

METHODOLOGY FOR TEACHING ELEMENTARY SCHOOL STUDENTS TO SOLVE LOGICAL PROBLEMS

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Annotatsiya: Ushbu maqolada boshlang'ich sinf o'quvchilarini mantiqiy masalalarni yechishga o'rgatishning samarali metodikasi ko'rib chiqilgan. Mantiqiy fikrlashni rivojlantirish uchun qo'llaniladigan usullar, masalalar turlari va ularni dars jarayoniga integratsiyalash yo'llari batafsil tahlil qilingan. Shuningdek, mantiqiy masalalar o'quvchilarda tanqidiy fikrlash va ijodiy yondashuvni shakllantirishdagi ahamiyati yoritilgan.

Kalit so'zlar: boshlang'ich ta'lim, mantiqiy masalalar, metodika, mantiqiy fikrlash, o'qitish usullari, boshlang'ich sinf, didaktika.

Абстрактный: В статье рассматривается эффективная методика обучения учащихся начальной школы решению логических задач. Подробно анализируются методы развития логического мышления, типы задач и способы их интеграции в процесс урока. В нем также подчеркивается важность логических задач для развития критического мышления и творческих подходов у учащихся.

Ключевые слова: начальное образование, логические задачи, методика, логическое мышление, методы обучения, начальная школа, дидактика.

Abstract: This article examines an effective methodology for teaching primary school students to solve logical problems. The methods used to develop logical thinking, types of problems, and ways to integrate them into the lesson process are analyzed in detail. The importance of logical problems in the formation of critical thinking and creative approaches in students is also highlighted.

Keywords: primary education, logical problems, methodology, logical thinking, teaching methods, primary school, didactics.

Elementary education is considered one of the most important stages in school, because it is during this period that the child begins to form his thinking skills. And the development of logical thinking acts as a foundation in achieving success not only from mathematics, but also from all disciplines. Solving logical problems is not only a computational ability, but also a process of analyzing a problem, understanding dependencies, developing the skill of thinking in new situations. Therefore, it is an important pedagogical task to teach students in elementary grades to solve logical problems.

The concept of logical issues and their significance

A logical issue is understood as tasks that require complex thinking, which, in addition to simple calculation, make it necessary to perform a series of steps in the process of thinking. They serve to concentrate students' attention, to systematically formulate thought, as well as to increase the ability to reason and compare.

When solving logical problems, students develop the following skills:

Analytical thinking-dividing the issue into small pieces and analyzing each part;

Synthetic thinking-finding a solution by combining individual data;

Creative approach-finding new methods, ways;

Observation and attention-a close look at each detail;

Causation and justification — to explain and defend one's own opinion.

Types of logical issues:

In elementary grades, it is recommended to use more of the following types of logical problems:

1. Simple counting issues: for example, "if Murad has 3 apples, and he gets 2 more apples, how many apples will he have in total?" These issues, while enhancing students' arithmetic abilities, prepare them for logical thinking.
2. Pictorial issues: issues given on the basis of a picture or diagram develop the visual thinking of the reader. For example, in the picture there are several birds, calculating how much they flew.
3. Sequence issues: continuing a sequence of numbers or forms increases their ability to perceive relationships in students. These types of issues deepen logical thinking.
4. Problem issues: in this type of issue, the reader can come up with different solutions that serve to develop creative thinking.

Methodology for teaching logical issues

It is advisable to use the following methodological approaches to effectively teach logical issues:

Teaching through explanations and examples: the teacher explains the issue step by step and, together with the students, finds a solution. In the process, it is important to answer and encourage students' questions.

Application of visual materials: explanation of issues through painting, diagram, image, which is especially effective for younger readers.

Exercises in the form of a game: solving logical issues in the form of a game increases interest in students and encourages them to work actively.

Working in a group: Students divide into small groups and solve issues together. This method develops communication and collective thinking skills.

Encouraging independent thinking: it is necessary to encourage students to formulate new issues themselves, to explain to friends.

Enrich classes with logical issues

In the lessons, it is very important to devote special time to logical issues and relate them to everyday life situations. For example, through examples such as Hours, money, distribution of toys, shopping in stores, it is possible to show students that mathematics is closely related to life. This will increase the interest of students and help them better master the topic.

Problems and ways to eliminate them

Some difficulties may arise when teaching logical issues in elementary grades:

Lack of attention: younger students are unable to maintain their attention for long periods of time. This can be overcome with games and short exercises.

Fear of difficulty: some readers are afraid of not being able to cope with complex issues. In this situation, the teacher should help step by step and make positive incentives.

Student differential approach: each child thinks at a specific speed, so an individual approach is necessary.

Conclusion: teaching to solve logical issues in elementary grades not only creates a solid foundation of mathematics, but also develops the general thinking of students. By methodically taking the right approach, teachers can arouse students' interest through the use of various techniques, improve their thinking skills, and prepare them to master complex subjects in the future. Therefore, the process of teaching to solve logical issues in primary education should always be a priority.

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