



## THE POSSIBILITY OF USING INNOVATIVE TECHNOLOGIES IN EDUCATION

Saidova Mohinur Jonpolatovna

Doctor of Pedagogy (DSc), Associate Professor, Bukhara State Pedagogical Institute, Department of "Theory and Methodology of Primary Education"

### Summary

Here was written about the importance of and the types of innovative technologies using in math lessons, the main idea of innovative technologies.

**Keywords:** Lesson, sum, math, teaching methods, innovative technologies, primary school.

The effective use of new innovative technologies in the process of teaching subjects in secondary schools in the educational system is a topical issue in our country. It is precisely these new innovative technologies are considered an essential tool of education that not only allow the formation of knowledge, skills and experience in students, but also satisfy their interest in the development, knowledge of personal characteristics.

In pedagogical and psychological research, the same thing is noted, the transition of the lesson in schools on the basis of new innovative technologies has a strong impact on the development of theoretical, creative and reflexive thinking, speech activity of students. In the memory of the student, he or she, or this phenomenon, the figurative expression of the process, enriches the teaching material and contributes to its scientific assimilation. This imposes a number of tasks before the teachers of the upcoming primary class.

The following can be attributed to the innovative technologies that the future elementary teacher can use in the process of elementary mathematics classes: The word "innovation" is derived from the Latin word meaning "innovation, change, update". The technology that stands on the highest point of innovative technologies is considered to be this pedagogical technology.

Pedagogical technology is a broad concept in relation to other innovative technologies, it forms the general state of the lesson, its holistic base. Here we can understand that in the process of teaching mathematics in the elementary school, the use of pedagogical Technologies is said to introduce each stage of the lesson into a certain system.



From the beginning-to-ending molding of the lesson, taking into account each element is organized based on a certain pattern, planned and visually, all assignments, ranging from how students sit in a row. I.P. Volkov interprets it as “pedagogical technology - planned training. For example, you want to teach addition and subtraction among 10 in Class 1.

If you have 30 students in your class who pass the mathematics course, you can organize the lesson unconventional using either 5x6 or 6x5 technology. In order to organize a lesson based on this technology, the teacher will put 5 tables, and around each table will put 6 chairs (or vice versa). In groups, the captain will be appointed. Assignments will be also planned much earlier and should have a certain system and generality.

It should be remembered that the lesson can not be an unconventional lesson, the use of various colorful visuals, didactic games, several interactive techniques. In order to be an unconventional lesson, it is necessary to organize the lesson on the basis of a certain pedagogical technology.

Another of the innovative technologies that can be used in the course process is the interactive method. Interactive method means that without much effort, achieve a high result. It is necessary that the method of interactive techniques used in elementary mathematics classes is very diverse.

### **Method of “Brain Storming”**

This method is a widely used method for solving problems on a particular topic, and it encourages participants to develop certain skills and skills in a broad and comprehensive way of thinking about the problem, as well as the positive use of their own imagination and ideas. In the process of training organized with the help of this method, there is an opportunity to find several original solutions to voluntary problems. The “Brain storming” method creates conditions for identifying certain concepts within the framework of Selected Topics and choosing ideas that are alternative to them.

In the course of the lesson, the use of the “Brain storming” method requires compliance with the following rules:

1. Motivate the students to think extensively within the framework of the problem, achieve their logical expression of thoughts.



2. The opinions expressed by each student are encouraged. Among the expressed opinions, most of the receipts are selected. The stimulation of thoughts leads to the birth of new thoughts in the queue.

3. Each schoolchildren can be based on his personal thoughts and change them. Summarizing, categorizing or changing the previously expressed opinions lays the groundwork for the formation of scientifically based opinions.

4. In the process of training, it will not be allowed to control the activities of students based on standard requirements, to evaluate the views expressed by them. When their thoughts are evaluated, the students focus their attention on protecting their personal thoughts. As a result, new thoughts are not put forward. It is desirable to abandon the evaluation of their activities, bearing in mind that the main goal of using the method is to motivate the educators to think broadly about the problem.

**For example:** (a system of questions that forces students to think.)

-What do we do in the lesson of mathematics?

-In the lesson of mathematics, we solve an example and a problem, perform various mathematical tasks. -In what lesson do we learn to count?

- In the lesson of mathematics.

