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## **FORMATION OF SENSORY PERCEPTIONS ABOUT SENSORY STANDARDS IN CHILDREN OF LOW-KINDERGARTEN AGE THROUGH EXPLORATORY ACTIVITIES**

The formation of sensory perceptions is a crucial stage in the development of middle preschool-age children, as this is the period when they actively explore the surrounding world, develop perception, attention, thinking, and imagination. Mastery of sensory standards enables children to navigate the properties of objects, compare them, identify key characteristics, and develop analysis and synthesis skills, which serve as the foundation for further intellectual growth.

A significant condition for the formation of sensory standards is engaging children in exploratory activities that foster cognitive interest, independence, and initiative. Such activities allow children not only to observe and experiment but also to draw conclusions, reinforcing acquired knowledge. Through this process, children learn to compare objects based on specific features and evaluate their characteristics, aiding in the development of clear sensory standards.

Human understanding of the world begins with direct observation, sensation, and perception. Well-developed sensory perception is fundamental for enhancing practical skills in modern life. The enrichment of sensory development provides an intellectual foundation for a child's growth, serving as the basis for logical-mathematical understanding, constructive skills, and comprehension of object properties. Therefore, early childhood education focuses on enriching children's experiences with diverse sensory impressions and fostering the ability to recognize and classify sensory standards based on their types, characteristics, and properties. The goals and objectives of sensory development in preschool-age children are outlined in current preschool education programs such as *"Dytyna"*, *"I Am in the World"*, and the *Basic Component of Preschool Education* (2012) [1].

The aim of this study is to identify the characteristics of forming sensory perceptions in middle preschool-age children through exploratory activities and to determine effective methods and tools that optimize this process.

Sensory development is essential for acquiring any practical skills. Logical thinking originates from sensory perception. The role of sensory education in preschool development is invaluable, as cognitive growth directly depends on the functioning of the senses. Throughout the history of preschool pedagogy, no educational system has ignored the importance of sensory education. Research in pedagogy and psychology has demonstrated that well-developed sensory organs are a prerequisite for intelligence and personality development.

Numerous researchers have explored sensory education, including international scholars such as M. Montessori, J. H. Pestalozzi, O. Decroly, R. Steiner, and F. Fröbel.

Among Ukrainian educators, E. I. Tikheeva, S. F. Rusova, N. N. Poddyakov, L. A. Venger, and A. S. Simonovich have contributed significantly to this field. These scholars emphasized that sensory development is a fundamental aspect of sensory education and ensures a child's comprehensive growth from early childhood through the preschool years.

Sensory standards are representations of object qualities developed by humanity throughout social and historical evolution. The primary sensory standards include:

1. **Shape Standards** – The introduction of geometric shapes in sensory education differs from their study in early mathematics. The goal of sensory education is to recognize, name, and manipulate these forms rather than analyze them deeply. Introducing children to basic shapes like circles, squares, and triangles helps them explore form through visual and tactile activities. Gradually, children expand their knowledge to include three-dimensional objects such as cubes and spheres, learning to identify their characteristics through visual and tactile exploration. Preschoolers also learn to relate everyday objects to geometric shapes, such as distinguishing a rectangle from other geometric forms.

2. **Size Standards** – These are relative measurements used in sensory education. Unlike mathematical training, sensory education does not require a formal metric system but instead focuses on comparing objects based on their placement in a sequence of similar items.

3. **Understanding Size Relationships** – As children progress, they transition from comparing two or three objects to working with a broader set of items arranged in increasing or decreasing order.

4. **Color and Shape Variations** – Children are introduced to different shades of colors, geometric shape variations, and size relationships within ordered sets of objects. They also develop observational skills, learning to classify objects based on sensory standards, perform sequential examinations, describe forms, and refine visual estimation skills [3].

Preschool-age children should develop analytical perception—the ability to recognize color combinations, differentiate dimensions, and distinguish object shapes.

The period from birth to 5.5 years is optimal for sensory development. A healthy child naturally perceives the world through sight, hearing, smell, and taste. However, M. Montessori argued that a high level of sensory perception requires deliberate training. This training is facilitated through specialized Montessori materials that help children recognize object properties such as size, shape, and color.

Sensory abilities develop in a structured sequence:

1. **Formation of Sensory Standards** – Children acquire stable verbal concepts of colors, geometric shapes, and size relationships among multiple objects.

2. **Mastery of Object Exploration Methods** – Children learn to differentiate objects by shape, color, and size while developing increasingly complex visual estimation skills.

3. **Development of Analytical Perception** – Children refine their ability to analyze color combinations, evaluate object shapes, and distinguish measurable attributes [2].

The *Basic Component of Preschool Education* defines sensory and cognitive developmental goals for various preschool age groups.

Thus, exploratory activities are a natural way to form sensory perceptions in middle preschool-age children. These activities enhance children's ability to understand the properties of their surroundings and lay the groundwork for future intellectual development. Through engaging experiments and independent exploration, preschoolers gain a deeper comprehension of the world and develop essential sensory skills that will support their continued learning.

The content of sensory education and development in preschool institutions includes familiarizing children with sensory standards, developing perceptual actions, and applying them in practical activities. According to the *Basic Component of Preschool Education*, the complexity of sensory and mathematical tasks gradually increases with age, and new material is reinforced through previously learned concepts.

## REFERENCES

1. Базовий компонент дошкільної освіти / наук. кер. А. М. Богуш та ін. Київ, 2012. 26 с.
2. Барбашова І. А. Сучасні підходи до сенсорного виховання молодших школярів: зб. наук. пр. Бердян. держ. пед. ун-ту: Педагогічні науки. Бердянськ, 2008. № 1. С. 29–36.
3. Бондар В. І, Ільченко А. М. Психолого-педагогічні основи розвитку дітей в системі М. Монтесорі: навч. посіб. Полтава: РВВ ПДАА, 2009. 252 с.
4. Кривоніс М. Л., Дроботій О. Л. Сенсорний розвиток: з досвіду роботи 5–6 (7) років. Харків: Видавництво «Ранок», 2012. 256 с.