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THE IMPORTANCE OF THE NEUROPEDAGOGICAL APPROACH FOR PRESCHOOL CHILDREN

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Annotation:
This article examines the importance of neuropedagogy in preschool education, highlighting how neuroscience, psychology, and pedagogy converge to support the holistic development of young children. The neuropedagogical approach strengthens cognitive, emotional, linguistic, and social growth by aligning educational practices with the biological mechanisms of learning. The article presents theoretical insights, analytical reflections, methodological directions, and research-based conclusions relevant for modern early childhood education.

Keywords: Neuropedagogy; Preschool education; Neuroplasticity; Early childhood development; Sensorimotor learning; Executive functions; Emotional regulation.

Preschool childhood is a sacred moment when the brain is still soft like morning light, absorbing impressions, sounds, movements, and emotions with breathtaking speed. Every experience becomes a delicate thread in the neural fabric, shaping perception and forming lifelong learning patterns. Neuropedagogy, emerging from the union of neuroscience and pedagogy, offers a scientific yet human-centered way to understand how children learn, remember, imagine, and feel. It reminds educators that teaching is not merely giving information but creating the emotional and cognitive environment in which the child's brain naturally flourishes.

Modern research confirms that early childhood is the peak of neuroplasticity—synaptic connections grow rapidly, and every interaction becomes a builder of future intelligence. Sensorimotor activity is central at this stage; children learn by touching, moving, jumping, stacking, creating, and exploring. Movement activates neural networks, while multisensory experiences strengthen attention, memory, and speech

development. Neuropedagogy emphasizes that nothing in early learning happens in isolation: emotion, perception, and cognition are deeply intertwined. When the emotional climate is safe and nurturing, the child's brain becomes more open to curiosity, discovery, and imagination. Conversely, stress disrupts attention and memory, limiting learning outcomes; thus, the educator plays the role of emotional co-regulator.

Analytical studies in developmental psychology and cognitive neuroscience (Vygotsky, Diamond, Immordino-Yang, Luria) highlight the rapid development of executive functions between ages 3–7. Skills such as inhibition, working memory, cognitive flexibility, and emotional self-control form the backbone of future academic success. Neuropedagogical strategies—structured play, storytelling, role games, visual supports, rhythmic activities, breathing exercises, and social–emotional practices—strengthen these foundational capacities. Furthermore, language-rich environments, dialogic reading, phonological awareness tasks, and sensory integration techniques help children internalize concepts more deeply.

The methodology underpinning this approach integrates theoretical synthesis and practical pedagogy. Multisensory teaching, neurodevelopmental exercises, observation-based assessment, naturalistic interaction, and teacher–child co-regulation form its core. Applying neuropedagogy in preschool settings means designing activities that match the child's developmental rhythms and neural readiness. Educators observe how children respond emotionally and cognitively, adjusting the pace and structure of activities to support attention, engagement, and neural growth. This process is less about rigid instruction and more about creating experiences that resonate with the child's inner world.

In conclusion, neuropedagogy provides a powerful framework for shaping early childhood education. It ensures that learning aligns with the architecture of the developing brain, turning the classroom into a living ecosystem where movement becomes memory, play becomes knowledge, and emotion becomes understanding. Preschool children taught with neuropedagogical sensitivity show stronger curiosity, resilience, emotional balance, and problem-solving skills. They do not merely learn facts—they develop the capacity to think, feel, adapt, and grow. Thus,

neuropedagogy stands not as a trend but as a necessity for shaping the foundations of lifelong learning in a rapidly changing world.

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