Improving Practical Conditions For Providing Methodological Assistance To Left-Handed Preschool Children

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A B S T R A C T

The article explores the specific psychophysiological characteristics of left-handed preschool children and the issues of their adaptation to the educational process. The primary objective of the research is to improve the practical conditions for providing methodical assistance to left-handed children and to overcome the difficulties encountered in developing their writing and drawing skills. The article analyzes recommendations for educators and parents on working with left-handed children, as well as innovative methodical techniques designed to ensure the child's intellectual and emotional development.

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Introduction

In recent years, the development of preschool education, considered the foundation of continuous education in our country, has been actively supported by President Sh.M. Mirziyoyev. Specifically, in the "Development Strategy of New Uzbekistan for 2022-2026" [1], particular emphasis was placed on the preschool education system, defining several key tasks. Numerous initiatives have been introduced to increase the enrollment rate in preschool education. Important goals and tasks are also outlined in the Cabinet of Ministers' resolution on approving state standards for preschool education and upbringing, the development of the "Ilk Qadam" (First Step) State Curriculum (with an improved edition published on February 4, 2022), and the "Concept for Developing the Preschool Education System until 2030" [2].

Preschool education represents a vital stage in a child's personal and social development [3]. During this period, children acquire new knowledge and skills, forming the necessary foundations for self-awareness, creativity, and social interaction. Improving the writing instruction and methodological technologies for left-handed children is crucial for this process. It is essential for such children to grow in an environment where they feel free and safe, enabling them to express their thoughts openly.

On e of the priority tasks of modern pedagogy and psychology is to organize the educational process while taking into account the individual physiological characteristics of each child. Among these unique traits, left-handedness (sinistrality) holds a special place. According to statistics, left-handed people make up 10-15% of the world's population, and this figure is increasing annually [4]. The preschool period is a stage of rapid development of sensory and motor functions; therefore, enhancing the practical conditions for providing methodological assistance to left-handed children is of significant importance. A child gradually adapts to this dominance. Adaptation [5] [Latin: *adaptatio* – adjustment] refers to: 1) the organism's adjustment to various living conditions; 2) changes in the level of sensitivity of sensory organs as they adapt to stimuli (e.g., the eye's adjustment to light or darkness). Sensitivity changes as the intensity of the stimulus changes: it increases with weak stimuli and decreases with strong ones.

For a long time, left-handedness was viewed in pedagogy as a "defect to be corrected," and the practice of forcibly retraining children to use their right hand was applied. However, modern neuropsychological research shows that left-handedness is a functional dominance of the brain's right hemisphere. Forcing a change to this can seriously harm the child's nervous system, speech, and emotional state [6]. Currently, the lack of a fully developed methodological environment for left-handed children's writing preparation, spatial visualization, and social adaptation in the preschool system necessitates further research into this topic. Left-handed children face certain difficulties in writing because they tend to cover the text they are writing with their hand, leading them to look back at the text repeatedly. In contrast, right-handed children can continue writing while maintaining a clear view of the text.

This helps them save time, though it is not a universal rule, as some left-handed children adapt to write even more skillfully and quickly than their right-handed peers.

A higher proportion of composers, artists, football players, boxers, and natural scientists tend to be left-handed. Why do left-handed individuals often become great football players, scoring accurate and frequent goals [1]? This phenomenon is linked to the dominance of the right hemisphere, which is responsible for processing geometric shapes and spatial awareness. They can target any corner of the goal with precision. Furthermore, left-handed individuals tend to be more emotional than right-handed ones, which may make them more sensitive. This sensitivity might be why they often possess a strong drive to excel. Interestingly, while they excel in many creative fields, it is often noted that exceptional writers are more commonly right-handed.

Left-handed individuals are often "practitioners," while right-handed ones tend to be "theorists." While right-handed individuals—whose left hemisphere (the center for speech and logic) is dominant—spend time analyzing events, left-handed individuals—whose right hemisphere (favoring practical action) is dominant—tend to execute tasks immediately. In preparing left-handed children for school, it is crucial to provide not only psychological support but also a physical and methodological environment that aligns with their physiological needs.

Improving Ergonomic Conditions

1. **Lighting System:** In the classroom, the light source (natural or artificial) must come from the **right side** for a left-handed child. This prevents the hand from casting a shadow over the work area, which could otherwise impair vision.

