European Journal of Pedagogical Initiatives and Educational Practices
ISSN (E): 2938-3625
Volume 1, Issue 3, June, 2023

Ways to Increase Cognitive Interest in Mathematics in Younger Schoolchildren

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Teaching, devoid of all interest and taken only by the force of coercion, kills in the student the desire to master knowledge. To lure a child to learning is a much more worthy task than to force him.
K.D. Ushinsky

Abstract
The article discusses ways to increase cognitive interest in mathematics among younger schoolchildren, which has not lost its relevance to this day. The success of learning depends on the quality of assimilation of knowledge by students, on how interested the child is in this subject.

Keywords: primary school students, cognitive interest, mathematics, development, methods.

Introduction

Despite the fact that the problem of the development of cognitive interest in younger schoolchildren in mathematics lessons was dealt with by many researchers and teachers working in the field of teaching mathematics, it still remains one of the urgent problems in its teaching.

In a modern school, the teacher is faced with the indifference of students to learning, with a lack of understanding of this material and a lack of motivation to learn. Therefore, one of the central tasks of the school is the formation of students' cognitive interest, positive motivation that would encourage them to act and work systematically.

According to I.F. Herbart, interest is synonymous with educational motivation. L.S. Vygotsky believed that the educational process should be built on "precisely taken into account children's interests" [1].

To achieve the result, it is necessary to make learning a desirable process, and this is possible with the development of cognitive interest in the subject. The concept of "interest" is interpreted in the literature very broadly. "Cognitive interest is the selective orientation of the individual to the objects and phenomena of the personality, to the objects and phenomena surrounding reality" [2]. Under the influence of cognitive interest, educational work, even for weak students, proceeds more productively. In the classroom, it is necessary to systematize, develop and strengthen the cognitive interest of students, as a powerful means of learning and improving its quality. Cognitive interest is directed to the result of cognition, which is associated with effort, striving for a goal, with its implementation and volitional qualities.

Leo Tolstoy believed that the main measure of good or bad learning is the arousal of children's interest in learning. It is interesting for children to learn, their eyes shine - a good school, they are bored, painful, dull eyes without light - a bad school.

Mathematics is one of the most difficult school disciplines. Due to the increasing complexity and richness of the school curriculum, the ever-increasing level of requirements, students are sometimes bored to study this subject and this makes them think about how to maintain students' interest in the material being studied, their activity throughout the lesson. Therefore, it is advisable to carry out systematic work aimed at developing mathematical thinking in primary school students. Activation of thinking in a student occurs only when he has a desire to reflect, to gain new knowledge. To do this, you need to use different methods and ways of building a workflow.

Currently, innovative technologies that contribute to the activation of attention, perception, thinking and imagination play an important role in increasing cognitive interest. A teacher can achieve a good result by working with students in modern conditions using the capabilities of new technologies.

Mathematics contains a large number of abstract concepts: shape, size, volume and others that require deeper assimilation. For example, you can use multimedia or TV, with which students can see with their own eyes. The use of information technology is very necessary when passing the geometric course of mathematics. This allows you to simulate those phenomena and actions that cannot be demonstrated in reality.

Thus, the use of innovative technologies in mathematics lessons develops the student's creative abilities, cognitive activity and increases the efficiency of the learning process of younger students.

The favorite and most interesting form for younger students is the game. K.D. Ushinsky also advised to include elements of amusement, game elements in the educational activities of students in order to make the process more productive. In practice, I came to the conclusion that in the process of playing, children in a math lesson are happy to perform tasks, exercises and tasks.

The most famous are didactic games. They develop imagination, activity and make the learning process entertaining. Being carried away, children do not notice that they are learning, learning new things and remembering, for example, in mathematics lessons you can use riddles, puzzles, crosswords, puzzles. Children love games encrypted with riddles, puzzles with drawings.

One of the technologies of developmental learning is problem-based learning. Problem-based learning, not the presentation of ready-made information. The teacher builds the activity in such a way that students can gain new knowledge themselves. This creates an environment of finding a solution to the problem, thinking and passion. The main ways to form a problem situation [3]:

- the teacher gives the students a certain contradiction, inviting them to resolve it on their own;
- the teacher gives several opinions on the same problem;
- forces students to generalize and compare, draw conclusions, compare facts;
- asks specific questions, when answering which it is necessary to think logically, concretize, generalize, justify;

– offers problematic tasks in which there are redundant or missing initial data, contradictory data, knowingly made errors, etc.;

– invites students to come up with a task themselves

Inclusion in creative work awakens the desire and interest of schoolchildren, who are associated with the work of imagination, with the active operation of knowledge, skills and abilities. Teacher P.P. Blonsky wrote that "the transformation of school classes from obedience lessons into a series of discoveries made by students is the only thing that can really make our truth alive, experienced and realized for the child" [4].

Discussing different options for finding ways to solve problems, children actively offer different approaches, compose, invent, invent and defend their answers. At the same time, they have a desire to know why some solutions are right and others are wrong.

Independent work is one of the indicators of the child's interest. For the independent work of the student, in my practice, I used handouts (cards) with tasks with which they try to find the answer, quickly and correctly cope with them. In my lessons, I try to teach you to work independently, express and test your own suggestions and guesses.

Thus, there are many ways to increase cognitive interest in mathematics. The teacher should systematically apply them in the classroom, taking into account the psychological and age characteristics of students. If children love lessons and look forward to them, each lesson for them is the discovery of something new, not yet known.

References:

1. Holeva O.V. Development of cognitive interest in mathematics lessons -Young scientist (IV) -Perm-2013.- p.154
2. Ganyushkina O.A. Formation of cognitive interest in younger schoolchildren in mathematics lessons Saratov-2012.- p.13
3. Zembatova G.V., Kirichenko K.N. Ways to increase the motivation of schoolchildren to study mathematics - World of Science and Culture, Education No. 4 (95) -2022.-p.164-165
4. Chebakova G.V. Development of creative thinking of students in mathematics lessons through the system of search and practical problems - Livenka No. 1 - p.34-36
5. Kondratieva E.S. Development of cognitive interest in younger schoolchildren through the use of information technology in mathematics lessons - MAOU School No. 108 - Chelyabinsk - p.5
6. Adzhieva M.A. Increasing motivation among fifth-graders in mathematics lessons, secondary school No. 100, Sochi, p.3
7. Kalinina I.V. Motivation of educational activity in the lessons of mathematics and mathematics of secondary school No. 5, Voronezh, pp. 37-38.