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HISTORICAL REVIEW AND THE CURRENT STATE OF THE METHODOLOGY FOR THE DEVELOPMENT OF MATHEMATICAL REPRESENTATIONS IN PRESCHOOLERS

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Annotation:
This topic reveals the importance of mathematical education of preschoolers in the light of modern requirements of society. The main tasks and content of the discipline are considered. The influence of psychological and pedagogical research on the development of the methodology. The study of the problems of the formation of mathematical representations in preschoolers. General characteristics of the main stages of the development of the methodology in retrospect.

Keywords: purpose, objectives, subject, object of research of the theory and methodology of mathematical education of preschoolers, stages of development of the methodology.

INTRODUCTION

Theory and methodology of mathematical education of preschoolers is an independent scientific and educational discipline. Initially, it existed within the framework of preschool pedagogy, but having accumulated considerable empirical experience, as well as a fairly large amount of scientific information, it gradually turned into an independent branch of knowledge. In the system of pedagogical sciences, it 6 is designed to promote the intellectual and comprehensive development of the child, taking into account the uniqueness, uniqueness, support
of individual needs and interests of orientation to the natural
potential of each child.

MATERIALS AND METHODS

Studying this topic, students should understand the content and essential characteristics of each stage of the development of the methodology; learn to prove the validity of modern views on the formation and development of mathematical representations of preschoolers, based on historical facts, methodological systems of the past; master the skills to establish connections and dependencies in the historical process of the formation of the theory and methodology of the formation of mathematical representations in preschool age. To study this topic, students need to turn to the textbook.

In the development of the theory and methodology of the development of mathematical representations, historical stages of formation can be distinguished.

The first stage is the empirical development of the methodology. The issues of mathematical development of children have their roots in classical and folk pedagogy. Various counting books, proverbs, sayings, riddles, nursery rhymes were good material in teaching children to count, allowed the child to form concepts about numbers, shape, magnitude, etc. Later, at this stage, the idea of the need for mathematical development of preschool children was put forward.

The second stage is the initial stage of the formation of the theory and methodology of mathematical development of preschoolers. Definition of the content, methods and techniques of working with children, didactic materials.

Historically, this stage refers to the 20-30 years of the 20th century.

The third stage is the creation of a scientifically based didactic system for the formation of elementary mathematical concepts in preschool age: the definition of the content, methods and techniques of working with children, didactic materials. This stage continued with 50s of the 20th century. A.M. Leushina studied the theory and methodology of development 10 quantitative and numerical representations of children in the learning process.

The fourth stage is Psychological and pedagogical research 60-70 years of the 20th century. The regularities of the formation of ideas about the number, the development of counting activity, computing activity were studied. It was justified by the need to start teaching children from an early age, with the perception of sets of objects, followed by teaching counting, highlighting the relationships between numbers. Didactic materials, manuals, and games were developed.

Fifth stage - the current state of theory and methodology mathematical development of preschool children. Since the 80s 20 century to the present. The current state of the theory and methods of development of mathematical representations in children preschool age developed in the 80-90s and the first years of the new centuries under the influence of the development of ideas for teaching children mathematics, and reorganization of the entire education system. Already in the 80s began discuss ways to improve both content and methods teaching preschoolers mathematics. As a negative point there was an orientation towards the development of object actions in children, mainly related to counting and simple calculations, without the proper level of their generalization. This approach did not provide preparation for the assimilation of mathematical concepts in the future learning. Experts studied the possibilities of intensification and learning optimizations that promote general and mathematical development of the child, noted the need to increase theoretical level of knowledge mastered by children. It required reconstruction of the training program. The search for ways has begun enrichment of learning content. Solving these complex challenges carried out in different ways.

RESULTS AND DISCUSSION

The discipline is associated with many sciences and, above all, with those who study different aspects of the child's personality, the process of his education and development. The closest relationship with preschool pedagogy. This discipline gives knowledge of the principles, conditions, content, methods, means, forms of organization of pedagogical process in kindergarten. Private methods allow to carry out integration in the education of preschoolers: combining mathematics and theories and methods of speech development, theories and methods of physical education, theory and methods of musical education and etc. contributes to a more complete assimilation of mathematical representations by the child. Preparing to learn mathematics at school cannot be carried out without connection with the methodology of primary education mathematics. The most productive technologies are developed in the kindergarten-school system. Psychological features and patterns of perception the child of a multitude of objects, numbers, space, time are the basis for the development of a methodology for the formation and development mathematical representations. Psychology determines age children's ability to acquire knowledge and skills, and also indicates ways to accompany an individual route of a mathematical child development. The rational construction of the learning process is associated with the creation optimal conditions based on anatomical and physiological characteristics of young children. Flow patterns physiological processes in preschoolers serve as the basis for definition of forms, place and duration of training for each the age of the children. Particular attention should be paid to the connection with informatics. Today special computer science programs have been developed for preschoolers. Specialized computer environments are organized for teaching children mathematics. Communication with various sciences creates a theoretical basis method of development of mathematical representations.

CONCLUSION

Methods of mathematical development of preschoolers constantly develops, improves and enriches the results of scientific research and innovation. Regularly performed and protected candidate and doctoral dissertations. Teaching mathematics should be built taking into account patterns of development of cognitive activity, personality child, which is the subject of study of psychological sciences. Perception, representation, thinking, speech, not only function, but also intensively develop in the learning process.

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