Formation Of Logical Thinking Skills Among Students In Preschool Educational Organizations

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ABSTRACT

At present, the issue of preparing a child for schooling with account for his age, psychophysiological and individual characteristics is high on the agenda. The importance of the problem lies in the search for new methods and technologies aimed not only at the development of certain skills, but rather at the overall, harmonious and all-round development of the child, which allows him not only to preserve but also to increase his resource potential. The article illustrates the method of pictograms, which allows forming verbally-logical and abstract-logical thinking in children (at the initial level at this point) already at the stage of preschool childhood.

Keywords: preschool education, pictogram method, pictographic record, verbal and logical thinking, abstract and logical thinking, readiness for school, success in teaching, functions of school significance.

The problem of a child's readiness for school is very relevant in the framework of modern realities. However, despite the increased interest in this problem of both teachers and parents, the question of insufficient school readiness of future students, a decrease in their cognitive motivation, even at the stage of preschool childhood, as well as the difficulties that arise in the process of school adaptation. The introduction of the federal state educational standard for preschool education (FSES DO) is designed to reconsider the role of preschool educational organizations in a child's life. Unfortunately, preschool education, especially at senior preschool age, focuses not so much on the holistic, comprehensive and harmonious development of the child, but on his targeted preparation for school, without taking into account the individual development of the child.

However, often the problem lies not only and not so much in the fact that a child in preschool childhood gets acquainted with letters, numbers, learns to read, perform simple logical operations, but in an incorrect or incorrect pedagogical approach and the use of pedagogical programs and technologies that do not correspond to age, individual and psychophysiological characteristics of preschool children

Today it is important to understand that the main task of preschool education is to provide the child with a full life (and not survival) of preschool childhood, creating conditions for his positive socialization and individualization, shaping the child as a person capable of making an informed choice and being responsible for it, developing his general culture . Moreover, all this should be implemented through the leading activity of preschool children - the game. Only in this case

we will be able to form a successful, harmonious, integral personality of the child and provide him, which is especially important, stress-free preparation for school at all levels (physical, cognitive, speech, social, personal, emotional) . The pedagogical author's technology "What is a pictogram" is developed taking into account the age and psychophysiological characteristics of children of senior preschool age, all classes are held in an interesting game form using well-chosen illustrative and didactic material. In the process of organizing and conducting classes, children are full participants in the educational process, the tasks are designed in such a way that the main emphasis is on the formation of activity, initiative and independence in the child, as well as the development of imagination, literate speech, the formation of a respectful attitude towards the world, the development of creative thinking and prerequisites for the development of verbal-logical and abstract-logical thinking.

The problem of the formation of the main neoplasms of preschool age still remains one of the central ones for developmental psychology [2, 8]. In the context of this problem, the author's technology "What is a pictogram" allows you to solve such important tasks as the development of abstract-logical and verbal-

Formation of the prerequisites for verbal-logical thinking in children of senior preschool age using the pictogram method logical thinking of the child, the formation of his sign-symbolic function of consciousness, the development of contextual and written speech, which is the basis for further successful learning.

Thus, competently and consistently organized work on introducing children to pictograms and mastering the pictographic record by them contributes to the development of all types of thinking (visual-effective, visual-figurative, abstract-logical and verbal-logical) in a system that ensures their close interaction, as thought processes become more complicated as soon as children begin to actively use symbols. This technology leads the child to use pictographic signs and symbols to express their thoughts at a level accessible to them. The child receives from the teacher a system of signs and symbols that are close to him in terms of visual perception and at the same time are a reflection of practical connections and relationships between objects and objects of the surrounding world. The game motivation used in the classroom includes the child in the situation of action by these symbols in the laws of semantic (semantic) language constructions.

Such actions with signs or symbols that are immutable lead to the development in children of abstract - abstract thinking and logic, the rules of which are subject to abstract-logical and verbal-logical thinking. Working with visual material, the active use of sign-symbolic means (from the use of schematic images, modeling situations, practical actions to update images - representations to perform logical operations of comparison, analysis, generalization, classification, establishing analogies) allows the child to master technology and technology without stress and effectively. contributes to the successful development of verbal-logical and abstract-logical thinking.

In addition to the studied parameters, the following positive side effects were diagnosed, namely: an increase in subjective activity in children, a decrease in fear during public speaking, an increase in the activity of children in the process of interpersonal communication, and harmonization of the intragroup climate.

This technology is addressed to educators and methodologists of preschool educational institutions, but it may be interesting and useful for elementary school teachers, as well as students undergoing teaching practice in preschool educational institutions and schools. The implementation of the technology does not require large material costs and can be implemented in preschool educational institutions with any level of funding, which is very important in the framework of modern realities. The effectiveness of the method and the ease of its application make it possible to use this technology in various institutions by teachers of different levels of preparedness.

An analysis of many foreign sources shows that such components of cognitive and

socio-emotional skills as creative and critical thinking, problem solving, the ability to work in a team, the ability to learn, are basic skills, and activities based on them strengthen these skills. Computational thinking as a cognitive process, obtained through the contact of mankind with computer and digital technology [6], is currently in the center of interest of specialists in many fields, especially programmers, teachers and psychologists.

Paying attention to how logical thinking is formed in preschool age, we chose the scientific work. Figurative thinking has five substructures that intersect and complement each other. From the age of three, the topological substructure begins to form, from the age of four, the projection substructure, from the age of five, the ordinal and then the metric substructure, and at the age of six, the algebraic substructure is formed. Studying these substructures, we can conclude that logical and algorithmic thinking are not synonymous and can be formed spontaneously, also helping each other to develop. But the more complex forms that are needed for programmers and for the development of higher order skills require purposeful and systematic methodical work, starting from preschool age.

If the development of a higher and more complex order of skills is the first problem, then the second problem is how to show these skills in practice, that is, to express oneself. The first problem can be solved by purposeful and systematic methodical work. The second problem is solved with the help of computer games [18] and visual media.

The technique that we propose is suitable for the first strategy, disconnected from the computer. The introduction of games and tasks for classes in order to form each substructure occurs in the appropriate age groups. These are the games and tasks that I. Ya. Kaplunovich gave in his scientific work,in integration with games and tasks for working with a linear, branching and cyclic algorithm, starting from the younger group, since from the age of four children can work with algorithms.

The main goal of introducing the methodology of I. Ya. Kaplunovich is that we begin to work with three-year-old children; many researchers start working with four-year-old children, but in fact the topological substructure, which is the most important and responsible for the following substructures, is formed in children from the age of three. Therefore, it is necessary to start the development of children with a focus on programming from this age in a playful way. Games can be introduced to all types of classes - individual, frontal, group.

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