



## **PEDAGOGICAL OPPORTUNITIES OF FORMING MATHEMATICAL LITERACY SKILLS OF PRIMARY SCHOOL PUPILS**

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### **Abstract:**

The article focuses on the formation and development of the system of mathematical knowledge and skills necessary for mathematical literacy in elementary school students. The essence of mathematical literacy as an activity is revealed, such as conducting mathematical reasoning, applying mathematical concepts, methods, facts and tools.

**Keywords:** mathematics, reasoning, problem solving, mathematical literacy, context, mathematical concepts and symbols.

The integration of our country into the world community, the development of science, technology and technology prohibits the young generation from perfectly acquiring subjects to be competitive in a changing world, providing for the introduction of international expertise and templates in the education system, including teaching mathematics.

Mathematics is the basis for knowing the world, the world, and plays a major role in revealing the unique laws of events and events around us that it is impossible to imagine the development of science and manufacturing without mathematical knowledge. That is why mathematical culture is a component of universal culture[5].

The modern goals and objectives of the development of mathematical literacy include:

- the formation and development of a system of mathematical knowledge and skills necessary for students to apply in the daily activities, to continue learning and learning subjects;
- formation of a person who can successfully work in a rapidly developing society, think clearly and clearly, critically and logically;





It consists of appreciating national, spiritual and cultural heritage, rational use and preservation of natural resources, and educating mathematical culture as a component of human culture[6].

TimSS - an international study of the quality of education in mathematics and natural sciences, organized by the International Association for the Evaluation of Educational Achievement (IEA), will help students compare the level and quality of their knowledge of mathematics and natural sciences in different countries and identify differences in the national education system.

When organizing mathematics lessons, you will be required to focus more on practice than the theory and to some extent abandon the approach based on giving students ready-made learning materials. In mathematics classes, it is recommended to use interactive methods such as keys, research, projects, and small learning discoveries. Students are required to use scientific research methods such as observation, experimentation, measurements, analysis (analysis) and synthesis, induction and deduction, comparison and analogue in the development of small research skills. It is important not only to develop students' knowledge and skills but also to composition their competence to apply them in life situations[7].

Developing and developing basic and fan-related competencies based on harmonization of the level of mathematical education in elementary school students with the TIMSS (Trends in International Mathematics and Science Study) international evaluation program will be a major factor today. To assist individuals desiring to benefit the worldwide work of Jehovah's Witnesses through some form of charitable giving, a brochure entitled Charitable Planning to Benefit Kingdom Service Worldwide has been prepared[8].

Increasing the didactic capabilities of teaching mathematics based on gradually directing students to the work of algorithmic information exchange will ensure students' activity in the teaching process. A number of such important aspects have been taken into account in the creation of a mathematical textbook. To assist individuals desiring to benefit the worldwide work of Jehovah's Witnesses through some form of charitable giving, a brochure entitled Charitable Planning to Benefit Kingdom Service Worldwide has been prepared[9].

No matter how significant the learning material may be, it cannot keep interest constantly due to the lack of focus of primary school students. It is also important that the memory of elementary school students has the ability to remember more illustrations, and the visual expression of the learning materials is important. The perception of elementary school students is directly related to practical activities. Therefore, the textbook uses a sequence of vital, visual, and abstract materials to cover



topics. This is especially important in covering complex topics. This process involves the transition from clearly vital materials to fine material, the transition from visual materials to abstract materials. Work with such materials is carried out in three stages[ 10].

In step 1, vital samples are presented in the study materials.

Phase 2 teaches you how to use visual images of life objects. That is, students learn to express life objects in pictures or models. Building or drawing a model makes it easier for children to understand complex and abstract concepts. Visually expressing tasks will help them to do it more easily.

Phase 3 teaches mathematical mathematics and characters. For example, numbers are introduced to mathematical characters (+, -, x, ÷) for adding, separating, multiplying, or dividing numbers. In addition to textbooks, teachers are also intended to give assignments that develop practical skills along with theoretical materials [11]. "Additional assignments" are presented at the end of the 2nd grade mathematics lesson . They can be used to work with students who are achieving good results in mastering the subject or to increase students' interest in science. In this way, the students will be given these assignments after strengthening their basic understanding. Presenting these assignments as a problem for all students during the school year or at the end of the lesson will allow students to feel confident and friendly cooperation.

Developing the functional literacy of schoolchildren as a key point for improving the quality of school education requires their ability to work actively in society, determine their own destiny, self-improvement, and self-fulfillment[12].

Based on the results and analysis of international studies presented in the above sections, the following requirements can be set for students' knowledge and skills to develop mathematical literacy:

- search and use of teaching and references to mathematical definitions, formulas and other facts;
- use knowledge, skills and graphical skills related to algebra in various life situations;
- data collection, analysis, processing, synthesis;
- the use of mathematical formulas, the independent formation of formulas that represent the relationship between quantities based on the integration of certain private situations;
- use enhanced algebraic replacements and functional graphical images and imaginations to describe and analyze relevant objects around or in other subjects;
- to be able to base their point of view, participate in its discussion and draw logically correct conclusions;





- work with mathematical text (analyze and extract the necessary information), write your opinion accurately and correctly using mathematical terms, symbols and symbols, and express orally and in writing;
- solving practical life issues, using the necessary references and computing tools to solve them if necessary, analyzing real digital data in tables, charts, graphical forms, and statistical information; –
- the use of modern information technology as a means of solving mathematical problems of practical character.

To solve the current situation, it is recommended that math teachers pay attention to:

- correct and accurate formation of mathematical speech;
- distinguish mathematical mathematics and methods from solving textual issues and apply them to a new state;
- to translate the terms of the issue from a textual view to a mathematical language and to reveal the content and nature of the replacement of shapes[13];
- to develop creative work skills for students and to create problematic situations so that they can make active mental movements.

Here are some examples of the assignments presented to 4th graders .

1. Three thousand basketball tickets are numbered from 1 to 3000. Viewers with tickets whose numbers end with 112 will win the prize. Write down the numbers of all prize tickets.
2. In the garden of Roda I, there is a flag, and sometimes the hanging flag trickles northward and sometimes in the other direction. What makes the flag trick? 3. Which of the celestial bodies of the earth, Mars, the moon, and the sun is the hottest?
4. If the plant adds a large amount of hot water to the river, write down what can happen to fish and plants in the river[14].

Based on the results of the research, the content, evaluation criteria, and mechanisms of international evaluation programs for teaching mathematics are intended to be introduced based on local conditions.

### **List of Available Publications**

1. Resolution of the President of the Republic of Uzbekistan No. PF-4708 of May 7, 2020 "On measures to improve the quality of education in mathematics and develop scientific research"
2. "Evaluation of mathematical literacy of students in international research" "Sharq" NMAK Tashkent 2019.





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