

CONCEPTUAL PROVISIONS PRIMARY MATHEMATICS EDUCATION

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Abstract. *The content of educational subjects helps the child to create and maintain the integrity of the picture of the world, ensures his awareness of the various connections between objects and phenomena, and develops the ability to see the same object with different sides. One of the leading features of this kit lies in its integrity: the unity of the structure of textbooks for all grades and subjects; unity of end-to-end lines typical tasks; unity of approaches to organizing educational and extracurricular activities.*

Keywords: *arithmetic, actions, additions, multiplications, divisibility, division, subtraction, equations.*

In primary and secondary schools, mathematics is subject of general education and here there are two levels -basic and advanced. In high school it is expected partial vocational guidance for students and specialized mathematics courses of a specialization nature are transferred to high school. Thus, the central thesis of the concept highlights the “level” and “profile” differentiation of training as most consistent with modern ideas of Russian and world pedagogy and psychology. Mathematics is part of general education. Not a single area of human activity can do without mathematical knowledge and intellectual qualities that develop in the course of mastering this academic subject. School mathematics education contributes to:

- mastery of specific knowledge necessary for orientation in the modern world and for continuing education;
- acquisition of logical, algorithmic skills and critical thinking;
- formation of a worldview that provides an understanding of the relationship between mathematics and reality, mastery of mathematical methods for understanding reality.

The priority direction of new educational standards is to realize the developmental potential of general secondary education. The role of mathematics in realizing the developmental potential of education is defined in the concept of the national curriculum for mathematics education, the Head of State of the Republic of Uzbekistan adopted the Resolution on the Improvement of Education in 2020 on May 7 [4]. The main provisions of this concept are based on the idea of personality-oriented learning and are aimed at implementing a harmonious combination of the interests of the individual and society in the process of teaching mathematics. The concept clearly indicates the fact of coexistence in the methodological system of teaching mathematics of two general functions of school mathematics education: education with the help of mathematics and mathematics education itself.

In the current system of school mathematics education, the function of mathematics education itself is dominant, which often leads to doubts about the need to study mathematics, especially at the senior level of school. Ideas for person-centered training also requires a reconsideration of the significance of this function, taking into account the modern social situation.

In the context of education through mathematics educational field "Mathematics" acts as a subject general education. In accordance with this main function.

The task of teaching mathematics becomes not the study of the fundamentals of mathematical science as such, but general intellectual development - the formation in students, in the process of studying mathematics, of the qualities of thinking necessary for the full functioning of a person in modern society, for the dynamic adaptation of a person to this society. The corresponding function of mathematics is called general education.

The social significance of mathematics itself education is due to the need to maintain and increasing the traditionally high level of studying mathematics that has developed in the domestic school for the formation of the future personnel scientific, technical, technological potential of Russian society, that is, in the context of mathematical education itself, the educational field "Mathematics" acts as an educational subject of a specializing nature. Teaching mathematics is considered as an element of students' professional preparation for relevant fields of activity after leaving school, including obtaining higher education in relevant specialties. This function of mathematics is called specializing.

Along with the designation of two general functions school mathematics education, the concept distinguishes levels of mathematical training.

- General or basic level of preparation necessary for everyday life, which should include the most important elements of the mathematics course that represent a special value for the development of intelligence and the formation of students' worldview.

- Application or profile level is what must have, future engineers, technologists, economists and specialists of other professions who will use mathematics in your work.

- Creative level is the level of training of future scientists and researchers.

In primary and secondary schools, mathematics is subject of general education and here there are two levels -basic and advanced. In high school it is expected partial vocational guidance for students and specialized mathematics courses of a specialization nature are transferred to high school. Thus, the central thesis of the concept highlights the "level" and "profile" differentiation of training as most consistent with modern ideas of world pedagogy and psychology.

Taking into account the humanitarian orientation of teaching mathematics and understanding of the absolute need for everyone to acquire students of a certain amount of specific mathematical knowledge and skills, goals of school mathematics education are formulated as follows:

- intellectual development of students, formation qualities of thinking characteristic of mathematical activity and necessary for a person to live a full life in society;

- formation of ideas about mathematics as a part universal human culture, understanding the importance of mathematics for social progress.

