



SENSORY SPEECH DEVELOPMENT TRAINING IN SURDOPEDAGOGY

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ABSTRACT

The psychophysiological development of preschool children is inextricably linked with speech, perception, sensation, and sensory experience. In children with speech developmental disabilities, sensory processes often proceed slowly, unevenly, or distortedly. Sensory development includes the formation of all types of perception: auditory, visual, tactile, kinesthetic, and sensory integration. The psychological foundations of sensory development are widely covered in the scientific views of such scientists as Vygotsky, Luria, Leontiev, Piaget, and Ayres. Sensory processes play a central role in the development of perception, thinking, memory, and speech. Speech delays are usually associated with weak sensory perception

Preschool age is the period of the most intensive psychophysiological development of a child, which is especially important in the formation of speech, perception, attention, and sensory functions. Children with speech developmental disabilities often experience delays not only in phonetic-phonemic processes but also in sensory processes, perceptual systems, motor coordination, and all forms of communication. Therefore, sensory development in working with children with speech impairments is a central component of the scientific and methodological system.

Sensory hearing disorders negatively affect the formation of phonemic perception. Delays in visual perception lead to a lack of vocabulary expansion. Weakness of tactile and kinesthetic perception weakens articulatory motor skills. Lack of sensory integration affects the logical sequence of speech. Sensory development is the process of a child's perception, differentiation, analysis and synthesis of the external world through the sensory organs, classification, formation of ideas about such properties as shape, color, sound, volume, movement, distance. This process directly affects the vocabulary of the child's speech, the assimilation of grammatical constructions, phonemic hearing, understanding of the meaningful layers of speech, and the formation of logical connections.

Sensory development is one of the main cognitive processes explained by such scientists as Vygotsky, Leontiev, Luria, Piaget, Galperin, Elkonin. According to Piaget, the age range of 2-6 years is the period when logical thinking is formed based on the child's sensory-motor experience. L.S. Vygotsky, speaking about the interaction of speech and perception, emphasizes that the cause of speech delay is often a violation of sensory processes. In children with speech impairments, the processing of information through the sensory organs slows down, which creates difficulties at all levels of speech activity. Sensory development depends on the expansion of the child's life experience and active interaction with objects.

Phonemic hearing impairment is associated with insufficient development of the sensory auditory system. Disorders of articulatory-motor coordination arise from a lack of tactile and kinesthetic sensation. The slow growth of vocabulary can be associated with the weakness of visual perception. The inability to master grammatical constructions indicates the underdevelopment of sensory-

logical classification. The situational nature of communication stems from the narrowness of sensory experience and insufficient imagination. Sensory hearing disorders include:

1. Difficulty in distinguishing phonemes.
2. Inability to distinguish sound strength, pitch, and timbre.
3. Difficulty in identifying the sound source.
4. Inability to understand speech when listening quickly.
5. Sound alternation, distortion, addition of additional phonemes.

Disorders of visual perception include:

1. Slow formation of the ability to distinguish shapes and colors.
2. Difficulty in distinguishing the contour of the object.
3. Low visual-motor coordination.
4. Incomplete perception of images.
5. Inability to understand the differential characteristics of objects.

Disorders of tactile and kinesthetic perception include:

1. Low sensitivity of the fingers.
2. Difficulty in distinguishing the temperature and texture of an object.
3. Weakness of kinesthetic sensation of the articulatory organs.
4. Uncertainty in action planning.
5. Disorders of coordination in physical movements.

Sensory integration disorders:

1. Inability to combine information received through multiple sensory channels.
2. Slow visual-auditory adaptation.
3. Low adaptive reactions in complex situations.
4. Distraction of attention.
5. Rapid distraction and inability to return to activity.

Methods for developing sensory hearing include sound differentiation exercises, developing rhythmic hearing, and developing phonemic hearing. In the development of visual perception, color differentiation, comparison of shapes, and constructive games are used. Sand, water, plasticine, and textured objects are used to develop tactile sensation. Sensory integration therapy (according to Airbus) is carried out in a multisensory environment.

Sensory perception is enhanced with the help of touch rooms, interactive panels, digital games, AR/VR technologies. Logorhythmic exercises harmonize hearing, movement, and speech. Sensory development based on experience is carried out through the STEAM approach.

Sensory games, tactile exercises, color discrimination, and sound-finding games should be conducted at home. Cooperation between teacher-speech therapist-parent increases effectiveness.

Sensory development is an important component in working with children with speech impairments, which contributes to the formation of speech, the activation of perception, and the development of communication skills. Multisensory approach, therapy, and modern technologies also have a positive impact on children's social adaptation.

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