LOGICAL THINKING DEVELOPMENT OF SENIOR PRESCHOOLERS AS AN IMPORTANT COMPONENT OF GETTING READY FOR SCHOOLING

The article considers the relevance of the issue forming mathematical competence forming in preschoolers, in particular the problem of logical thinking development. The key aspects of the pointed issue are outlined in the article. The results of scientific researches and opinions of the scientists on the problem are presented; brief analysis of educational programs for preschoolers is presented in the article too.

It is known, that preschool education is a mandatory primary component of the continuing education system in Ukraine [6]. The Basic Component of Preschool Education presents state requirements for mastering mathematics by preschool children. The emphasis is also placed not only on purely mathematical skills, but also on logical ones, the formation of future first-graders ability to think clearly, systematically, creatively, generalize, draw conclusions and oral calculations [4].

It indicates that the problem of developing logical thinking in preschoolers is extremely relevant today, and the processes of reforming the preschool education system should focus on the development of logical thinking in children, the formation of skills to perform mathematical and logical operations. At the same time, a special place belongs to the acquisition by senior preschoolers of knowledge related to orientation in space and time, working with sets, counting and solving the simplest arithmetic problems, etc., which will contribute to the future adaptation of children to school. These skills are extremely important for future professional activity and achieving success in further life in general.

The raised problem is multidimensional and is based on scientific, theoretical and experimental developments of leading psychologists and teachers. The research that has begun requires the need to refer to the main definitions, in particular, to find out the concepts of «logic», «logical thinking», «development of logical thinking».

The term «logic» is used to define the laws of the objective world («logic of facts», «logic of things», etc.), clarity, consistency and regularity of the thinking process («logic of thinking», «logic of reasoning»). Any reasoning that is devoid of logic becomes wrong. Logic is the science of laws, forms and techniques of thinking that ensure the achievement of objective truth in the process of reasoning and cognition [1]. The subject of studying logic is the process of thinking.

Logical thinking is a necessary means of mastering material in any field of knowledge, including mathematics. Thinking is the highest cognitive process, a form of creative reflection of reality by a person. This is a special kind of mental and practical activity, which involves the inclusion of actions and operations of a transformative and cognitive nature [13].

Thinking is the most important function of the human brain. None of the activities can do without it, as it is the basis for successful assimilation of new knowledge, skills and abilities. That is why it is so important to form the basics of logical thinking in children even before they start their studies at school [13, 3]. This is evidenced by numerous scientific psychological and pedagogical studies: N. Martyniuk, A. Fedorenko, V. Kurbeilo, V. Osynska, L. Vorobiova, T. Mikhailovych, H. Lavreshyna; the problem of developing logical thinking in solving problems is devoted the works of M. Kozak, Ya. Korol, F. Nagibin, E. Ignatiiev, D. Klymchenko and others.

The scientists interpret the content of the concept «logical thinking» in different ways. We are impressed by the opinion of K. Krutii, who understands logical thinking as fluency in a certain set of elementary logical concepts and actions that make up the alphabet of logical thinking and the necessary basis for its development [7]. The development of logical thinking in preschoolers to one degree or another occurs during familiarization with the world around them in all its relationships and addictions, but mathematics occupies a special place. The results of children's academic achievements in mathematics are largely determined by the quality of the curriculum.

We briefly analyzed the programs recommended by the Ministry of Education and Science of Ukraine regarding the availability of tasks for the mathematical development of preschoolers and the development of logical thinking, in particular.

Educational program «Confident Start» for senior preschoolers under the general scientific editorship of T. Pirozhenko. In the educational section «Cognitive and Research Activities» there is a section «Elementary Mathematical Representations», which provides for the formation of children's interest in tasks of logical and mathematical content and interest in the creative use of their own knowledge and skills, the search for possible ways to use objects in various types of activities; the formation of interest in logical and mathematical actions based on sensory feelings; teach children to perform elementary cognitive (logical and mathematical) actions: compare, analyze, generalize, count, list, compare the size of objects (by superimposing, attaching, attaching), etc. [5].

Educational program for children from 2 to 7 years old «Dytyna». The section «Child in Sensory-Cognitive Space» reflects the content of work with children of early and preschool age, which is aimed at enriching their experience with a variety of sensory impressions, the formation of children's skills to navigate sensory standards (color, size, shape), their types, signs, properties. The authors of the program offer didactic games for the logical and mathematical development of children, as well as approximate planning of classes, depending on the age of children.

We also have analyzed the educational programs «Stezhyna». It is a comprehensive alternative educational program for preschool educational institutions working on Waldorf pedagogy. The authors of this program are A. Honcharenko, N. Diatlenko; «Child in Preschool Years» is comprehensive educational program, Authors of this program are A. Bohush, T. Hrytsyshyna, O. Demianenko and others. The choice of these programs for analysis is justified by the fact that they are quite regionally distributed.

Analysis of the content of these pointed programs for the implementation of tasks for the development of logical thinking in senior preschoolers allowed us to

determine common and different approaches to the implementation of the content of mathematical development of preschoolers in general, and conclude that the logical component is insufficiently represented in each of them. As a result, the problem of children's logical skills forming and logical thinking development remains out of the proper attention of teachers, although the quality of the child's preparation for school depends on it.

The goal of preschool teachers and parents is to help children, because it is impossible to make school life easier for children by solving all their problems and doing everything for them. To foster their ingenuity and help them develop logical thinking skills, parents and caregivers should teach their children how to use their memory reserves. When organizing the educational process, preschool teachers should be guided by the provision that the game is the leading activity of preschoolers: children are more interested and less tired in classes with game plots.

Training should be organized using logic games and logic exercises. Logic exercises include: solving math problems, math puzzles, designing three-dimensional structures using toys such as puzzle blocks, and playing logic games.

Stimulating the development of logical thinking in children at preschool age improves mental operations, which leads to an increase in the level of cognitive activity and an increase in the ability to solve intellectual problems. Only by giving children the freedom to think and reason, developing their logical thinking can they help them understand what is right and what is not. Trial and error is useful for learning.

The prospects of our further scientific researches will be a methodology of developing algorithmic actions in senior preschoolers in the process of solving logical problems.

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