- Who will list correctly and in reverse from 1 to 10?

-1 2 3 4 5 6 7 8 9 1 0

10 9 8 7 6 5 4 3 2 1 and so on.

### "Cluster" method

The cluster (Bud, ligament) method is a certain form of pedagogical, didactic strategy, which helps the educators to create conditions for free, open thinking and freely articulating personal thoughts about voluntary problems (subjects). This method requires the identification of a structure that gives an opportunity to think about the relationship between different ideas. The "cluster" method is considered a form of thinking, which is not oriented to a specific object. Its use is carried out in connection with the principle of functioning of the human brain. This method serves to ensure that the thinking activity remains one-stop until a particular topic is thoroughly and thoroughly mastered by the students. The main feature of interactive techniques is that it allows you to focus more on one review, creating a better picture of it. For example, the cluster method can also be used in the process of passing a new topic, if at the end of a large topic or section, then in the elementary mathematics lessons. For example, at



the end of the Department of performing arithmetic operations within 10, the use of this method gives a good result. Students will try to record exactly what they are familiar with in the process of passing this section, one after another, in memory of each other, even examples and ways of their solution. During the use of the cluster method, it is necessary to give readers an understanding of its feature and importance. For example:

- to illuminate what you think after reading the base concept;
- to write opinion which is not analyzed in orthographic terms;
- do not stop writing the idea until the given time has come to the end, until for a while nothing is formed in your imagination, to remember, draw a picture of something,
- to pay attention to the relevance and diversity of ideas,
- when the time is running out, gather the necessary basic ideas around the concept and form a beautiful text.

For example:

To explain interactive techniques through tables in a beautiful way, we use educational tools for delivery. In many literature, educational tools are also referred to as graphic organizers. “KLW”, “fish skeleton”, “t chart”, “Vennel chart”, “Insert Chart”, “lily flower” are examples of these.

Another of the innovative technologies that the teacher needs in order to explain the topics in the process of the lesson is information technology.

Information technology is an individual-oriented technology, lies in the development of motivation, the formation of knowledge and professional skills, ensuring the attitude of students to the educational process as a value, increasing activity, the formation of self-awareness and independence.

Currently, the following basic information technologies are widely used and studied in education:

<b>1. Power Point productions</b>
<b>2. Electronic educational and methodical complexes</b>
<b>3. Electronic educational-methodological materials</b>
<b>4. Electronic guidebooks</b>
<b>5. Electronic textbooks.</b>
<b>6. Multimedia</b>
<b>7. Multimedia books</b>
<b>8. Flash productions</b>
<b>9. Hypermedia books</b>



**Electronic facilities of teaching.** The process of teaching consists in the interaction of the educator, the educator and the means of teaching. The modern computer tools and information technology options allow teaching aids to load part of the duties of the teacher and the educator.

**Electronic educational and methodological complexes**-educational and methodological complex consisting of didactic, programming and technical interactive complex of teaching in the modern Information Technology Environment and providing educational materials on the basis of Computer Technology, audio-video means.

**Educational-methodical materials in electronic form**- electronic textbooks, electronic manuals, electronic lecture materials, electronic libraries, compatible (GD, Flash, etc.) audio visual materials in capacitance, interactive training courses, laboratory tasks for conducting computing experience on the computer, systems for testing.

**Electronic textbook** is a means of reading designed to use teaching methods based on educational literature or computer technology aimed at the application of teaching methods based on computer technology, the acquisition of independent education, teaching materials in a particular subject, the effective assimilation of scientific data in all aspects.

**E-learning literature** are educational resources that are able to collect, describe, update, Store, present and control information in an interactive way based on modern information technologies.

Multimedia is a technique or software consisting of a set of sound, video and various animation effects designed for a computer. Sound, video, animations can be called "multimedia elements".

**Multimedia** technologies integrate many types of information in themselves. For example:

- a) images from the scanner;
- b) recorded sound, musical effects and music;
- d) videos with complex video effect
- e) different animations

It remains to say that in addition to multimedia tools, a projector, an interactive whiteboard can also be inserted.

Again, it is worth noting that the knowledge gained through multimedia allows a person to be stored long in memory and applied in practice when necessary.



