



## THE ROLE OF LOGICAL ISSUES IN PRIMARY SCHOOL MATHEMATICS LESSON

Soliyev Ilhomjon Sobirjonovich

FSU, PhD Doctor of Philosophy in Pedagogy

Xoshimova Xulkaroy Xoshimjon qizi

FSU, master

<https://doi.org/10.5281/zenodo.7894454>

**Abstract:** A student who has mastered mathematics well has a high level of analytical and logical thinking. Not only in solving examples and problems, but also in various situations in life, he develops the ability to quickly make decisions, conduct discussions and negotiations, and do things step by step.

**Key words:** number, methods, logical problem, students, interest, critical thinking;

Our society's demand for modern schools consists in maturing a person who can creatively solve a scientific, social, production issue, think critically, defend his point of view and faith, systematically replenish and renew his knowledge through independent learning, and can apply them in life.

The process of primary education teaches children to form the potential, mental development, saturation, communicative literacy and potential for self-realization, to be physically healthy, to feel the beauties of material existence, to be able to enjoy beauty and elegance, to assimilate and practice National Customs, to adhere to them.

In the elementary school mathematics course, solving problems, on one side, is the stage of forming the initial qualifications of building mathematical models of the being that surrounds us, while on the other hand, students have logical thinking, self-confidence, patience, overcoming difficulties with perseverance and are the first steps to solve problems that occur in their future activities. It is known that solving problems means fulfilling the question requirement through the logical sequence of arithmetic operations and operations on numbers, quantities, relations, which are directly or indirectly specified in its condition.

The fact that the teacher makes it possible for students to explain issues through examples found in their daily lives helps them to understand the essence of the issue.

For example:

There are five apples on the tree Anwar cut off one. How many apples are left on the tree?

After creating an understanding of the problem in the imagination of the students, they carry out the stage of preparation for solving simple problems. At this stage, using more pictorial problems that occur in their daily life will greatly help students to understand the problems. Because when we express the problems verbally, students perceive the conditions and requirements of the problem as a whole, as a result, they cannot determine which arithmetic operations should be used to solve the problems. formation of independent problem-solving and problem-solving abilities does not cause them difficulties in solving two-action problems in higher classes. In mathematics lessons, logical problems are solved in order to strengthen the learned topics and develop students' independent thinking skills. In the implementation of this goal, special attention should be paid to choosing a logical issue.

For example: After the topic of triangles and their types, it is appropriate to solve the following type of problems.

Issue 1. The perimeter of a triangle is 21 cm, one side is 2 times shorter than the second side, and the third side is 5 cm longer than the first side. Determine the lengths of the sides of this triangle.

Issue 2. 21 cm of the triangle, one side is 3 times shorter than the second side, and the third side is 6 cm longer than the first side. Find the lengths of the sides of the triangle.

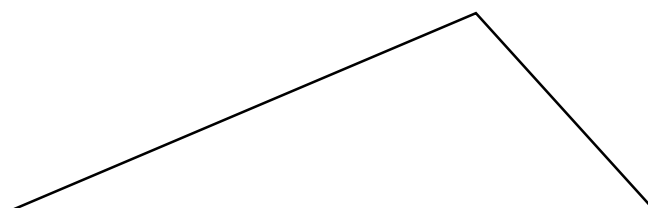
Issue 3. One side of a triangle is 2 times longer than the second side, and the third side is 1 cm shorter than the second side. If the perimeter of the triangle is 19 cm, find the lengths of the sides of the triangle.

If these problems are solved in different ways, the students are given the following by the teacher:

- how many solutions does the problem have;
- does the problem have a unique solution;
- what kind of triangle is the triangle formed in the solution of the problem according to its sides;
- in the condition of the problem, what number is the perimeter of the given triangle, the problem will not have a solution, only if the questions are completely answered, then the efficiency of the lesson will be high.

We will mention the methods of solving problem 1 above.

Solution: Method 1.



$$R=21$$

$$1 \text{ side } x=4$$

$$\text{Side 2 is } 2x=8$$

$$\text{3rd side is } x+5=9.$$

According to the condition of the problem, we have the following equation.  $x+2x+x+5=21$ ,  $4x+5=21$ ,  $4x=21-5$ ,  $4x=16$ ,  $x=4$ .  $R=4+8+9=21$ .

After analyzing the resulting solution in detail, we ask the students the following questions. How to solve the problem if the other side of the triangle is defined by  $x$ .

Pupils should answer this question by solving the problem as follows.

