THE STRUCTURE AND CONTENT OF THE ELEMENTARY MATHEMATICS COURSE FOR ENTERING THE SPECIALTY

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Abstract:
The development of the movement to reform mathematics teaching in secondary school depends on the following actions: "the effort to bring the school mathematics course closer to modern mathematics and its practical applications; Struggle to create a unified mathematics course that combines arithmetic with fundamentals of algebra and geometry; The practical orientation of the school mathematics course, the connection of teaching with life, and the attention paid to the calculation culture of students, especially the theoretical side of the school mathematics course with serious implementation at the lower level of education, increased attention to the theoretical side of the school mathematics course etc.

Keywords: modern school, admission to specialization, mathematics course, structure, content.

It is known that the concepts of "American dream", "British dream", "Russian dream", "Japanese dream", "Chinese dream" exist in the political dictionaries of the world nations, which clearly confirms this. They were not formed for no reason and by chance. Each of these concepts expresses the common dreams and hopes of that people, the period they are living in and the goals for the future.

There is no doubt that deep meaning is embodied in such concepts, which have been formed over the centuries and represent universal dreams of the inhabitants of a certain nation or region.

Today, the strategy of New Uzbekistan is gaining such a life-giving feature, it is becoming a moral basis and criterion that unites our people in the path of bright goals. The confidence in our own strength makes us stronger and stronger by uniting us towards the great goal of establishing the New Uzbekistan and creating the foundation of the New Renaissance.

  Therefore, one of the main directions of modern school reform is developmental education. The educational development program in Uzbekistan emphasizes the need to move from knowledge-oriented education to developmental education, which is related to educational reform and human orientation. In Uzbekistan, one of the main goals of the educational system defined within the framework of the State Education

Standard is "the comprehensive and timely development of children and young people, the development of their creative abilities, independent learning skills, and the formation of the ability to determine one's own position."

The elementary mathematics course is a component of the school mathematics course. Therefore, it becomes clear that the successful mastery of elementary mathematics is the basis for the correct implementation of the entire mathematics education at school. Academician A. N. Kolmogorov did not say without reason that the programs of grades 4-8 "are based on the assumption that the four arithmetic operations with natural numbers will be mastered in three grades (in fact, of any size)."

The acceleration of the movement to reform the teaching of mathematics in secondary school depends on the following actions:

- "to strive to bring the school mathematics course closer to modern mathematics and its practical applications;

- Struggle to create a single mathematics course that combines arithmetic with the basics of algebra and geometry;

- The practical orientation of the school mathematics course, the connection of teaching with life, and the attention paid to the calculation culture of the students, especially the theoretical side of the school mathematics course with serious implementation at the lower level of education , increased attention to the theoretical side of the school mathematics course;

- Due to updating the content of education, perfecting the system and methods of presentation, mainly due to the full use of the students' cognitive abilities, the educational material should be pushed down a little by the years of education.

The spirit and direction of the new program, the meaning of its reconstruction can be fully understood only if these leading rules are learned and correctly evaluated in terms of influencing factors for the further development of the school.

It should be noted that the structure and content of the current elementary mathematics program was not created in a vacuum, but is created while maintaining certain consistency with the traditional system.

Now let's take a closer look at the structure and content of the elementary mathematics course taught in grades 1-4 according to the current program.

It is known that the educational subject is called "Mathematics" and not "arithmetic" as before. Such a change in the name of the subject is not in vain: this change reflects the change in the content and structure of this educational subject.

The main core of the mathematics program consists of the arithmetic of natural numbers and quantities, around this core, the elements of algebra and geometry are

combined, these elements are included in the arithmetic knowledge system, and the concepts of numbers, arithmetic operations and mathematical relationships are at a higher level.

Thus, the elementary mathematics course is a whole course that includes three subjects according to its structure, and it should be distinguished by its parts consisting of arithmetical, algebraic and geometrical material.

The goal of creating the most favorable conditions for the formation of the necessary generalizations is not only the content, but also the location system of the educational material. Educational material can be located in a program either linearly or concentrically.

Linear explanation means the placement of material in the program in such a way that it is based on the logical sequence of sections, which is accepted in scientific courses. Linear construction in relation to arithmetic can be: numbering, addition, subtraction, multiplication and division of multi-digit numbers. In the elementary mathematics course, the concentric arrangement of the arithmetical material is kept. But the current program has reduced the number of units: tens, hundreds, thousands, multi-digit numbers. It should also be said that the material has been regrouped in such a way that the interconnected concepts, actions, and issues are brought closer together. This allows teaching to always compare, contrast and compare issues of interrelated concepts and actions, to identify the similarities and differences of the considered facts, and to open the connections between them.

Due to paying great attention to theory and more rational structure of the course, it will be possible to simplify the study of its important sections. This issue is related to working on addition and subtraction methods within 100 in 1st grade, learning multiplication and division in tables in 2nd grade, and so on.

Now let's look at the content of each component of the mathematics course (arithmetic, algebra and geometry).

In the program of the primary class, this combination of elementary information from arithmetic is given; natural numbers, zero, four arithmetic operations between these numbers; fractions, nominal numbers and operations on them. Studying this material should lead students to master a system of mathematical concepts, as well as acquire thorough and well-understood computational skills and competencies. At the same time, these skills are developed on the basis of working with subject sets on the one hand, and on the other hand, based on the conscious use of calculation methods. Since the program introduces some important properties of arithmetic operations and their results, it becomes possible to consciously master calculation methods. This is the property of substitution of addition and multiplication, the law of distribution of

multiplication and division, and the sum of results arising from the main properties; adding a number to a sum and multiplying a sum by a number, subtracting a number from a sum, adding a sum to a sum, subtracting a sum from a sum; multiplying the number by the sum and the sum by the number, dividing the sum by the number; consists of multiplying and dividing a number by x.

