
"DEVELOPMENT OF STUDENTS' THINKING SKILLS IN ELEMENTARY MATHEMATICS LESSONS"

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Annotation.

The purpose of mathematics lessons in elementary school is to develop student's creative thinking abilities, to expand the scope of thinking, and to cultivate interest in mathematics. The article discusses the development of student's thinking skills in elementary mathematics classes.

Key words.

Mathematics, competence, knowledge, lesson, matter, didactic game, TIMSS.

Derived from the Greek word mathematics, it is the science of knowledge based on clear, logical observations. In the centuries-long history of the development of mathematics from the earliest times to the present, 4 main periods of its development are noted:

1. The period of the emergence of mathematics related to the summation of initial factors: In this period, mathematics as a separate science does not yet have its subject method, but only some facts are collected from mathematics. An example of this is ancient Egyptian, Babylonian, Chinese and Indian mathematics.

2. Period of elementary mathematics. This era was founded by ancient Greek mathematicians and continued by Eastern scholars in Asia Minor, including Al-Farghani, Abu Ali ibn Sina, and Ulughbeks.

3. The period of mathematics of variable quantities.

4. The era of classical higher mathematics.

A lesson is a historical, complex form of mathematics teaching organization at school, verified by many years of experience and meeting the basic requirements of

the present time. A lesson refers to the orderly activities of the teacher and students aiming at one goal. During the lesson, students learn theoretical information from mathematics, calculation skills, solving problems, performing various measurements, that is, all educational work is performed in the lesson. The unique aspects of the mathematics lesson in elementary grades are that, along with the arithmetical material, elements of geometry are also studied.

Today, raising a mature generation is one of the most important tasks. Fulfillment of this task mainly imposes a great responsibility on the profession of pedagogue. For this purpose, great attention should be paid to the education of young people. Self-study from elementary school has a good effect. For this reason, the ability to interest students in mathematics in elementary grades is considered as one of the main goals of forming feelings of love for this subject. The purpose of mathematics lessons in primary grades is to develop students' ability to think creatively, expand the scope of thinking, and cultivate interest in mathematics.

Mathematics classes in grades 1-4 serve as a foundation for higher grade mathematics in general secondary school. In accordance with this, the elementary concepts necessary for later mathematics and other subjects are taught in the primary class. By providing mathematical knowledge related to everyday life in the process of solving examples and problems in primary education, their worldview, thinking ability and life knowledge increase. The peculiarity of mathematics lessons is the abstractness of the educational material. Therefore, it is appropriate to use visual aids and active methods of teaching during the lesson.

Various educational tasks are solved for students through mathematics lessons in elementary grades. They are as follows:

1. Observability, intelligence;
2. A critical look at the environment;
3. Initiative;
4. Responsibility and good conscience;
5. Correct and clear speech;
6. Accuracy in calculations, measurements and records;
7. Hard work.

Today, mathematics is one of the most important subjects for modern development with a great history in our country. From the land where Khorezmi, Fergani, Beruni, and Ulugbeks grew up, their followers are also growing up. In accordance with the decision of our President on July 9, 2019 "State support for the further development of mathematics education and sciences", special attention has

been paid to the science of mathematics. In addition, after the adoption of the decisions "Improving the quality of education in the field of mathematics" on May 7, 2020, the science of mathematics has been further improved. Competencies related to the subject are formed in the teaching of mathematics, taking into account the age characteristics of the students. Competence - Latin *competio* - means I am achieving, I am worthy, I am worthy. Competence - knowledge and experience in a subject or field. The curriculum includes subject-related competencies that are formed in elementary school students:

1. Communicative competence
2. Competence to work with information
3. Self-development competence
4. Socially active citizenship competence
5. National and universal competence
6. Mathematical literacy, being aware of science and technology news and the competence to use them.

Mathematical literacy means the ability to make personal, social, economic, and professional plans based on accurate calculations and use them in everyday life. Students entering the 1st grade have very few ideas about mathematics. Being able to interest them in this subject requires skill from the pedagogue. To determine their thinking skills, the teacher uses the following questions:

1. How long does he know how to count?
2. How many numbers can he add?
3. How many numbers does he know how to subtract?
4. Can it use $>$, $<$, $=$ symbols?
5. Can this find the unknowns in the given addition and subtraction with unknowns?
6. What figures does he know and draw?
7. How many numbers can he write?
8. Can he distinguish right, left, less, more, heavy, light, equal?
9. Can he deal with money, price, hour, minute, length, weight measurement units?

In elementary grades, the most basic tool that serves to form thinking and thinking ability is the problem. A problem is a natural language expression of situations that occur in our daily life. Simply, after the teacher reads the conditions of a problem to the students, they begin to imagine the conditions of this problem and carry out the process of working depending on life. In the process of problem

solving, they face simple and complex problems. Students may encounter situations that are a little unclear in the process of working on a complex problem. In this case, the teacher helps to write a short note on the problem and explains the real essence of the problem.

In addition, students' mastery of geometrical materials creates a basis for them to observe the environment, events and processes, differentiate, think, base their own conclusions, and speak in mathematical language. In today's developing age, changes are taking place in every field of science. Elementary mathematics textbooks have also been published. Updated textbooks invite students to think more and research on them. The interesting examples-problems given in them encourage students to be interested. Tools to encourage students to think include:

1. Active methods of teaching.
2. Use of visual aids.
3. Didactic games.
4. Extracurricular activities.

In order to assess the mastery level of knowledge acquired by elementary school students in mathematics and natural sciences, the Cabinet of Ministers of the Republic of Uzbekistan "On measures to organize international studies in the field of education quality assessment in the public education system" In accordance with the decision, it was decided to introduce the TIMSS international survey in Uzbekistan, and currently PISA, PIRLS international assessment programs are being used in practice. The TIMSS international assessment program assesses the level of mathematics and science literacy of students in grades 4-8. It is planned that the TIMSS program will be implemented in 2023.

International assessment programs have entered the educational system in order to further develop the knowledge and thinking ability of the youth of our modernizing country, and to prepare them correctly and consciously for life. The main purpose of these programs is to further improve students' literacy, mathematical and natural knowledge, and to determine the ranking indicators between countries.

REFERENCES:

1. Jumaev. M.E. "Practicum on the methodology of teaching mathematics in primary grades". Tashkent. "Teacher" 2004.

2. Jumaev. M. E. "The theory and methodology of developing mathematical concepts in children." Tashkent. "Ilm Ziya" 2005.

3. Decision of the President of the Republic of Uzbekistan "On the further development of mathematics education and sciences" in accordance with the decision of the President of the Republic of Uzbekistan No. PQ-4387 dated 07.9.2019 and No. PQ-4708 dated 05.7.2020. <https://lex.uz>.

4. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 8.12.2018 No. 997 "On measures to organize international studies in the field of education quality assessment in the public education system". <https://lex.uz>.

5. N.U.Bikbaeva, R.I.Sidelnikova, G.A.Adambekova "Methodology of teaching mathematics in primary grades" Tashkent. "Teacher" 1996