In mathematics lessons, the teacher, taking into account the cognitive capabilities of schoolchildren, chooses those ways of cognition by which he will most effectively be able to equip them with mathematical knowledge and skills, create a system of mathematical concepts and form the ability to use the knowledge gained in practical activities. The methodology of teaching mathematics in the primary grades implies a metered presentation of new material. It is divided into logically completed small parts. When choosing pedagogical methods, the individual capabilities of each child, the availability of educational material, the availability of technical and visual teaching tools are taken into account. When explaining new material, the teacher needs to associate it with previously covered topics. To do this, the teacher involves students in joint work, encouraging them to reproduce existing knowledge,

to rely on their past learning experience. At the same time, illustrative tables, subject manuals, didactic handouts, drawings, diagrams and other elements of visibility are widely used. Also, in order to increase the activity of students in the classroom, various methods are used: problem, explanatory-illustrative, logical, the method of independent work, didactic play, non-standard types of lessons, tests, as well as various forms of educational activity. Method and technique may change places. But regardless of this, the teacher is obliged to include in the structure of his lesson this or that technique, method. As a result, students will form an interest in the educational process, increase activity, which is of no small importance for the teacher in his work.

Now consider all the methods separately, let's try to identify the positive and negative sides of a particular technique.

#### **Problem methods.**

The problem method is a good method in mathematics. Students are given a problem related to the topic, and they try to solve and find a more effective way. This technique develops the intellectual abilities of students, and also increases critical thinking. The negative side of this method is that not all students may be interested in the topic, and the method used by the teacher is not very suitable for passive students.

#### **Explanatory and illustrative method.**

In this case, the teacher gives a sample of knowledge, for example, shows how to solve an example or problem, and asks children to reproduce it, that is, to solve the same example, the same problem on their own.

#### **The method of independent work.**

When using this method, children under the guidance of a teacher themselves are looking for ways to solve new problems for them. To do this, the teacher offers problem situations, problems for logic and ingenuity, etc.

Primary school age is characterized by brightness and immediacy of perception, ease of entry into images. Children are freely involved in any activity, especially in play. One of the effective means of developing interest in an educational subject is a didactic game:

- helps to relieve the feeling of fatigue;
- reveals the abilities of children, their individuality;
- enhances involuntary memorization.

Thus, the inclusion in the lesson of techniques that make the learning process interesting and entertaining, creates a cheerful working mood in children, facilitates overcoming difficulties in mastering the educational material. A variety of game actions, during which a particular mental task is solved, support and strengthen children's interest in the educational subject. Carried away, children do not notice that they are learning. Even the most passive of children are included in the learning process with great desire, making every effort.

#### **References:**

1. Bikbayeva N.U va boshqalar. Boshlang'ich sinflarda matematika o'qitish metodikasi.- Toshkent: O'qituvchi, 2007.
2. Bikbayeva N.U va boshqalar. Matematika 3. – Toshkent: O'qituvchi, 2012.
3. Boltayev J, Qodirov A. Boshlang'ich sinflarda matematikadan sinfdan tashqari ishlar.- Toshkent: O'qituvchi, 2002.

4. Bahromov F, Burxonov S, Xudoyorov O'. Ming bir boshqotirma.-Toshkent: Sharq, 2014.
5. Jumayev M.E. va boshqalar. Matematika o'qitish metodikasi (kasb-hunar kollejlari o'quvchilari uchun o'quv qo'llanma) – Toshkent: Ilm-Ziyo, 2003.
6. Soliyev I., Ergasheva D. OUR FAVORITE WAYS TO TEACH FAIRY TALES //International Bulletin of Applied Science and Technology. – 2023. – T. 3. – №. 3. – C. 338-342.
7. Turg'unboyev B., Ergasheva D. MUSTAQIL ISHLARNI TASHKIL ETISH-BOSHLANG 'ICH SINF O 'QUVCHILARI O 'QUV-BILUV FAOLIYATINI FAOLLASHTIRISH VOSITASI SIFATIDA //Евразийский журнал социальных наук, философии и культуры. – 2023. – Т. 3. – №. 1 Part 1. – C. 162-164.
8. Ergasheva D. BOSHLANG 'ICH SINF O 'QUVCHILARIDA TO 'G 'RI O 'QISH KO 'NIKMALARINI SHAKLLANTIRISH //Science and innovation. – 2022. – Т. 1. – №. B8. – C. 1675-1678.
9. Soliyev I. S., qizi Ergasheva D. S. BOSHLANG 'ICH TA'LIM FANLARINI O 'QITILISH JARAYONIDA SHARQ MUTAFAKKIRLARI ME'ROSIDAN UNUMLI FOYDALANISH //RESEARCH AND EDUCATION. – 2022. – Т. 1. – №. 8. – C. 16-20.
10. Sobirjonovich S. I. et al. FAIRY TALES AND THEIR ROLE IN EDUCATION OF PRESCHOOL CHILDREN //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2022. – C. 150-155.
11. Soliyev I., Sobirova N. MAKTABGACHA YOSHDAGI BOLALARDA IJODIY QOBILIYATLARNI RIVOJLANTIRISH. MAKTABGACHA YOSHDAGI BOLALARNING MUSIQIY VA TEATR TA'LIMI //Бюллетень педагогов нового Узбекистана. – 2023. – Т. 1. – №. 3. – C. 91-94.