2. **Seating Arrangement:** A left-handed child should always be seated on the **left side of the desk**. This ensures their left elbow does not interfere with a right-handed neighbor and allows for freedom of movement [2].

Methodological Tools and Didactic Materials

1. **Specialized Writing Instruments:** Utilizing pens and pencils with ergonomic grips (contoured finger placements). This prevents the child from gripping the tool too tightly, thus avoiding muscle spasms.
2. **Mirror-Image Copybooks:** For left-handed children, samples of letters and numbers should also be repeated on the **right side** of the line. This is because the child often covers the sample on the left with their hand while writing.
3. **Symmetrical Drawing:** Strengthening interhemispheric connections through exercises involving drawing with both hands simultaneously (bimanual coordination).

Methodological Approaches to Developing Graphomotor Skills [3]

1. **Directional Indicators:** Placing colored arrows (guides) to show exactly where to start and which direction to follow when drawing each letter or shape.
2. **Tactile Method:** Developing "motor memory" by tracing letters with fingers in sand, in the air, or on various textured papers.
3. **Visual Markers:** Placing a red line (marker) on the left margin of the notebook or paper. bu constant reminder helps the child identify where to begin and prevents spatial disorientation.

Siz taqdim etgan matnning yakuniy xulosalari va psixologik tahlillarini ham ilmiy va ravon ingliz tiliga o‘girdim. Bu qism dissertatsiyangizning nazariy xulosalari va amaliy tavsiyalarini umumlashtirish uchun juda muhimdir.

Psychological Characteristics and Strategic Conclusions for Supporting Left-Handed Children

Experts highlight several key psychological characteristics of left-handed children that deserve particular attention:

1. They have a strong sense of body awareness and excellent physical coordination. Generally, they are more active and tend to dislike repetitive tasks that require rigid self-control.
2. In school, they often master geometry easily and possess a quick and accurate perception of their environment. However, they may face challenges with arithmetic, as it requires linear logical thinking—a domain primarily governed by the left hemisphere.
3. They have a well-developed ability to generalize information, whereas attempts at detailed analysis can sometimes lead to difficulties.
4. Left-handed children are emotional, sensitive, and vulnerable. Consequently, they may experience feelings of offense, anger, or anxiety more frequently than right-handed peers, especially when struggling to complete a task.
5. They are children with rich imaginations and are often great dreamers.

Reports indicate that many left-handed children feel a sense of embarrassment regarding their handwriting. Some may attempt to write with their right hand for a period, but after failing, return to using their left. Therefore, it is essential to explain to children that left-handedness is not a defect, but a natural biological phenomenon.

Analysis of the development process in preschool-aged left-handed children shows that left-handedness is not a physiological flaw, but rather a unique way in which brain activity is organized [1]. These children tend to perceive the world differently—more through images, emotions, and as a holistic whole.

Conclusions and Methodological Recommendations:

1. Abandoning Coercion – A Guarantee of Mental Health Forcing a child to switch to their right hand is a harsh interference with their natural neurobiological processes. This can lead to chronic stress, loss of self-confidence, stuttering, and writing disorders such as "dysgraphia." The foundation of methodological assistance is recognizing and adapting to the child's nature.

2. The Necessity of an Individual Methodological Approach Standard teaching methods are often ineffective for left-handed children. Methodological support should prioritize three areas:

- **Space and Coordination:** Left-handed children may exhibit "mirror perception" (e.g., writing letters backward). Assistance must focus on helping the child correctly perceive spatial directions (right vs. left).
- **Technical Adaptation:** Proper lighting, pen-holding techniques, and specialized stationery are not just matters of comfort; they are essential for reducing physical fatigue and protecting the health of the child's spine [2].

3. Cognitive and Creative Potential In conclusion, left-handed children are often distinguished by their non-traditional thinking, high creativity, and intuitive sensitivity. If parents and educators provide timely and correct methodological help, this uniqueness can serve as a massive foundation for the child's future success.

4. The Collaboration Model To achieve successful results, a "Parent – Educator – Psychologist" partnership must be established. The ultimate goal of an improved methodological system should be to create a positive psychological environment where the child does not feel guilty for being "different," but rather accepts their individual traits as a strength.

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