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PSYCHOLOGICAL FOUNDATIONS OF PSYCHODIAGNOSTIC ASSESSMENT OF THINKING PROCESSES IN 7th–9th GRADE STUDENTS

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Abstract: The development of thinking processes during adolescence represents one of the most significant aspects of cognitive growth and educational achievement. This article examines the psychological foundations of psychodiagnostic assessment of thinking processes in students of grades 7–9. Particular attention is given to the age-related characteristics of cognitive development, including the formation of abstract, logical, analytical, and critical thinking skills.

Keywords: thinking processes, psychodiagnostics, adolescence, cognitive development, analytical thinking, critical thinking, abstract thinking, intellectual abilities, psychological assessment, educational psychology.

Introduction

In contemporary educational systems, the development of students' intellectual potential and higher-order thinking skills has become one of the primary objectives of pedagogical and psychological practice. Rapid technological advancement, increasing information flows, and the growing complexity of social interactions require learners to possess not only subject-specific knowledge but also the ability to analyze information critically, solve problems creatively, and make independent decisions. Consequently, understanding the nature and development of thinking processes during adolescence has become a significant area of psychological research.

Adolescence is characterized by substantial cognitive transformations that influence the individual's perception, reasoning, and decision-making abilities. Students in grades 7–9 typically experience significant improvements in abstract reasoning, logical operations, metacognitive awareness, and reflective thinking. These developmental changes enable adolescents to engage in more sophisticated cognitive activities, including hypothesis generation, systematic problem-solving, and critical evaluation of information. Therefore, the psychodiagnostic assessment of thinking processes during this period plays a crucial role in understanding students' cognitive strengths, weaknesses, and developmental needs.

The effective assessment of thinking processes provides valuable information for educators, psychologists, and researchers seeking to optimize educational outcomes and promote students' cognitive growth. Psychodiagnostic tools facilitate the identification of individual differences in intellectual functioning and support the development of targeted educational interventions aimed at enhancing thinking skills.

Theoretical Foundations of Thinking Processes in Adolescence

Thinking is generally defined as a higher-order cognitive process through which individuals analyze, synthesize, compare, generalize, and interpret information to solve problems and make decisions. Within psychological science, thinking has been investigated from various theoretical perspectives, each contributing unique insights into the mechanisms underlying cognitive development.

The cultural-historical theory developed by Lev Vygotsky emphasizes the social origins of higher mental functions and highlights the role of language, social interaction, and cultural tools in cognitive development. According to this perspective, thinking develops through participation in

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socially mediated activities, gradually transforming external forms of reasoning into internal cognitive processes.

The cognitive developmental theory proposed by Jean Piaget provides another influential framework for understanding adolescent thinking. Piaget argued that individuals entering adolescence progress toward the stage of formal operational thinking, characterized by the ability to reason abstractly, formulate hypotheses, and engage in systematic problem-solving. During this stage, students become capable of considering multiple perspectives and evaluating complex relationships among variables.

Contemporary cognitive theories further emphasize the role of information processing mechanisms, metacognition, and executive functions in the development of thinking processes. These approaches suggest that cognitive growth results from improvements in attention, working memory, cognitive flexibility, and self-regulation, all of which contribute to more efficient and sophisticated thinking.

Psychological Characteristics of Thinking in 7th–9th Grade Students

Students in grades 7–9 undergo significant cognitive changes that distinguish their thinking processes from those of younger children. One of the most notable characteristics is the emergence of abstract thinking, which enables adolescents to understand concepts that are not directly observable or tied to concrete experiences. This cognitive advancement allows students to engage with theoretical ideas, scientific principles, and hypothetical situations.

Another important characteristic is the development of logical reasoning. Adolescents increasingly rely on deductive and inductive reasoning strategies when solving problems and evaluating evidence. Their capacity for identifying causal relationships and recognizing inconsistencies in arguments also improves significantly during this period.

Critical thinking becomes more pronounced as adolescents learn to question assumptions, evaluate sources of information, and consider alternative viewpoints. In an era characterized by digital media and information abundance, these skills are essential for navigating complex informational environments and making informed decisions.

Additionally, metacognitive abilities become increasingly sophisticated. Students develop greater awareness of their own thinking processes, allowing them to monitor, regulate, and evaluate their cognitive performance. This self-reflective capacity contributes to improved learning outcomes and supports the development of independent learning skills.

Psychodiagnostic Assessment of Thinking Processes

Psychodiagnostic assessment serves as an essential method for evaluating the structure, level, and characteristics of thinking processes among adolescents. The primary objective of psychodiagnostic evaluation is to obtain reliable information regarding an individual's cognitive functioning and developmental status.

A variety of psychodiagnostic instruments may be employed to assess thinking processes in students. Intelligence tests, reasoning tasks, problem-solving assessments, and measures of creative and critical thinking provide valuable insights into different aspects of cognitive functioning. These instruments help psychologists identify both strengths and areas requiring developmental support.

Assessment procedures should be conducted using scientifically validated instruments that demonstrate adequate reliability and validity. Furthermore, the interpretation of assessment results must consider age-related developmental characteristics, educational experiences, and sociocultural influences that may affect cognitive performance.

A comprehensive psychodiagnostic approach typically integrates quantitative and qualitative methods. While standardized tests provide objective measures of cognitive abilities, observational

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techniques, interviews, and analysis of academic performance contribute additional contextual information regarding students' thinking processes.

Educational Significance of Psychodiagnostic Assessment

The psychodiagnostic assessment of thinking processes has substantial implications for educational practice. Accurate assessment enables educators to identify individual learning needs and adapt instructional strategies accordingly. Students exhibiting advanced reasoning abilities may benefit from enriched educational opportunities, whereas those experiencing cognitive difficulties may require additional support and intervention.

Psychodiagnostic findings also contribute to the development of individualized educational plans that promote cognitive growth and academic achievement. By understanding students' thinking patterns and cognitive profiles, educators can design learning experiences that foster analytical reasoning, creativity, and problem-solving skills.

Moreover, psychodiagnostic assessment supports early identification of cognitive challenges that may interfere with academic success. Timely intervention can prevent learning difficulties from becoming entrenched and facilitate more positive developmental outcomes.

Conclusion

The psychodiagnostic assessment of thinking processes in 7th–9th grade students constitutes an important area of educational and developmental psychology. Adolescence is characterized by significant cognitive transformations, including the emergence of abstract reasoning, enhanced logical thinking, critical analysis, and metacognitive awareness. Understanding these developmental changes requires the application of scientifically grounded psychodiagnostic methods capable of providing comprehensive information about students' cognitive functioning.

Effective psychodiagnostic assessment contributes to the identification of individual cognitive characteristics, supports educational decision-making, and facilitates the implementation of targeted interventions aimed at enhancing thinking skills. Consequently, the integration of psychodiagnostic practices into educational settings represents a valuable strategy for promoting intellectual development and improving educational outcomes among adolescent learners.

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