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THE CONCEPT, ESSENCE, AND STAGES OF DEVELOPMENT OF CREATIVE THINKING

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ABSTRACT

The article provides a comprehensive analysis of the concept, essence, and developmental stages of creative thinking. In the modern educational paradigm, creative thinking is no longer viewed as an innate talent but as a systematic cognitive skill that can be cultivated. This study explores the psychological and pedagogical foundations of creativity, emphasizing its role in problem-solving and innovation. By analyzing various theoretical models, the author identifies the key phases of creative development, from initial perception to the practical realization of ideas. The findings highlight the importance of creating a conducive environment for fostering creative cognitive processes in students, ensuring their adaptability in a rapidly changing global landscape.

Keywords

creative thinking, cognitive development, essence of creativity, stages of development, innovative education, problem-solving, intellectual flexibility.

INTRODUCTION

In the 21st century, the rapid acceleration of technological progress and the increasing complexity of global challenges have necessitated a shift in educational priorities. Today, the ability to store information is less valuable than the ability to transform it. Creative thinking has emerged as one of the most critical "soft skills," serving as a bridge between theoretical knowledge and practical innovation. Unlike traditional linear thinking, creativity allows individuals to navigate uncertainty, find non-standard solutions, and perceive opportunities where others see obstacles.

The essence of creative thinking lies in the synthesis of divergent and convergent processes. It is characterized by fluency, flexibility, originality, and the capacity for elaboration. Philosophically and psychologically, creativity is seen as a transformative force that enables a person to reorganize existing elements into entirely new configurations. As noted in contemporary research, the development of such thinking is not a spontaneous event but a structured process influenced by both internal cognitive mechanisms and external environmental factors [1, 58].

Understanding the stages of creative development is essential for designing effective pedagogical interventions. Historically, scholars have identified distinct phases in the creative act, typically starting from the preparation stage, followed by incubation—a period of unconscious processing—and culminating in illumination and verification. Each of these stages requires specific cognitive triggers and emotional states. In the context of modern society, which is characterized by "liquid modernity" and constant change, the ability to think creatively becomes a primary tool for survival and social integration [2, 112].

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This article aims to dissect the structural components of creative thinking and propose a framework for its stage-by-stage development. By examining the transition from childhood curiosity to mature inventive capacity, we can better understand how to integrate creative methodologies into the core of the educational process.

MAIN PART

The phenomenon of creative thinking stands as a cornerstone of human cognitive evolution, representing the highest form of mental activity that allows individuals to transcend conventional boundaries and generate novel solutions to multifaceted problems. To understand the essence of creativity, one must first distinguish it from general intelligence. While intelligence often involves convergent thinking—the ability to find a single, correct solution to a defined problem—creative thinking is fundamentally rooted in divergent thinking. This cognitive process expands the search for possibilities in multiple directions, fostering a mindset that values ambiguity, exploration, and the synthesis of seemingly unrelated concepts. In the context of modern pedagogy, the transition from viewing creativity as a mystical gift to a structured, developable competency is perhaps the most significant shift in educational philosophy.

The essence of creative thinking is multidimensional, encompassing cognitive, emotional, and social components. At its core, creativity is driven by the ability to perceive the world through a lens of possibility rather than certainty. This involves a high degree of intellectual flexibility, allowing an individual to shift perspectives and adapt to new information without the constraints of cognitive rigidity. Psychological research suggests that the creative mind operates through a sophisticated interplay between the associative network of the brain and executive control functions. This means that while creative ideas often emerge from free association and daydreaming, their refinement and application require rigorous analytical thinking. Therefore, the essence of creativity is not merely thinking outside the box but rather the disciplined integration of imagination and logic.

Understanding the developmental stages of creative thinking is crucial for establishing an effective educational framework. According to the classical models of the creative process, creativity unfolds through several distinct phases: preparation, incubation, illumination, and verification. During the preparation stage, the individual gathers information, identifies a specific challenge, and immerses themselves in the relevant domain knowledge. This stage is followed by incubation, a mysterious yet vital period where the conscious mind steps back, and the subconscious continues to process the data. It is often during this dormant phase that the brain forms new neural connections and associative links. Illumination, frequently described as the "Eureka" moment, is the sudden emergence of a breakthrough idea into conscious awareness. Finally, verification involves the critical evaluation and testing of the idea to ensure its feasibility and social value.

