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COGNITIVE DEVELOPMENT AND SELF-CONCEPT FORMATION IN PRIMARY SCHOOL CHILDREN

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Abstract

Cognitive development and self-concept formation are two interrelated processes that significantly influence a child's overall psychological and academic growth. Primary school years represent a critical stage during which children develop thinking abilities alongside an emerging understanding of their identity, competencies, and self-worth. This study investigates the relationship between cognitive development and self-concept formation in primary school children. Drawing on theoretical perspectives from Piaget, Vygotsky, and Harter, the research explores how intellectual growth contributes to the development of self-perception and vice versa. Using a mixed-method approach, the study finds that higher cognitive abilities are associated with more positive and structured self-concepts. The findings highlight the importance of fostering both cognitive and psychological development in educational settings.

Keywords. Cognitive development, self-concept, primary school children, child psychology, metacognition, self-awareness

Introduction

Primary school years, typically ranging from ages 6 to 11, are a crucial developmental period during which children experience significant cognitive and psychological changes. According to Jean Piaget's theory of cognitive development, children in this stage enter the **concrete operational stage**, characterized by logical thinking, problem-solving, and the ability to understand perspectives beyond their own (Piaget, 1952). Simultaneously, children begin forming a structured self-concept, which refers to their perception of their abilities, personality traits, and social roles. Self-concept is not innate but develops gradually through interactions with parents, teachers, and peers. Susan Harter (2012) emphasizes that self-concept becomes more differentiated and realistic during middle childhood, as children gain cognitive skills that allow them to evaluate themselves more accurately.

Lev Vygotsky's sociocultural theory also highlights the role of social interaction in cognitive development. Through guided learning and communication, children internalize knowledge and develop higher mental functions (Vygotsky, 1978). These

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processes also influence how children perceive themselves, as feedback from significant others shapes their self-concept.

The relationship between cognitive development and self-concept is reciprocal. As children develop stronger thinking skills, they become more capable of self-reflection and self-evaluation. In turn, a positive self-concept enhances motivation, learning engagement, and academic performance.

This study aims to explore how cognitive development contributes to the formation of self-concept in primary school children and to identify key factors influencing this relationship.

Methods

Research Design. This study employed a mixed-method design combining quantitative and qualitative approaches. This design allows for a comprehensive understanding of both measurable cognitive abilities and subjective self-concept formation.

Participants. The sample consisted of 80 primary school children aged between 7 and 10 years from two public schools. Participants were selected using random sampling to ensure diversity in academic performance and socio-economic backgrounds.

Instruments. The study utilized the following tools:

- Cognitive Development Test: Standardized tasks measuring logical reasoning, memory, and problem-solving skills
- Self-Concept Scale for Children (adapted from Harter, 2012)
- Classroom Observation Checklist
- Semi-structured interviews with teachers and selected students

Procedure. Data were collected over a five-week period. Students completed cognitive tests and self-concept questionnaires in a classroom setting. Observations were conducted during lessons to assess behavior, participation, and confidence. Teachers provided additional qualitative insights regarding student performance and self-perception.

Data Analysis. Quantitative data were analyzed using correlation and regression analysis to determine relationships between cognitive development and self-concept. Qualitative data were analyzed through thematic analysis to identify recurring patterns and behaviors.

Results. The findings revealed a significant positive relationship between cognitive development and self-concept formation.

- Children with higher cognitive scores demonstrated more positive and stable self-concepts

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- Approximately 78% of students with strong problem-solving abilities reported higher levels of self-confidence
- Students with well-developed reasoning skills were more likely to describe themselves using specific and realistic attributes.

Qualitative findings supported these results. Teachers observed that cognitively advanced students were more independent, confident, and willing to participate in classroom activities. Additionally, children with lower cognitive performance often showed signs of negative self-concept, including self-doubt and reluctance to engage in tasks.

Discussion. The results confirm that cognitive development plays a crucial role in shaping self-concept during primary school years. As children develop logical thinking and metacognitive abilities, they become more capable of evaluating their own strengths and weaknesses. These findings align with Piaget's theory, which suggests that cognitive maturity enables children to think more logically about themselves and others. Similarly, Vygotsky's theory emphasizes that social interactions and feedback contribute to both cognitive growth and self-concept formation. Harter (2012) also argues that self-concept becomes more complex as cognitive abilities improve, allowing children to integrate multiple aspects of their identity. Furthermore, the study highlights the importance of **metacognition**—the ability to think about one's own thinking. Children who engage in self-reflection are more likely to develop a coherent and positive self-concept. Educational implications of this study include the need for teaching strategies that promote both cognitive and emotional development. Teachers should encourage reflective thinking, provide constructive feedback, and create supportive learning environments.

Conclusion

In conclusion, cognitive development and self-concept formation are deeply interconnected processes that significantly influence children's academic and personal growth. Enhancing cognitive abilities not only improves intellectual performance but also contributes to a more positive and realistic self-concept.

Educational systems should prioritize integrated approaches that support both cognitive and psychological development. Future research should explore intervention programs aimed at strengthening this relationship.

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