

INDIVIDUAL CHARACTERISTICS OF NEUROPSYCHOLOGICAL DEVELOPMENT IN SCHOOL-AGED CHILDREN

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Abstract: This article provides information on individual characteristics of neuropsychological development in school-aged children.

Key Words: Educational system, modern technologies, formation of civil society, neuropsychological development.

Introduction

Expanding opportunities to acquire professional knowledge within the education system is crucial for preparing skilled workers and specialists capable of working with new modern technologies. As emphasized by our President Shavkat Mirziyoyev Miromonovich, “Before we wish for our children to become perfect individuals, we ourselves must set an example for them, and engage with students not only during class but also in extracurricular times”. Our country is undergoing profound changes, with consistent reform and liberalization in all aspects of political and socio-economic life, aimed at democratic renewal and modernization of our society. Significant tasks are being systematically implemented to create a strong civil society, as laid out in the comprehensive programs initiated by our President. Neuropsychological development in school-aged children is marked by the maturation of different brain structures at various stages of ontogenesis. Each age period has distinct neurophysiological conditions conducive to the formation and development of cognitive functions. Every child possesses unique characteristics in their development and learning processes. The cerebral hemispheres, especially the cortex, undergo complex differentiated development, influencing high mental functions (HMF). Importance of the Limbic System

The limbic system, comprising five main structures (thalamus, hypothalamus, amygdala, hippocampus, and basal ganglia), plays a crucial role in neuropsychological development. It coordinates emotional and cognitive data, directly affecting the quality of learning. Positive emotions enhance cognitive processes, making it vital to foster an encouraging learning environment. The limbic system's development from primitive emotions in early childhood to complex social emotions and empathy underscores its significance in forming social connections. Brain Structure and Function

The brain's development follows a strict genetic program, with ongoing postnatal (after birth) growth involving both the proliferation of neurons and the formation of connections among them. The neocortex, responsible for higher-order functions, continuously builds neural networks connected to the brain stem and limbic system, unique to each individual.

Conclusion

Understanding the neuropsychological development of children provides insight into their learning capabilities and behavioral patterns. This knowledge can guide the creation of personalized educational and developmental programs, ensuring each child's unique needs are met. Promoting positive emotional experiences and recognizing individual differences in neuropsychological development are key to enhancing educational outcomes and overall well-being.

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