Each of its main properties is revealed based on performing practical operations on sets or numbers, as a result of which students must come to generalizations. To generalize properties, the course provides a special system of exercises, but the main purpose of using properties is to reveal calculation methods based on them.

By studying the properties of arithmetic operations and the corresponding calculation methods, the connections between the results of arithmetic operations and computers are revealed (for example, if one of the addends is subtracted from the sum, the second addend is formed). changes in the results of arithmetic operations are observed with. In the program, along with oral methods of calculations, great attention is paid to written methods. Work on written calculation methods begins with studying the topic "THOUSANDS" in the 2nd grade. Children of the 2nd grade get to know the methods of written addition and subtraction within 1000. In the 3rd grade, more difficult cases of addition and subtraction within 1000 (cases of the form 248+176; 900-345; 803-257), as well as multi-digit numbers (within the class of millions) are considered.

In order to prepare for learning the systematic course of mathematics, clear ideas about fractions are given. In the 2nd grade, the concept of a share (part) is considered as equal parts of a whole (a circle, a rectangle, etc.) and the writing of shares is given. In the 3rd grade, fractions are considered as a set of fractions, substitution and comparison of fractions is given on the basis of demonstrability.

Arithmetic material of the program includes introducing the students to the main quantities - length, mass, time, surface, value, speed, as well as the measurement units of these quantities, methods of measurement using various measuring devices. In the current program, the approach to the study of length measurements has been radically changed. Centimeters are introduced when teaching the numbering of the first numbers of the natural series. 2. Decimeters are used when counting decimal numbers, and meters are used when teaching hundreds. First of all, this allows children to form the concept of number not only as a result of counting, but also as a result of measurement. This approach eliminates the need to separate named numbers into a separate topic. Operations on named numbers are performed at the same time as operations on unnamed numbers, because both cases are based on the decimal system itself.

It should be noted that the material of arithmetic is included in the actual program in large methodical units. For example, it has two concentrations - million and billion concentrations, but also one concentration - multi-digit numbers; There are two concentrators of the second decimal and the concentrator of hundreds, but there is one concentrator of the first hundredth, which includes the second tens: as mentioned above, there is a separate concentrator called the concentrator of complex named numbers, because the operations on these numbers are nameless. it is studied together with operations on numbers; Finally, there are many tables of multiplication and division, but there is only one table, according to which the results of dividing the table can be easily found. As a result of this concentration of the material, children have the opportunity to give a large amount of generalized and detailed knowledge in a short time.

Introduction of elements of algebra meets the goals of deep, understood and generalized mastery; concepts of equal inequality, equation, variable are revealed on a concrete basis.

Starting from the 1st grade, numerical equalities and inequalities (4=4; 6=1+5; 2<3; 6+1>5; 8-3 <8-2, etc.) are considered. Their study is related to the study of arithmetic material and helps to reveal it more deeply. Here, x+3 = 6 in a simpler form; 8-x =3 and x. k. equations begin. Later, starting from the 2nd class, it is more complicated, for example, (x +6) − 3= 20 and so on. the equations in the form are considered. Solving the equations is performed first by the method of selection, and then based on the knowledge of the connections between the results and components of the operations. Starting from the 2nd grade, in addition to solving equations, students are taught to solve problems by creating equations.

In the 2nd grade, variable inequalities (8 - s>5) are introduced as symbols for letter learners, (a+b; 15-k, etc.); in which inequalities are solved by selection. Practical introduction to variables allows students to acquire functional imagination.

Geometrical material serves the purpose of introducing children to the simplest geometric figures, developing their spatial imagery, as well as demonstrating and concretely illustrating the connections of arithmetical laws (for example, it can be seen from the instructional image of a rectangle divided into equal quadrants used to illustrate the commutative property of multiplication, etc.)

Starting from the 1st grade, the program includes geometric figures - vertices and curves, sections, polygons and their elements, rectangles and cuboids.

Students should be able to visualize geometric figures, learn to name them and make simple ones on grid paper. In addition, they should acquire the ability to find the

length of a cross section and a broken line, the perimeter of a polygon, a rectangle, a square, and the face of any figure in general (with the help of a board).

The problems are such exercises that with their help most of the problems of the primary mathematics course are revealed. For example, with the help of solving problems, the concrete contents of arithmetic operations, properties of operations, connections between arithmetic operations results and their components, and their properties are revealed. In the "Explanatory Letter" given to the program, it is said:" The study of natural numbers and zero aphimatics is built on the basis of a system of problems and practical work in accordance with the purpose. This means that the formation of each new concept is always connected with the solution of one or another problem, these problems help to explain the importance of the concept, and require its application.

Thus, the problems are a means of connecting mathematics teaching with life, connecting the sphere of application of mathematical knowledge with various aspects of mathematical concepts with sufficiently different life situations. In addition, in the process of solving problems, students acquire skills and abilities that will be needed in life.

We see that the content of the primary mathematics course is very large. The development of mathematical memory, thinking, attention, creative imagination and creativity should not be excluded. The teacher has real opportunities to develop children's logical thinking in mathematics classes, and these opportunities should be fully used.

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