



СПЕЦИАЛНА ПЕДАГОГИКА

SPECIAL EDUCATION

INTERPRETATION OF PERSONALITY THEORY IN THE CONTEXT  
OF WRITING DISORDERS AND MIRROR WRITING

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**Abstract:** *This study aims to contribute to the understanding of mirror writing by employing modern neurophysiological techniques, specifically Optics Challenging Dynamics (P 100), and by providing pedagogical approaches for problem-solving. The focus of this research is to investigate the disorders of written expression in typically developing children who are introduced to the process of learning to write. Additionally, it examines the developmental differences in visual-kinetic skills among preschool and first-grade elementary school children. The research hypotheses revolve around the reduction in mirror writing occurrence during handwriting practice, the progressive development of visuospatial orientation and visuomotor skills, the impact of hand preference on handwriting tendencies, and the potential association between dyslexic handwriting and prolonged P100 latency in neurophysiological examinations. The study involves a sample of 100 participants, including kindergarten children and first-grade elementary school students, and utilizes both standardized tests and neurophysiological assessments, specifically visual evoked potentials (VEPs), to gather data. By addressing these research objectives, this study aims to contribute to the advancement of visual-motor abilities, particularly in visuo-spatial discrimination, controlled visual attention, and the healthy functioning of the visual pathway, while highlighting the differences in neuronal maturation and interhemispheric communication that underlie mirror writing.*

**Keywords:** *Disorders of written expression, Visual-kinetic skills, Handwriting practice, Visuospatial orientation, Visuomotor skills, Neurophysiological assessments*

### Introduction

Personality theory, when applied to writing disorders and mirror writing, posits that an individual's personality, particularly in the context of writing, evolves with specific characteristics, abilities, and skills unique to each person. According to this theory, the early stages of the personality structure are influenced by the learning processes related to writing, after which the personality functions with relative independence from environmental influences.

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### ***Interpretation of Learning Theories in the Context of Writing Disorders and Mirror Writing***

The exploration of learning theories offers valuable insights into the understanding of writing disorders and mirror writing, emphasizing the multidimensional nature of these challenges. Let's examine how different theoretical perspectives shed light on the intricate relationship between cognitive processes, socio-environmental factors, and the manifestation of difficulties in written expression.

#### ***Behavioral Direction***

In the realm of writing disorders, the behavioral direction posits that challenges may arise from erroneous learning processes, emphasizing the quality and utilization of reinforcement elements. Environmental factors, including deficiencies in educational support or feedback, could contribute to difficulties in developing proficient writing skills. However, it's essential to recognize that writing is not a passive reception of stimuli; it involves complex cognitive processes. A comprehensive understanding of writing difficulties requires acknowledgment of individual variability and the cognitive, emotional, and social dimensions inherent in the writing process.

#### ***Social-Cognitive Direction***

The social-cognitive direction, building on the work of Bandura, Mahoney, and Mischel, emphasizes the mutual interaction between behavior, intrapersonal elements, and environmental events. In the context of writing disorders, this theory underscores the importance of self-regulation, self-observation, and self-reinforcement. Students facing writing challenges, including mirror writing tendencies, may struggle with managing events and stimuli in the environment. Intervention programs, focusing on self-guidance, become crucial in addressing these difficulties.

Mirror writing, as a unique manifestation, could be explored through the lens of cognitive processes and neurological factors. Investigating how mirror writing aligns with cognitive dimensions may offer insights into the interplay between cognitive functions and written expression in individuals grappling with writing difficulties.

#### ***The Model of Information Processing***

The information processing model attributes learning disabilities to how individuals approach and process new information. In the context of writing disorders, this perspective may explain difficulties in language processing, verbal expression, and the output of information in written form. Attentional mechanisms, memory consolidation, and executive functions play a significant role in information processing, impacting writing skills. Exploring these elements contributes to a more nuanced understanding of the intricacies involved in information processing and its relevance to writing challenges.

#### ***The Direction of Social Interaction***

The social interaction perspective suggests that learning deviations, including writing disorders, stem from the cultural and societal expectations placed on the individual. In the case of writing difficulties, the teacher-student interaction and cultural context become pivotal. Understanding how cultural expectations influence the learning experiences of individuals with diverse backgrounds and abilities enhances the depth of this perspective.

In conclusion, applying learning theories to the context of writing disorders and mirror writing underscores the importance of considering cognitive, socio-environmental, and cultural dimensions in understanding and addressing these challenges. A holistic approach that recognizes the complexity of writing processes and individual differences is essential for developing effective intervention strategies tailored to the unique needs of students facing difficulties in written expression.

## **Methodology**

The study involves a sample of 100 participants, including kindergarten children and first-grade elementary school students, and utilizes both standardized tests and neurophysiological assessments, specifically visual evoked potentials (VEPs), to gather data. The research hypotheses revolve around the reduction in mirror writing occurrence during handwriting practice, the progressive development of visuospatial orientation and visuomotor skills, the impact of hand preference on handwriting tendencies, and the potential association between dyslexic handwriting and prolonged P100 latency in neurophysiological examinations.

## Results and Discussion

In the realm of writing disorders, this theory suggests that challenges may stem exclusively from the structure and functioning of the student's personality. However, the theory acknowledges potential limitations, suggesting that a consistently degraded personality structure must be evident across various circumstances for its validity. Any observed variations in a student's writing performance under different conditions challenge the stability and predictability of a degraded personality structure.

For this theory to hold, it proposes that a student's personality characteristics determine their readiness for writing, activating it to the socially required extent and manner to achieve corresponding writing performance. Effective writing requires the student to undergo a transformative process into an active writer, ultimately developing fully the personality traits conducive to the required writing readiness.

## Conclusion

In conclusion, the application of biogenetic-biochemical investigations and personality theory to the study of writing disorders and mirror writing underscores the intricate relationship between biological factors, personality characteristics, and the development of writing skills. The dynamic interplay between genetic influences, environmental factors, and personality traits contributes to our understanding of the multifaceted nature of challenges in written expression, including the intriguing phenomenon of mirror writing.

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