Advances in Science and Education, 2026, 140–142

doi: 10.70728/edu.v02.i01.033
Volume 02, Issue 01
ISSN: 3060-5415
Paper

PAPER

EFFECTIVE USE OF MODULAR TECHNOLOGIES IN TEACHING MATHEMATICS

Mukhlisaxon Abdujalilova[1,*] and Maftuna Khabibullayeva[1]

[1]Teacher of Kokand State university
[2]Student of Kokand State university

* abdujalilova248@gmail.com

Abstract

The article discusses the use of modern technologies in solving textual problems, the use of modular technologies in teaching mathematics, and gives methodological recommendations.

Key words: Pedagogy, technology, module, ICT, knowledge, skills, competence, consolidation, computer technology, Educational materials, schematic approach.

Teachers should have a deep knowledge of mathematics using various methods of teaching at the elementary level in order to expand the theoretical knowledge of school mathematics, develop logical thinking skills, form the basis of mathematics, deepen their understanding, increase students' creative research, independent work. Today, the main issue is the quality of education, and an effective way to improve the quality of education is the use of various technologies in the education system.

There are many modern teaching technologies that are widely used in teaching mathematics at the primary school level and some of them are:

- the technology of combining didactic units (PM Erdniyev) helps to master direct and inverse operations and operations at the same time, and a set of exercises based on the principle of consolidation helps to consciously and firmly acquire knowledge helps to master;

- the problem-based technology of teaching mathematics (R.G. Khazankin) allows students to check the correctness of the problem by using the methods of solving problems and checking each other;

- developmental educational technology (LS Vygotsky, L.V. Zankov, DB Elkonin, V.V. Davydov) developmental training system aimed at accelerated, intensive, comprehensive development of a person in accordance with all qualities;

- Modular teaching technology (V.M. Monakhov) can design and create the educational process in

Compiled on: January 17, 2026.
Copyright: ©2026 by the authors. Submitted to Advances in Science and Education for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) 4.0 license.

accordance with the purpose;

- computer technology of teaching, mastering computer work techniques, active participation in class, individual work, personal assistance;

- problematic educational technology;

- teaching technology on reference signals (V.F. Shatalov) grouping theory and practice in the form of blocks, mastering theoretical materials in class in the form of summary schemes, information summaries, independent research, homework;

- preliminary preparation of the first part of the acquired knowledge with explained management

- training (S.N. Lisenkova); "Development of critical thinking through reading and writing"is one of the new technologies that realizes the creative potential of modern requirements in order to increase the level of knowledge of students, that is, the quality of education.

With the help of this technology, you can solve the following problems during the lesson:

- development of students' critical thinking;

- active participation in thinking; - increasing responsibility for acquiring knowledge. Several STO strategies can be used in mathematics lessons: "Association "Venn diagram "Five-line poem "Pair, group, individual work "Extensive lecture". In recent years, the use of new pedagogical technologies, computers, electronic textbooks, interactive whiteboards in accordance with modern trends in daily lessons has been effective.

The educational system is carried out through electronic communication, information exchange, Internet, e-mail, teleconferences, online classes. The peculiarity of the use of new technologies is that they allow students to engage in creative work independently or together, search, see the results of their work, self-criticize and enjoy their achievements. gives the opportunity to get E-textbook for teachers is an open methodological system that is constantly evolving. Each teacher can fill it with materials from their pedagogical practice and further improve it. Electronic textbooks have a great role in the rational development of educational materials. Theoretical topics are widely disclosed in electronic textbooks. If the theoretical material is supplemented with various drawings in the form of graphic images, schematic approaches, then the process of reading, imagining, understanding and strengthening theoretical knowledge in the brain will be more effective.

Modular teaching - ensures independence of education in terms of knowledge content, learning speed, ability to work independently, teaching methods and styles. And "module"is the main tool of the modular program, which is a didactically developed knowledge, skill, skill and a certain content unit of its instruction, or selected education to achieve the level determined by the action program. lim data. (planned future results). In other words, a measure of human self-development. In general, the word "module"means "content and technology of teaching". Electronic textbooks are based on this modular technology, which is presented as a volume of educational material that "content of the module"gives its content. The learning content of each class is divided into modules, and each topic is presented sequentially and systematically. By working with interactive tasks in the electronic textbook, students expand their knowledge of the lesson, learn to work independently and creatively. Performs test tasks to independently check his knowledge.

The use of modular technologies in the teaching of mathematics forms skills and competencies necessary for personal development and creativity. Effective use of new ICT in the classroom:

- gives the student the opportunity to think freely;

- Mind - develops the game;

- increases creative activity;

- collective action

- educates to action;

- improves language skills;

- Enhances soul searching.

As President Sh. Mirziyoyev noted, "in today's world, young people are in great need of new education related to information technologies according to international standards it is important to optimize the educational process and increase its effectiveness. The process of informatization of education makes great demands on science teachers in the field of wide use of new information technologies.

In short, with the help of new technologies, it is possible to increase the knowledge of students and improve the quality of education. School is the support and cornerstone of any nation, it contributes to the all-round growth, spiritual and

cultural development of any nation. There are many modern teaching technologies that are widely used in teaching and working on text problems at the primary school level.

References

1. Ахмедов, Б. А. (2021). Задачи обеспечения надежности кластерных систем в непрерывной образовательной среде. Eurasian Education Science and Innovation Journal, 1(22), 15-19.
2. Akhmedov, B. A., Shuhkrat, K, (2020). Cluster methods of learning English using information technology. Scientific Progress, 1(2), 40-43.
3. Akhmedov, B. A., Majidov, J. M. (2021). Practical ways to learn and use the educational cluster. Экономика и социум, 2(81).
4. Akhmedov, B. A. (2021). Cluster methods for the development of thinking of students of informatics. Academy, 3(66), 13-14.
5. Akhmedov, B. A. (2021). Innovative cluster model for improving the quality of education. Academic Research in Educational Sciences, 2(3), 528-534.
6. Ахмедов, Б. А. (2021). Динамическая идентификация надежности корпоративных вычислительных кластерных систем. Academic Research in Educational Sciences, 2(3), 495-499.
7. Majidov, J. M., Akhmedov, B. A. (2021). Use of multimedia technologies as a means of increasing students motivation to learn a foreign language. Ekonomika i sotsium, 3(82).
8. Akhmedov, B. A. (2021). Information technologies in Cluster systems: a competence approach. Universum: технические науки, 4 (85).