the digitization of the education system and the introduction of innovative technologies into the learning process are one of the priority tasks. Multimedia is a complex information system that includes text, graphics, sound, animation and video. Children, especially in primary and preschool age, perceive the world through images. Therefore, multimedia resources are not only a means of imparting knowledge, but also a key driver in revealing their hidden creative potential.

The concept of multimedia came into our lives in the early 90s. Many experts interpret this term in different ways. Summarizing their opinions, multimedia can be defined as follows: multimedia is an embodied form of delivering educational materials to the student based on traditional and original types of information based on software and technical means of informatics.

Multimedia concepts are very diverse and often depend on the technology available at any given time. The word multimedia is defined in the explanatory

dictionary of the Uzbek language as follows: multimedia [eng. media, medium-middle, center, means, events] technology that encompasses various means of information transmission (text, sound, animated and graphic images) and programs and computer tools that use such technology. In the early years, the definitions included information about two or more media, but in recent years they have acquired the same meaning with the features of fully integrated combinations of audio, music, video, user interaction, and access rights.

Multimedia (multimedia - multi-media) is a set of technical and software tools that allow a person to communicate with a computer using the natural environment for him: sound, video, graphics, texts, animation, etc.

Multimedia is a rapidly developing modern information technology. Its distinctive features include: - integration of various types of information: traditional (text, tables, decorations, etc.), original (speech, music, fragments of video films, TV frames, animation, etc.) in one software product. Such integration is carried out under computer control using various devices for recording and displaying information: microphones, audio systems, optical compact discs, television, video recorder, video camera, electronic musical instruments;

- unlike text and graphics, which are static in nature, audio and video signals are processed only for a certain period of time. To process and display video and audio information on a computer, a high-speed central processor, a high-capacity data bus, a large external memory (mass memory) of operational (fast) and video memory, a volume and an approximately doubling of the speed of exchange of information through the computer's input-output channels are required;

- a new level of "human-computer" interactive communication, in which the user receives much broader and more comprehensive information during the communication process, which allows improving the conditions for learning, working or relaxing.

Teaching students and retraining staff using multimedia tools is one of the current issues. The concept of multimedia came into our lives in the early 1990s.

Teaching students using multimedia tools has the following advantages:

- There is an opportunity to learn the material more deeply and thoroughly;
- The desire to engage more closely with new areas of learning will increase;
- Achieve time savings as a result of reduced training time;
- The teacher does not have to be in the classroom;
- The knowledge gained is retained in a person's memory for a long time and can

be applied in practice when necessary.

Multimedia tools have a positive impact on a child's creative thinking through the following factors:

1. Visualization and Visual Images: The human brain processes visual information 60,000 times faster than text. Multimedia textbooks create a dynamic picture of events in a child, which enriches the world of imagination and creates the basis for the formation of new ideas.

2. Interactivity and Activity: While in a traditional lesson the child is a passive listener, in multimedia games and laboratories he becomes a participant in the process. For example, through virtual constructors he can create his own model, make mistakes and correct it. This process creates an environment of "free exploration".

3. Encourage Divergent Thinking: Multimedia tasks often require multiple-choice solutions. This teaches the child to look at a problem from multiple perspectives (divergent thinking), moving away from looking for a single correct answer.

The use of multimedia tools helps to solve the following tasks:

- to gain a deeper understanding of the world and the relationships between people; - to systematize acquired concepts and ideas; - to achieve a scientific understanding of nature and surrounding phenomena;

- preparation for complex and problematic questions and answers;
- to develop self-control skills.
- to form and strengthen children's motivation to learn about the world.

Multimedia animated models demonstrate processes based on moving pictures. In this case, children can themselves participation as if reaching clear acceptance they do .

Multimedia tools based on students Learning is twice as effective and can save time. Learning through multimedia can save up to 30% of time, and the acquired knowledge is retained in memory for a long time. If students receive the materials presented visually (video), their retention of information increases by 25-30%. In addition, if educational materials are presented in the form of audio, video and graphics, their retention of materials increases by 75%.

Multimedia presentation develops students' speech, thinking and memory, as well as enriches their worldview. Multimedia tools increase the level of demonstration of classes.

Multimedia from manuals not only can be used in classes , but also outside of classes. They are attached to versions prepared for separate experimental projects. As we noted above, in the development of children's worldview, the concepts given to the child are determined primarily by the level of demonstration of the available material and, depending on it, the degree to which he has mastered it. Therefore, the visual aids used in the process of classes must be unique, unique, meet the pedagogical and psychological requirements and be clearly reflected in the active activity of the educator.

In conclusion, multimedia educational resources are not just technical tools, but also a powerful pedagogical tool that shapes children's creative thinking. They develop children's skills in finding logical connections, synthesizing visual images, and making independent decisions. However, it is necessary to maintain moderation

in the use of these tools and select them in accordance with pedagogical goals. Multimedia education is the most effective way to educate future creators.

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