



NEUROPEDAGOGICAL FEATURES OF CHILDREN'S INTELLECTUAL DEVELOPMENT

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Abstract: *This work analyzes the features of the process of intellectual development of children based on Neuropedagogy. It covers the theoretical and practical aspects of adapting the educational process to the child's brain activity, psychological development and individual capabilities. It also considers effective methods of mastering knowledge, developing Attention and Memory processes based on brain plasticity. The study substantiates the importance of creating a favorable emotional environment, using an individual approach and multisensory teaching methods to increase intellectual potential in children.*

Keywords: *Neuropedagogy, intellectual development, Neurology, Brain plasticity, Attention, Memory, individual approach, multisensory learning, emotional environment, educational effectiveness.*

INTRODUCTION

The first three years of a child's life serve as the foundation for their development.

Based on his changes, adaptations, actions, familiarization with the environment, in short, all the actions that a child acquires from zero to three years of age, we conclude that this period lasts longer than the rest of life in a positive sense.

During this period, the child's needs are so great that they cannot be ignored, lest they lead to serious consequences in the future (Maria Montessori).

Increasing attention to preschool education in Uzbekistan is one of the key elements of the country's education development strategy. This will ensure that

children receive quality education from an early age, preparing them for a successful future life and career.

Developing the intellectual abilities of preschool children is one of the pressing problems of our time. Preschool children with developed intelligence memorize material faster, are more confident in their abilities, adapt more easily to new environments, and are better prepared for school.

According to international pedagogical experience, a comprehensive and in-depth knowledge of children requires taking into account their neurological capabilities and aspects, along with their psychophysiological characteristics.

Neuropedagogy is a scientific field that studies the interaction between the brain and learning, combining knowledge from neurobiology, psychology, and pedagogy.

Scientist J. Bogen conducted research in the field of neuropedagogy and proposed figurative, emotional education aimed at activating the right hemispheres instead of traditional training based on activating the left hemispheres of students when providing knowledge.

He believed that this could facilitate the acquisition of knowledge by some students who face various difficulties in learning based on traditional teaching methods.

Diagnostics is the evaluation of a person to diagnose a specific condition or disease.

Neuropedagogical diagnostics is the process of using neuroscience and psychological assessment tools to assess a student's cognitive and learning abilities.

Neuropedagogical diagnostic process.

- Psychomotor development;
- Memory and attention;
- Speech;
- Thinking;

- Social and emotional sphere.

Neuropedagogical polymodal educational technologies.

Neuropedagogical polymodal educational technologies are an innovative approach to teaching children that uses educational technologies that take into account the individual characteristics of the child's brain development, as well as various channels of perception, such as visual, auditory, and tactile.

The concept of "polymodal" means "multimodality." In psychology, modality is the predominant use of one of the internal and external representations to receive and process information.

The process of preschool education, based on humanism and focused on the individual, is of particular importance in that it is organized taking into account not only the external state of the child, but also his inner world, inclinations, aspirations. In this process, the task of educators is to find means, methods, techniques and ways to realize the personal potential of the children, ensure their intellectual development, understand the problems of the child, and not force them to follow the rules they have introduced.

The problem of the intellectual development of a child has become one of the leading problems of pedagogy in the 21st century. This is determined by the relevance of humanistic ideas in society.

Teachers should not ignore every situation of learners. They should be able to search for and identify children in need of help. On the basis of pedagogical support, the educator provides simple, sincere, prompt, and proactive assistance aimed at improving the physical and mental health, intellectual development, interpersonal relationships, progress in understanding the environment, and solving specific problems.

Today, the formation of an intellectually developed personality is a pressing problem. In our opinion, to solve this problem, the educational process should be directed specifically at the learners themselves.

The widespread implementation of innovative processes at the preschool education stage creates the foundation for the comprehensive and intellectual development of children.

The educator should be seen as the creator of a model of the preschool educational process aimed at the intellectual development of children. It should be emphasized that for this, the educator must have a deep understanding of new pedagogical technologies and innovative methods used in the preschool educational process.

At the same time, educators are required to be well-versed in various methods of diagnosing a child's mental development, the psychological characteristics of children. They must be familiar with modern concepts - neuropedagogical characteristics and possess the methodology of personality education.

In conclusion, the advantage of the intellectual development system based on the neuropedagogical characteristics of children is aimed at their comprehensive development, and its main content is to develop the intellectual activities of learners, enrich their will and emotions as a reliable basis for the formation of initial concepts, skills, and imagination.

The main neuropedagogical principles of children's intellectual development

The integrity of this system is expressed in the interrelation of all parts. It involves the creation of new goals of preschool education, new didactic principles, content, typical features of the methodological system, concepts, skills, imagination and ensuring the effectiveness of their development. For this, it is advisable to establish the use of this system in a number of preschool educational organizations.

Neuropedagogy is the intersection of pedagogy and neurobiology, which studies the organization of the educational process taking into account how the child's brain works and develops. This approach is aimed at maximizing the

intellectual development of children, taking into account their individual cognitive characteristics.

The main neuropedagogical principles of children's intellectual development:

1. The plasticity of the brain. Children's brains are extremely flexible and quickly respond to different teaching methods. This means that they need an individual approach to mastering new knowledge.

2. The connection between sensory-motor activity and intellectual development. For young children, learning through movement and emotions is important. For example, children develop important cognitive skills through toys that they manipulate with their hands.

3. The influence of the emotional environment. Neuropedagogical studies show that the emotional environment is very important in the learning process of children. Stress and fear can reduce the brain's ability to learn, so it is necessary to create a safe and comfortable environment for children.

4. Ensuring the harmonious functioning of the two hemispheres. Intellectual development is associated not only with logical thinking, but also with creative thinking. Games, drawing, and music lessons help the child's right and left brain hemispheres work harmoniously.

Ways to support intellectual development in children

1. Use of early development programs. Special programs (Montessori, Vygotsky methods) can be used to increase cognitive activity in early childhood.

Examples of the Montessori method:

“Sensory boxes” (Working with sensory materials)

Goal: Development of sensory organs

Process:

- The child is given objects of different textures (sand, rice, stones, fabric).
- The child touches them, compares, and differentiates them.

Result: Fine motor skills and sensory thinking develop.

Examples of Vygotsky's method:

A task based on the "zone of proximal development".

Objective: To give a task that the child cannot do independently, but can do with help.

Example:

- The child can count to 10.
- With the help of the teacher, he learns to count to 15.

This is working in the zone of proximal development.

2. Logic games and problem-based learning. Puzzles, chess, mathematical puzzles and logic games play an important role in the development of a child's thinking.

3. Multi-channel teaching methodology. Children have different learning styles: visual (through sight), auditory (through hearing), kinesthetic (through movement). Neuropedagogy recommends ensuring that each child learns in a way that suits him.

4. Physical activity and cognitive development. Sports and physical activities are very useful for children's brains. For example, running, swimming or dancing improve cognitive processes. Ota-onalar va o'qituvchilar uchun tavsiyalar:

Play interactive games with children, support their curiosity.

Encourage age-appropriate intellectual activity (reading, scientific experiments).

Provide emotional support and reduce stress.

Develop an individual approach that is appropriate to the child's abilities.

The intellectual development of children is effectively carried out through a neuropedagogical approach. This method is based on the use of individual educational methods, taking into account how the child's brain works. The important

thing is to support the child's natural curiosity and correctly direct his development paths.

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