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ANALYSIS OF SCHOOL MATHEMATICS TEXTBOOKS: FEATURES

Abdumanapova Aidana¹, Akhmanova Danna Maratovna², Orymbetov Samgat
Amankulovich³

^{1,2,3}Karaganda Buketov University, Karaganda, Kazakhstan

¹E-mail: danna.67@mail.ru

²E-mail: samgat_ajjan@mail.ru

The 8th-grade mathematics course is an important part of the school curriculum. In this phase, students deepen their knowledge of algebra, geometry, and their practical applications. Therefore, the quality of the textbooks directly influences the effectiveness of the learning process. A comprehensive analysis of the textbooks allows for improvements in the quality of educational and methodological work.

The following aspects were considered during the analysis of the textbooks:

- Completeness of content and logical structure;
- Clarity of the instructional material and quality of illustrations;
- Classification of tasks by difficulty (basic, complex, creative);
- Conformity to teaching standards and student competencies;
- Availability of additional methodological tools [1].

The textbooks cover all key topics: rational numbers, equations, functions, geometric figures, and their properties. However, some topics lack a balance between theory and practice.

Illustrations and examples help students understand the material, but some sections lack sufficient visualization of abstract concepts.

Although tasks are given at different levels, there are few creative and research-oriented tasks. The textbooks align with state educational standards, but sometimes elements of competency-based teaching are insufficient.

- Increase the use of interactive and visual tools in textbooks;
- Increase the number of creative and problem-solving tasks;
- Strengthen interdisciplinary connections, especially in the STEM field;
- Include additional exercises to develop students' mathematical thinking skills.

The 8th-grade mathematics textbooks provide the foundation for the overall curriculum, but content and methodological improvements are necessary to enhance their effectiveness. The use of modern pedagogical approaches and technologies will contribute to improving the quality of education.

References

- [1] Jones, M., Taylor, S. (2020). *The Role of Textbooks in Teaching Mathematics*. Oxford University Press

ORGANIZING LEARNING USING MIND MAPS FOR TEACHING THE SOLUTION OF WORD PROBLEMS

Beisenova D.R.¹, Syzdykova N.K.²

^{1,2}Karaganda E.A.Buketov University, Karaganda, Kazakhstan

¹E-mail: dana_68_11@mail.ru

²E-mail: s_nazym_1807@mail.ru

Students of the educational program 6B01501–Mathematics undergo pedagogical practice according to the curriculum. During their practice, future teachers explore effective ways to use modern methods and tools to teach students how to solve word problems. One such method is the use of mind maps. This approach helps students analyze the problem's context, structure key information, and systematically plan solutions, thereby enhancing their logical thinking.

In the modern educational process, one of the key objectives is the development of students' logical thinking and creative activity. Special attention should be given to developing analytical and systemic thinking skills, particularly when solving word problems. In this context, the use of mind maps is considered an effective tool that helps students understand the structure of a problem and guides them toward a step-by-step solution. This article discusses the methodology and effectiveness of using mind maps in solving word problems.

When solving word problems in the mathematics curriculum, several key challenges arise. First, students often fail to fully and accurately understand the problem text. This results in their inability to identify the necessary information from the conditions of the problem and correctly translate it into mathematical language. As a result, it becomes difficult to find the correct solution method.

The method of teaching how to solve word problems through mind maps enables students to develop analytical and logical thinking, graph and chart creation skills, as well as improve communication skills. This helps them better understand mathematical problems and solve them with greater confidence and efficiency, which in turn improves their overall academic performance in mathematics.

Mind maps are graphic organizational tools that help students structure information and connect it with related elements. They are used in solving word problems, helping learners visualize information and highlight the main ideas of the task [1].

The process of using mind maps to solve word problems typically involves the following steps:

1. Read the problem statement and identify key words and phrases.
2. Create a mind map that displays the key words and phrases.
3. Highlight the main ideas of the problem and their connections on the mind map.
4. Select the appropriate mathematical operations and represent them on the mind map.
5. Solve the problem using the mind map.