- formation of ideas about the ideas and methods of mathematics, about mathematics as a form of description and a method of cognition reality;

- mastery of specific mathematical knowledge, necessary for use in practical activities, to study related disciplines and to continue education.

In other words, in the process of learning mathematics, everyone the student must master a complex of mathematical knowledge, skills and abilities necessary for everyday life and for professional activities, the content of which does not require the use of mathematical knowledge and for continuing the study of mathematics in any form of continuing education.

The orientation of education not only on the acquisition of a certain amount of knowledge, but also on the development of personality, has determined inclusion in the planned educational

outcomes of a significant block of universal educational activities: personal, cognitive, regulatory and communicative.

In accordance with the new standard [2], the conceptual basis of training becomes a systemic-activity approach, which includes the implementation of the ideas of systemic, activity-based and personal approaches and makes it possible to implement the main provisions of the concept of the development of mathematics education.

The essence of the systems approach is that relatively independent components of the educational process are not considered in isolation, but in their interrelation, in a system with others. With a systematic approach, the pedagogical system of teaching mathematics is considered as a set of interrelated components (the goal of mathematical education in primary grades, subjects of the pedagogical process, content of education, methods, forms, means of teaching), aimed at achieving the main goal of education - the formation of an individual with a clear focus on self-knowledge, self-development and self-realization.

The activity approach allows us to consider educational activity as a joint, productive activity of the teacher and the child based on cooperation. In order for an activity to be developmental in nature, it must meet the needs, interests and goals of the student and must be recognized by the child.

The personal approach affirms ideas about the social, active and creative essence of a person as an individual and means orientation in planning and implementation pedagogical process on the individual as a goal, subject, result and the main criterion of its effectiveness. He demands recognition of the uniqueness of the individual, his intellectual and moral freedom, the right to respect. Within the framework of this approach, it is assumed that education will rely on the natural process of self-development of the inclinations and creative potential of the individual, and the creation of appropriate conditions for this.

Modern mathematics education is based on the following set of principles:

- continuity, which involves the study of mathematics throughout all years of schooling;
- the scientific principle, which requires the selection of mathematical knowledge corresponding to mathematical science;
- continuity, implying balanced consideration positive experience accumulated by domestic mathematical education and the realities of the modern world;
- variability of methodological systems, providing for the possibility of implementing the same content based on various scientific and methodological approaches;
- differentiation, which allows students throughout their education to receive mathematical training at different levels in accordance with their individual characteristics (level differentiation) and provides the opportunity to choose the type of mathematical education at senior level (profile differentiation);
- the principle of activity, which involves the use such teaching methods and techniques that place the child in active position, including them in the process of obtaining and independently using the acquired mathematical knowledge.

The listed principles create the prerequisites for a harmonious combination in teaching of the interests of the individual and society, for the implementation in educational practice of the most important idea of modern pedagogy - the personal orientation of mathematical education.

Modern concepts of variable educational systems and educational and methodological kits.

The main focus of the educational system L.V. Zankova – achieving optimal overall development younger schoolchildren [32]. The concept was formulated in the 60s years of the 20th century. The following provisions remain fundamental in it.

Firstly, the development of mental activity includes three lines: mind, will and feelings. The development of mental activity involves the classification of objects and concepts: analysis of the conditions of tasks and assignments, formulation of conclusions. The formation of generalizations is oriented towards both inductive and deductive paths, depending on the nature of the knowledge.

Knowledge, abilities and skills act as teaching aids and means of organizing the learning process. Basic requirements for content, methods, forms, effectiveness systems correspond to its main idea - the idea of creating conditions for optimal overall development of the child.

The result is achieved using a developmental methodology - the discovery of new knowledge through a problem situation (collision), using a variety of methods. By The mathematics textbook in this system is M.I. Dzhumaev. The content of mathematical education in this system is aimed at implementing the following tasks:

- contribute to the advancement of the student in general development, the formation of moral positions of the child's personality, not harm his health;

- to give an idea of mathematics as a science that generalizes existing and occurring phenomena in real life and thereby promoting knowledge of the surrounding world, creating a broader picture of it;

- to form the knowledge, skills and abilities necessary students in life and for successful continuation of education in the main part of the school.

