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THE ROLE OF MULTIMEDIA TECHNOLOGIES IN THE TEACHING OF MATHEMATICS

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Abstract
This article discusses the role of multimedia technologies in teaching mathematics. Multimedia tools, including interactive programs, video lessons, graphs and simulations, allow students to more easily and efficiently master mathematical concepts.

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Introduction

In today's developed era, the educational process is developing, inextricably linked with modern technologies. In particular, the introduction of multimedia technologies into education has fundamentally changed the processes of teaching and learning. Mathematics, on the other hand, brings many difficulties in teaching with its complexity and originality. But with the help of multimedia technologies, these difficulties can be overcome and increase the level of understanding of students. With Multimedia tools, interactive curricula, video lessons, animations and simulations, mathematical concepts can be communicated to students in a more interesting and understandable way. These technologies also allow teachers to present their classes in different forms, provide active student participation and increase their motivation. This article attempts to analyze the role of multimedia technologies in teaching mathematics and their effectiveness.

Main Part:

Multimedia technology allows you to use several methods of providing information at the same time: text, graphics, animation, videotape and sound. The most important feature of multimedia technology is its ability to influence the user in the operation of the interactive – information environment. Over the past years, many multimedia software products have been created and are being created: encyclopedias, teaching programs, computer presentations, etc.

Multimedia (in English the term multimedia, derived from the Latin words multum – multi, medium – medium, environment) is a complex of technical and software tools that allows users to work in a dialogue mode, combining various data (text, graphics, sound, video) into one single information environment. Teaching students on the basis of Multimedia tools and setting up re-training of personnel is an urgent matter of the present day.

The concept of Multimedia entered our lives at the beginning of the 90s. The method of teaching in developed countries is currently being implemented in the field of Education. Even every family has become non-recreational without multimedia tools.

Teaching students on the basis of Multimedia tools has the following advantages:

a) there is an opportunity to master the materials being given in a deeper and more perfect way;

b) the passion for close contact with new areas of education is further increased:
c) as a result of the reduction in training time, to achieve the opportunity to save time;
Unlike other forms of Information Presentation, multimedia presentation ensures a low cost of reproduction(copying) and a long shelf life, despite containing several tens of thousands of pages of text, thousands of images and images, audio and video recordings that last for several hours, animation and three-dimensional graphics. Currently, multimedia encyclopedias have been created for most academic disciplines and areas of Education.
Multimedia teaching systems and game simulators have been developed that allow the organization of the educational process using new methods of teaching. d) the knowledge gained is stored long in the memory of a person, achieving the opportunity to apply it in practice when necessary.
Mathematics has a great place in the development of a person's intellect, attention, in the upbringing of determination and will to achieve the intended goal, in the provision of algorithmic-style discipline and in the expansion of his thinking.

Explanation of mathematical problems using videos

The use of animations and video materials in explaining math issues can increase student understanding. These tools make it possible to make complex mathematical concepts clearer and more interesting.

For example:

Through video lessons available on YouTube platforms, it will be more interesting for students to learn algebra, geometry, statistics. For example, animations showing equation solving or changing geometry patterns can help students see practical examples and focus more on them. Teaching math students through games and simulations that encourage active participation will be not only effective, but also interesting. This type of Multimedia technology increases students ' reading motivation and they perceive learning as a game.

For example:

Students are given tasks to solve issues using interactive games such as Prodigy Math Game. In this game, students receive special rewards for each correct answer, as well as issues in the game being at different levels that become more complex as students ' level of knowledge increases. This game activates students and allows them to learn while playing math.
Another advantage of Multimedia technologies is that they provide an opportunity to automatically assess students ' knowledge. This allows teachers to quickly and efficiently monitor the learning process of students.

For example:

Through online platforms such as Kahoot and Quizlet, students participate in various math tests and quizzes. These platforms provide students with quick and timely responses and evaluate their results to help teachers determine each student's progress.

Conclusion:

The use of Multimedia technologies in teaching mathematics makes it possible for teachers to organize classes taking into account the individual needs of students. They greatly assist students in making the course much more lively and interactive by simplifying complex concepts. In this case, the effective application of technology is necessarily related to the qualifications of the teacher and the interest of students in technology.

References

1. https://cyberleninka.ru/article/n/ta-lim-jarayonida-multimediya-texnologiyalarining-istiqbollari
2. http://www.multimediya.uz/multimediya/
3. http://ilmiy.bmti.uz/blib/files/80/Ta'limda%20multimedia%20ilovalari.pdf
4. AL
5. Babadjonov S.S. Pedagogika oliy ta'lim muassasalari talabalarining mediakompetentligini rivojlantirish muammosini yechish yo'llari // Halq ta'limi -Toshkent, 2017.
6. Имомова Ш.М., Улугова О.В. МАТЕМАТИЧЕСКАЯ СИСТЕМА MATLAB// POLISH SCIENCE JOURNAL. 2021. ISSUE 2(35) Part 3. С.263.
7. https://cyberleninka.ru/article/n/matematikani-o-qitishda-axborot-kommunikatsion-texnologiyalaridan-foydalanish

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