

ISSUES OF DEVELOPING MATHEMATICAL COMPETENCE IN SHAPING PRIMARY SCHOOL STUDENTS' WORLDVIEW

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Abstract

This article is devoted to the issue of developing mathematical competence among primary school students. Mathematical competence plays an essential role in helping students acquire mathematical knowledge, develop logical thinking, and enhance problem-solving skills. The use of modern pedagogical methods — such as problem-solving strategies and logical tasks — provides opportunities for students to expand their worldview through mathematics.

Keywords: Mathematical competence, education, methodology, competency-based learning, innovative teaching technologies, mathematical imagination, integration in the learning process.

Introduction

Mathematics is not just about working with numbers and equations — it is also a powerful tool for understanding the world and forming new perspectives about it. Mathematical competence plays a key role in shaping the worldview of primary school students. This competence not only helps learners master mathematical knowledge, skills, and concepts, but also enables them to apply those in real-life situations. As a result, their analytical thinking, problem-solving ability, and logical reasoning skills are strengthened.

Mathematical competence refers to the learner's ability to understand and apply mathematical knowledge in practical situations. Forming mathematical competence in primary school students is particularly important, as this is the stage

where they acquire foundational mathematical concepts and skills. These skills assist students not only in solving mathematical problems but also in making logical decisions in everyday life.

In the process of shaping a new worldview, mathematical competence allows students to analyze problems comprehensively, think from various perspectives, and adapt to a rapidly changing world. For instance, studying geometric shapes, numbers, and their relationships helps students gain mathematical knowledge while deepening their understanding of the surrounding world.

Developing Analytical Thinking: Mathematical problems often require learners to solve tasks in multiple steps, which develops systematic thinking. Understanding relationships between equations and their components assists students in simplifying complex situations.

Encouraging Creative Approaches: Mathematics frequently calls for novel and original ways of thinking. Primary school students learn to solve problems using different methods, which stimulates their creative thinking.

Application in Real Life: Teaching students to apply mathematics in practice allows them to see themselves as rational and logical individuals in everyday scenarios. For example, they learn to work with mathematical concepts even during reading and writing activities.

Innovative Methods for Developing Mathematical Competence

Modern pedagogical methods play a crucial role in the development of mathematical competence in primary school students. Through interactive teaching techniques — such as group work, games, problem-solving methods, and practical exercises — students become more active and absorb knowledge more effectively.

Interactive Methods: Using interactive methods such as math games and collaborative problem-solving helps promote a culture of cooperative learning and gives students opportunities to exchange ideas.

Problem-Solving Strategies: These methods help students tackle real-life problems. For example, simple everyday problems related to shopping, counting money, and similar contexts teach students how to solve mathematical tasks in practical situations.

Logical Problems: To improve students' mathematical logic and problem-solving skills, they should be presented with increasingly complex problems that encourage thinking from different angles.

Mathematical competence plays a pivotal role in shaping the worldview of primary school students. It empowers them to apply their knowledge practically and fosters logical reasoning, creative thinking, and an enthusiasm for problem-solving. With modern pedagogical methods, students learn not only mathematics itself but also how to implement it in real-world situations — helping them develop a more comprehensive and adaptable perspective.

The Role of Didactic Games in Teaching Mathematics

In the methodology of teaching mathematics, **didactic games** hold special importance. They enhance students' interest in the lesson and make learning more effective and engaging. Through didactic games, students consolidate mathematical concepts and improve their problem-solving skills. Below are several didactic games and techniques commonly used in mathematics instruction:

1. Mathematical Quest Game Objective: Students answer a series of math questions to find the next clue. **How to Play:** The teacher hides math-related questions around the classroom. Students solve each one to locate the next question. These questions may involve numbers, geometry, or calculations.

2. Table Completion Game Objective: Students practice accurate calculations and learn to complete tables. **How to Play:** Students are given partially completed tables (e.g., multiplication tables) and must fill in the blanks. This improves their speed and accuracy with numbers and operations.

3. Number Identification Game Objective: Students reinforce their skills in working with numbers and calculations. **How to Play:** A series of numbers is

presented, and students are asked to identify numbers that meet specific criteria. For example, “Find the number that is divisible by 5 and is a multiple of 3.”

Conclusion

In conclusion, mathematical competence is vital in shaping the worldview of primary school students. It increases their interest in lessons and makes learning more effective and enjoyable. Through the use of modern pedagogical approaches and engaging activities, students not only learn mathematics but also develop critical life skills that allow them to view and interact with the world more thoughtfully and confidently.

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