The basic principles of the system, which are implemented through mathematical education, include:

- training at a high level; difficulty in complying with measures of difficulty;
- the leading role of theoretical knowledge;
- fast pace of learning material;
- students' awareness of the learning process;
- systematic work on the development of all students, including the weak;
- constant care for the mental and physical health of all students.

The main way of learning a mathematics course is inductive; new knowledge is revealed through a problematic situation (“collision”); During the learning process, schoolchildren develop an active personal position towards mathematics (mathematical facts, phenomena, concepts, patterns, situations of practical application of knowledge and skills).

In the process of learning, the primary school student forms and develops general educational intellectual skills: observe, compare, generalize, classify, etc.

A student trained using this kit is distinguished by the presence of such characteristics of activity as analyzing observation, abstract thinking, as well as the ability to apply knowledge in educational and extracurricular situations.

The originality of the conceptual provisions of educational systems D.B. Elkonina - V.V. Davydov [27] is that its application is specifically aimed at the formation and development of theoretical consciousness and thinking among younger schoolchildren based on their assimilation of theoretical knowledge in the form of educational activities. The main task of teaching mathematics is the formation of mathematical concepts in younger schoolchildren on the basis of

meaningful generalization. The program is built on the basis of the theory of educational activity. System D.B. Elkonina - V.V. Davydov is based on the following set of principles: the search principle, the modeling principle, the principle of setting an educational task, the principle of meaningful generalization.

The main content of the course is the formation the concept of number, which is core to all school mathematics. However, unlike other educational systems, the genetically initial ratio is the ratio of quantities, on the basis of which the idea of number is formed.

The mathematics course is presented as a sequence strategic educational tasks: formation of the concept of quantity, disclosure of the relationship of quantities as a universal form numbers; sequential introduction of various private types numbers as a specification of the general relationship of quantities under certain conditions; construction of generalized methods of operating with numbers.

In the course of mastering the skills of educational activities, the primary school student develops and improves his ability to carry out actions in the internal and external planes, move from mental actions to practical ones and back.

“Promising primary school” - scientific director M.I. Dzhumaev [6]. The concept of educational and methodological kit is based on the humanistic belief that everything .Children are able to succeed in primary school if they the necessary conditions have been created for them. Taking into account the recipient's age textbooks makes the learning process successful. The authors of the kit are guided by the fact that a child’s experience is not only his age, but also the image of the world that is determined by his communication with the natural environment. A child’s experience is not only the experience of city life with developed infrastructure and diverse sources of information, but also the experience of rural life with a natural rhythm.

As the authors emphasize, the typical properties of the national curriculum “Prospective Primary School” are:

- completeness ensures unity of installation formation in the educational process of universal learning skills, exchange of information between textbooks, demonstration of different points of view when explaining new things material;

- instrumentality is subject-specific and methodological mechanisms that promote the practical application of acquired knowledge; this is not only the inclusion of dictionaries for various purposes in all textbooks, but also the creation of conditions for the necessity of their use; this is a constant organization of special work to search for information inside the textbook, the set as a whole and beyond;

- interactivity – Internet addresses in the textbooks of the set are designed for the future development of conditions for using a computer in all schools;

- integration is the desire to create synthetic, integrated courses that give schoolchildren an idea of a holistic picture of the world.

Educational space standard education ensures the formation, development and retention of students interest in educational activities; intellectual, emotional-value, social-personal, cognitive, aesthetic development and self-development of the child; creating conditions for them to demonstrate independence and creativity; preserving and strengthening the physical and mental health of children by building for each student their own trajectory for mastering educational material.

The content of educational subjects helps the child to create and maintain the integrity of the picture of the world, ensures his awareness of the various connections between objects and phenomena, and develops the ability to see the same object with different sides. One of the leading features of this kit lies in its integrity: the unity of the structure of textbooks for all grades and subjects; unity of end-to-end lines typical tasks; unity of approaches to organizing educational and extracurricular activities.

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