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Herald pedagogiki. Nauka i Praktyka (HP) publishes outstanding educational research from a wide range of conceptual, theoretical, and empirical traditions. Diverse perspectives, critiques, and theories related to pedagogy – broadly conceptualized as intentional and political teaching and learning across many spaces, disciplines, and discourses – are welcome, from authors seeking a critical, international audience for their work. All manuscripts of sufficient complexity and rigor will be given full review. In particular, HP seeks to publish scholarship that is critical of oppressive systems and the ways in which traditional and/or “commonsensical” pedagogical practices function to reproduce oppressive conditions and outcomes. Scholarship focused on macro, micro and meso level educational phenomena are welcome. JoP encourages authors to analyse and create alternative spaces within which such phenomena impact on and influence pedagogical practice in many different ways, from classrooms to forms of public pedagogy, and the myriad spaces in between. Manuscripts should be written for a broad, diverse, international audience of either researchers and/or practitioners. Accepted manuscripts will be available free to the public through HPs open-access policies, as well as we planed to index our journal in Elsevier's Scopus indexing service, ERIC, and others.

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INNOVATIVE METHODS OF TEACHING MATH

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Abstract: The article discusses modern methods and techniques of teaching mathematics, as well as methods for educating a competitive person who owns the universal competencies necessary in various life circumstances.

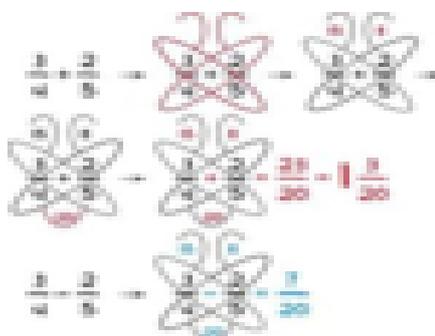
Keywords: method, guidelines, teaching aids, technology, learning visualization.

Society does not stand still, it is developing rapidly. Changes that regularly occur in the life of society affect all areas of life. Education is an essential component that people need at the present time. Life guidelines set the newest tasks of the learning process. One of the main issues of the progression of the domestic sphere of education is the education of a competitive person who owns the universal competencies necessary in various life circumstances.

Innovative teaching methods are the goal of many educators. Teaching students in a way that keeps them engaged and interested in mathematics can sometimes be a major challenge.

Visualization, technology tools and active learning is a new and innovative teaching method that is an essential skill for elementary and middle school teachers. Research on the cognitive capabilities of the brain has shown that certain methods and approaches can actually improve the learning process. Applying innovative teaching methods and attention management in the classroom is a win-win for both students and teachers.

Visualization is a particularly good teaching strategy for teachers. Visualization skills help students understand, recall, and critically think about the subjects they are learning. Smartly Controlled Technology in the Classroom: Computers, tablets, digital cameras, videoconferencing, and GPS devices can enhance a student's learning experience. If, when explaining the topic, adding and subtracting fractions with different denominators, apply the following method:



Then students will learn the topic much faster, as they visually see the actions that they do with fractions.

Possible uses for video games for teaching math using Skype or ZOOM to communicate with audiences or guest speakers from around the world. You can also create multimedia projects that allow students to study the subject with the help of films, audio materials.

Active learning is coaching with peers, creating a group to discuss and solve problems together: students are divided into small groups to conduct research on the Internet, it is worth outlining ideas and discussing ways to solve a problem. Groups upload their work to the whiteboard site, where the teacher can review it. At the end of the lesson, each group shares what they have learned with their peers. Innovative teaching methods can help high school students get the most out of their education.

When teachers decide to use innovative materials in their classrooms, a lot of questions arise. Teachers need to be helped to improve methods and connect their beliefs with effective innovations. Almost all of these teachers came from a school where mathematics consisted of a set of facts and skills that had to be memorized or mastered by a relatively homogeneous group of students taught using a lecture-based approach. Middle and high school students require a math education that goes beyond what they have required in the past. This is a very serious problem for today's math teachers.

Today, every person needs to be proficient in computer technology, quickly navigate the environment and think freely. The use of innovative technologies in teaching mathematics is explained by the need to solve the problem of finding ways and means of activating the cognitive interest of schoolchildren, developing their creative abilities, and stimulating mental activity.

When computer tools are used in teaching, the center of activity is the student, who builds the process of cognition from his individual abilities and interests. The teacher in such lessons acts as an assistant and consultant, stimulating activity, independence and initiative.

In the system of training with the use of innovative technologies, two types of activities are distinguished - teaching and learning. The first is characterized by the direct interaction of schoolchildren with a computer. The computer evaluates the correctness of the completed task and provides the necessary assistance. Thus, learning takes place without the participation of a teacher. The second type is characterized by the interaction of the teacher with the computer. The computer helps the teacher to manage the learning process, gives recommendations on the appropriateness of applying specific teaching influences to certain students.

In teaching mathematics, a computer can be used at all stages of the lesson - when explaining new material, consolidating, repeating and controlling. At the stage of explaining new material, the educational type of activity is quite effective. When studying a new topic, it is possible to conduct a lesson-lecture using computer presentations that allow students to focus on the significant points of the information presented.

When solving text problems, a learning type of activity is implemented. Various

programs are being worked out, the purpose of which is to teach schoolchildren how to solve problems. Programs can contain tasks of different levels of complexity, as well as tips, reference materials and algorithms.

Tests are used to control knowledge. There are two forms of organizing tests, which can be conditionally called "write the correct answer" and "choose an answer from the options offered."

Innovative technologies for teaching mathematics also make it possible to create various demonstration and teaching technologies, games, and models. Such effective developments form a positive attitude of schoolchildren to learning, suggest an unobtrusive way of providing assistance and the opportunity to choose an individual pace of learning, and contribute to successful preparation for the final certification.



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