The development of creative thinking in childhood follows a sensitive trajectory that requires specific environmental nourishment. In the early years, children possess a natural inclination toward divergent thinking, unburdened by the societal norms and right or wrong dichotomies that often characterize formal schooling. However, as children progress through traditional educational systems, there is often a noted creativity slump where the pressure for conformity and standardized performance suppresses original thought. To counteract this, modern pedagogical strategies emphasize the importance of maintaining an open cognitive space. By encouraging students to ask "Why?" and "What if?", educators can sustain the natural curiosity of childhood and transform it into a mature, systematic inventive capacity.

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Furthermore, the role of social and cultural factors in fostering creativity cannot be overstated. Creativity does not occur in a vacuum; it is a product of the interaction between an individual and their socio-cultural environment. Historical analysis shows that periods of great human innovation have always coincided with cultures that value openness, cross-pollination of ideas, and a tolerance for failure. In a contemporary setting, this translates to the need for collaborative creativity. The modern genius is rarely a solitary figure but rather part of a network where ideas are shared, critiqued, and improved upon collectively. As society moves deeper into the era of constant change, where traditional structures are shifting, the ability to collaborate creatively becomes a primary tool for social resilience and economic survival.

The psychological underpinnings of creativity are also deeply linked to emotional intelligence. The courage to be original requires a high degree of creative confidence—the belief in one's ability to initiate change and navigate the risk of being misunderstood. Students who are emotionally supported are more likely to engage in the playful experimentation necessary for creative breakthroughs. This emotional dimension highlights the necessity for teachers to act as facilitators rather than mere lecturers. By creating a classroom atmosphere where mistakes are viewed as data points rather than failures, educators can significantly lower the affective filter that often blocks creative expression. This shift in classroom culture is essential for the illumination phase to occur more frequently and effectively.

From a neurological perspective, creative development is mirrored by the plasticity of the brain. Engaging in creative tasks strengthens the connections between the default mode network, associated with spontaneous thought, and the executive attention network, associated with focused goal pursuit. This neural synergy is what allows a creative thinker to both dream and do. The maturation of these networks occurs throughout adolescence, making this a critical window for exposing students to complex, ill-defined problems that require multi-step creative solutions. The integration of arts, sciences, and humanities is a practical manifestation of this holistic cognitive development, as it forces the brain to reconcile different modes of thinking.

In conclusion, the essence of creative thinking lies in its transformative power. It is the engine of human progress, enabling us to reinvent our tools, our societies, and ourselves. The transition through the stages of preparation, incubation, and illumination is not merely a psychological exercise but a developmental journey that requires both intellectual rigor and emotional resilience. As we navigate an increasingly automated world, the uniquely human capacity for creative synthesis remains our most valuable asset. Therefore, the primary goal of modern education must be the cultivation of this capacity, ensuring that every learner has the tools to not only adapt to the future but to actively create it. The systematic application of creative methodologies in the classroom ensures that students are equipped with the intellectual flexibility needed to thrive in a world defined by constant change.

CONCLUSION

The comprehensive analysis of creative thinking reveals that it is a multifaceted cognitive process essential for navigating the complexities of the modern world. It is not merely a spontaneous spark of inspiration but a structured developmental journey consisting of preparation, incubation, illumination, and verification. The study emphasizes that creativity is a skill that can be systematically cultivated through appropriate pedagogical interventions and a supportive environment that encourages divergent thinking and emotional resilience.

By understanding the essence and stages of creative development, educators can move beyond traditional rote memorization toward a more heuristic and project-based approach. Fostering creative confidence in students allows them to view challenges as opportunities for

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innovation rather than obstacles. Ultimately, the integration of creative methodologies into the educational core is vital for preparing a generation capable of not only adapting to the future but actively shaping it through original and effective solutions.
Recommendations: Curriculum Integration: Educational institutions should integrate creative thinking exercises across all subjects, moving beyond the arts to include sciences and humanities; Teacher Training: Educators should be trained as facilitators who encourage "safe-to-fail" environments where mistakes are treated as necessary steps in the learning process; Methodological Diversity: Tools such as Design Thinking, brainstorming, and mind-mapping should be utilized regularly to help students navigate the stages of incubation and illumination.

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