WEB OF SCIENTIST: INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL
ISSN: 2776-0979, Volume 4, Issue 3, Mar., 2023

THE ROLE OF MATHEMATICS IN THE DEVELOPMENT OF STUDENTS' THINKING ABILITY

Sattorov Muzaffarjon Tolipovich
Teacher of the Department of Primary Education Methodology of ADU

Abstract
This article has discussed in detail the development of logical thinking in secondary school students, the development of independent thinking, and the principlens of logic science.

Keywords: logic, legal, necessary, coherent speech, order, to think, ability.

INTRODUCTION

The importance of mathematics for the development of logical thinking has been known since ancient times. When we talk about the mathematical appearance of thinking, which experts of any specialty should know about, then the high qualities of logical thinking are: precision, brevity, order, avoiding even small falsifications, providing a complete proof and etc. are understood.

Mathematics is definitely of the first rank in the formation of logical thinking

It is important because it cannot reconcile itself with false claims and is one of the rare sciences that prefers to refute false ideas rather than pretend to be true. In the teaching of mathematics, it is envisaged to acquire theoretical knowledge in depth, because without it, mathematical facts will not be able to solve practical problems.

there is no question of its conscious application to learning.

RESEARCH RESULTS

Mathematics taught at school should also teach the ability to apply the acquired knowledge to solving practical problems. The most important thing in the development of students' thinking is the systematic training conducted at school. In this process, the scope of thinking of students expands through the assimilation of the knowledge taught at school in connection with the development of observation, memory and imagination, the logic of thinking and criticality develops. Each student has to solve various tasks during training and in life practice. Students learn to ask the right questions and formulate tasks, learn to think correctly.

Along with the development of abstract and logical thinking, students' critical thinking is developed. Of course, it is impossible to develop the thinking of all students at the same level. Because the personal characteristics of each student are

further determined by the development of other mental processes, that is, memory, imagination, speech,
attention, will, etc. These features depend on the interests, educational and practical activities, as well as independence of students.

The results of psychological research show that teaching mathematics, especially solving mathematical problems, plays an important role in the formation and development of students' thinking skills. it is necessary to clarify the various aspects of the studied concepts.

Thus, the solving of mathematical problems and exercises by students in mathematics classes not only helps them master the basic concepts, ideas and methods of mathematics, but also improves their thinking ability.
is also necessary for its development.

The effectiveness of mathematical tasks and exercises mainly depends on the level of creative activity of students. In fact, one of the main goals of tasks and exercises is to activate the mental activity of students in the lesson. Mathematical tasks, first of all, should serve to stimulate students' thinking, work, and develop.

When we talk about activating students' thinking, we mean that in mathematics classes, students do not only know how to construct, transform and perform formulas, but also use the knowledge they acquire in mathematics to think correctly, analyze facts correctly, make comparisons, find commonalities and differences. should also teach to find.

Therefore, it is necessary to determine how the teaching of mathematics contributes to solving the task of forming scientific and theoretical thinking, how the educational process should be organized, and what its content should be.

Uzbek Methodist-scientists N.R.Gaibullaev and I.I.Dirchenko in their research examined the abilities of students and developed 5 types of issues that develop them:

- Issues that develop logical thinking;
- Issues that develop spatial perceptions and spatial hypotheses;
- Issues that develop computational algorithmic abilities;
- Issues that develop geometric intuition;
- Issues aimed at developing the ability to generalize.

When it comes to forming students' mathematical thinking
mainly their mastery of educational material and scientific thinking
is about formation. In other words, think about the students in this process
some common features are considered:

• analysis, synthesis, comparison, generalizations, induction, deduction and analogy about;

• about various connections and relationships:
• about analogies, that is, the origin of classification;
• it is necessary to form ideas about the systematization of concepts.

Therefore, students' activity is not focused only on re-reading the text in the textbook:
• methods of creating mathematical truth;
• to compare different ways of solving problems;
• to search for possible applications of the theory, etc
should be directed.

Psychologists approach this process as follows: "Adolescents' interest in studying appears directly in their desire to make a "discovery". Ready-made knowledge and ready-made conclusions do not satisfy a young teenager, he only memorizes them superficially. That's why sometimes active, intelligent young people study averagely and cause a lot of trouble to the teacher."

CONCLUSION

The possibilities of mathematics are considered high in the development of students' logical thinking skills, and it forms basic skills for a person's future activities, such as planning activities, analyzing the results achieved, increasing the accuracy of necessary calculations, building and researching mathematical models, optimization, and so on. it also plays an important role in defining professional qualities.

REFERENCES

1. Jumayev.M.E. Boshlang'ich sinflarda matematika o'qitish metodikasidan praktikum (OO'Yu uchun) Toshkent "O'qituvchi" nashriyoti, 2004 yil
2.Qodirova, B. "Analysis of verb terms in Uzbek and Kazakh language schools' manuals." Journal of Advanced Research in Dynamical and Control Systems 12.6 (2020): 1125-1129.
3.Kadirova, Zulayxo. "INTERNATIONAL LABOR MIGRATION POROCESSES IN UZBEKISTAN." Вісник Національної академії керівних кадрів культури і мистецтв 3 (2018).
4.Kadyrova, B. "The Concept of Historical Consciousness and its Interaction with Social Intelligence." European Journal of Research and Reflection in Educational Sciences 8: 189-194.
5.Турғуновна, Қодирова Бузулайҳо, and Айнура Мархабаевна Бекжанова. "Бадиий асарлар воситасида бошланғич синф ўқувчиларида тарихий онгни шакллантириш методикаси." Образование 8.9 (2022): 10.

6.Turgunovna, Kodirova Buzuloikho. "Gaming technologies to improve the efficiency of the educational process." Web of Scientist: International Scientific Research Journal 3.02 (2022): 837-839.

7.Турғуновна, Қодирова Бузулайҳо, and Айнура Мархабаевна Бекжанова. "Бадиий асарлар воситасида бошланғич синф ўқувчиларида тарихий онгни шакллантириш методикаси." Образование 8.9 (2022): 10.

8.Кодирова, Бузулайхо Тургуновна. "ФОРМИРОВАНИЕ ВОСПРИЯТИЯ ПРОИЗВЕДЕНИЙ ИСКУССТВА В ПРОФЕССИОНАЛЬНОЙ ПОДГОТОВКЕ БУДУЩИХ УЧИТЕЛЕЙ НАЧАЛЬНЫХ КЛАССОВ." EUROPEAN RESEARCH: INNOVATION IN SCIENCE, EDUCATION AND TECHNOLOGY. 2020.

9.Kadirova, B. "PSYCHOLOGICAL-PEDAGOGICAL AND METHODOLOGICAL FEATURES OF THE FORMATION OF HISTORICAL CONSCIOUSNESS IN PRIMARY SCHOOL STUDENTS." harmony 3: 12.

10.Кодирова, Бузулайхо Тургуновна. "Специфика работы над художественно-историческим произведением в начальной школе." Вопросы науки и образования 7 (19) (2018): 213-215.

11.Кодирова, Бузулайхо Тургуновна. "Методологические основы формирования текстовой деятельности у учащихся в процессе постижения художественного произведения." Научные исследования 6 (26) (2018): 78-80.