In general, by using multimedia, the following training effectiveness is achieved:

- . mastering knowledge is not mandatory, but is carried out at the discretion of the reader;
- . multimedia is accepted by the reader with pleasure, and joy in turn change his attitude to educational science to the positive way;
- . the opportunity to expose the reader in relation to others arises;
- . a new objective criterion appears in the reader to evaluate his performance: whoever knows a lot and can use it successfully, he will win;
- . there is an opportunity to give freedom to one's own fantasies, a feeling of fear, a feeling of being laugh at others, a feeling of fear of getting a bad evaluation retreat;
- . healthy competition and competition environment in the team;
- . students strive to independently overcome the existing difficulties;
- . the inter-subjectivity gives birth to the possibility of real implementation of the link.

**Multimedia books** is a textbook, software tool consisting of text, audio, static-dynamic and video-visual information, concentrated into one media carrier (for example, a CD-ROM drive).

Flash is a tool of creativity of the Web designer, it is such a program that with its help it is possible to prepare various presentations, small games, multimedia web pages, dynamic sites and other desired multimedia products. The size of the products made with the help of Flash will be small, so it is also very convenient to place the prepared files on the web pages or send them across the internet.

In the flash, basically, the following are prepared::

- multiplicative roller and cartoon characters;
- videos;
- games;
- presentations.

The Microsoft Power Point program is created under the Windows Shell, which makes it one of the most convenient software tools for working with presentations (presentations, that is, presentations). This can be done through the program to create all the visual weapons and in some places also as a database.



In some cases, it is also possible to perform the functions of managing and supporting these programs from multimedia devices, sending them to demonstration devices. To work on the program, let us get acquainted with the basic concepts that we are new to.

**The presentation** is a collection of slides and special effects, which are stored in a single file in the form of a display, a distributed material, a lecture plan and a synopsis.

**A separate frame of the slide presentation**, which includes text, titles, graphics and diagrams. Restored slides with Power Point tools can be printed on a black-and-white printer, or make 35-millimeter slides in Photoplay with the help of special options.

**Hypermedia books** is an improved form of multimedia books, in addition to the basic text, This is a textbook in which the user can refer to various additional sources. It remains to be noted that students will have the skills to use e-mail in the learning process.

We can introduce didactic games into the ranks of assistant innovative technology for the upcoming elementary teacher. The important aspect of didactic games is that it serves for a visual and interesting delivery of the creative and recalling type of exercises that are given in the textbook. For example: picking apples on the tree, solve examples, a game of travel, a mysterious crate, a step by step, a chain, a scythe, a quick answer, a builder, a game of night and day from the sentence. Step by step is example from the game of stairs: (The class is divided into two groups. Students from each group come out one by one and quickly solve the example given to them. Objective: which group will win the first deducted place in the last example).

At present, the interest and attention to the application of innovative technologies, pedagogical and information technologies in the educational process are increasing day by day. One of the main reasons for this is that in traditional education, students are taught only to possess ready-made knowledge, modern technologies in primary education teach them to search for the knowledge they possess, independently study and analyze, and even draw conclusions themselves. The future primary class teacher creates conditions for the development, formation, acquisition and education of the individual in this process.



In a word, the introduction of modern pedagogical, innovative and information technologies into the educational process, while improving the quality and effectiveness of primary education, requires the popularization of advanced work experiences. In the process of mathematics lessons, it is also necessary to use the necessary and necessary innovative technologies and teach it to be applied even in the process of life.

## References:

1. Azizkhodjaeva N.N.Y. Pedagogical technologies in improving the effectiveness of the educational process-T.: 2007. p. 14-23
2. Alimov R.X, Good-Natured A'.T, Khakimov A.F, Yulchieva G.T, Azamatov A.X, Atajanov U.A. Information systems.- T.:2013.- p. 38 – 50
3. Alimov K.T. Problemi sozdania uchebnikov specialnix dissiplin novogo pokoleniya v sfere srednego specialnogo i professionalnogo obrazovaniya. Monographs. - T.: Science, 2004. - 143 p.
4. Dominov D.Z teaching practical training from computer networks on the basis of modern information and communication technologies. BMI.- Tashkent, 2012. 10 p.
5. Alimov K.T.Uchebno-Metodicheskoe obespechenie specialnix dissiplin/ / continuing education.2004. №3 p. 68-75