



# Use of Modern Pedagogical Technologies in Teaching Mathematics in Schools

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## ABSTRACT

This article describes in detail the purpose of using modern pedagogical technologies in the teaching of mathematics in schools, expanding the field of application of computer technologies, organizing students' educational work, stimulating their activities, and using modeling programs.

## Keywords:

modern pedagogical technologies, mathematical problem, spreadsheets, function, excel.

## Introduction:

Today, the competence approach in the educational process implies the formation and development of practical skills that allow students to act effectively in situations encountered in professional, personal and everyday life, as well as strengthening the practical, applied directions of mathematical education.

The expansion of the field of application of computer technologies, the creation of information technologies in all spheres of society's life, i.e. development in production, science, education, medicine and other areas, i.e. rapid information exchange, information processing in a short time, timely access to resources leading to transmission.

## Literature analysis and methodology:

The following informational and communicative potentials are important, which determine the readiness of a modern teacher to work in the conditions of informatization of

society. In the process of computer education, education is organized, managed, and controlled according to the relationship between the student and the computer. Organization of computer-based education - establishing a connection between the student and the educational material by means of a computer. Education is designed to establish a connection between the student and the educational material.

Organization of students' educational work, stimulation of their activities is modeled on the basis of appropriate tools. Many electronic educational materials intended for use in the educational process have been created, such as electronic textbooks, electronic study guides, educational software tools, etc. They provide a certain effectiveness in education due to the presence of features such as controllability, interactive methods, elements of artificial intelligence, emotional flexibility.

Pedagogical, computer and information technologies are expressed in an integrated

system that consists of organizing and preparing the educational process, providing scientific and methodical materials, implementing the educational process, and evaluating the quality of educational results. In the present era, when new technical tools, including computers and other information technologies, are rapidly entering the teaching of mathematics, using the achievements of computer science in order to ensure interdisciplinary coherence is one of the urgent issues.

Application of computer technology to educational institutions opens a wide way to optimize the teaching process. In the next decade, the use of computers in the teaching of mathematics was carried out in several main directions. These include assessment of knowledge with the help of computers, development and development of various types of educational programs, development of mathematical games related to knowledge, etc. Competency approach to mathematical education implies the formation and development of practical skills that allow students to act effectively in situations encountered in professional, personal and everyday life, as well as strengthening the practical, applied directions of mathematical education.

The integration of our country into the world community, the development of science and technology and technologies require the young generation to be competitive in the changing world labor market, to master the sciences perfectly. This is ensured by introducing standards based on advanced national and international experiences into the education system, including teaching mathematics.

### Results:

Another direction of the convenience of computers in teaching mathematics is the modeling of certain educational situations. The purpose of using modeling programs is to provide comprehensibility of materials that are difficult to visualize and visualize when using other teaching methods. With the help of modeling, information can be presented to students in the form of computer multimedia in

graphic mode. Therefore, they tend to study mathematics in depth and show a significant degree of independence in the learning process. In order to solve the mathematical problem that arises in many cases quickly and with the given accuracy, a professional mathematician is required to know a certain algorithmic language and programming at the same time as his profession. For this purpose, in the 90s of the 20th century, mathematical systems were created that were more convenient for mathematicians. With the help of these special systems, it is possible to perform various numerical and analytical mathematical calculations, from simple arithmetic calculations to solving partial differential equations, as well as making graphs. Methodology of using modern information technologies in teaching mathematics.

In the present era, when new technical tools, including computers and other information technologies, are rapidly entering the teaching of mathematical sciences, using the achievements of computer science in order to ensure interdisciplinary coherence is one of the urgent issues. Implementation of computer technology in educational institutions opens a wide way to optimize the teaching process. In the next decade, the use of computers in the teaching of mathematics was carried out in several main directions. These include assessment of knowledge with the help of computers, development and development of various types of educational programs, development of mathematical games related to knowledge, etc.

### Discussion:

Another direction of the convenience of computers in teaching mathematics is the modeling of certain educational situations. The purpose of using modeling programs is to ensure that materials that are difficult to imagine and visualize when using other teaching methods are understandable. With the help of modeling, information can be presented to students in the form of computer multimedia in graphic mode. Therefore, they tend to study mathematics in depth and show a significant degree of independence in the learning process.

Although spreadsheets are mainly designed to solve economic problems. The tools included in it are of great help in solving problems related to other fields, for example, carrying out calculations according to formulas, constructing graphs and diagrams. With the help of an electronic table, you can solve problems based on the given algorithm, create and print various forms based on the values in the table. Entering numeric values and text elements can be made easier by using Excel's autocomplete feature. This feature is especially helpful when tabulating function values.

Calculation of function values with a certain step is found in many branches of mathematics. Using these opportunities, students of the mathematics faculty can create graphs of functions and thus clearly see the properties of some more complex functions on the screen. The function wizard in Excel helps you enter a function and its arguments semi-automatically. Using the function wizard ensures that the function is written and all its arguments are entered in the correct syntactic order. This, in turn, greatly helps students learn the properties of functions easily and quickly.

### Conclusion:

In conclusion, it should be said that the main task of the class teacher is to teach every student to think logically. It is especially important for children to overcome reading difficulties, to read with comprehension and to work independently with books, to be disciplined in doing homework, and to apply the acquired knowledge in practice. Formation of basic competencies in students in mathematics lessons is important in this regard.

Another direction of the convenience of computers in teaching mathematics is the modeling of certain educational situations. The purpose of using modeling programs is to provide comprehensibility of materials that are difficult to visualize and visualize when using other teaching methods. With the help of modeling, information can be presented to students in the form of computer multimedia in graphic mode. Therefore, they tend to study mathematics in depth and show a significant degree of independence in the learning process.

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