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Revisiting the Link between Learning and Creativity: Current Perspectives

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Abstract

Creativity and learning are closely interconnected processes that play a significant role in educational, social, physical, emotional, and cognitive development. This article examines how learning fosters creativity by exploring major theoretical perspectives and the various types of creativity. It aims to provide a deeper understanding of the relationship between learning and creativity and to revisit the ways in which educational experiences can nurture creative potential.

Keywords: Creativity, Learning, Innovation.

Introduction

The ability to come up with several answers or ideas, which requires originality, flexibility, elaboration, and fluency, is what defines creativity (Guilford, 1950). Higher education must be the basis for innovation, creativity, and knowledge growth to build a more imaginative, creative, prosperous, and forward-thinking nation, according to the New Education Policy (Ministry of Education, 2020). In the 2001 edition of Bloom's Taxonomy, "creation" has taken the place of "synthesis" as the highest-order thinking ability from the 1956 original.It means putting parts together in a new way and mak ing them into a new, complete whole.

It includes more than just remembering; it also includes plann ing, developing, and making (Anderson & Krathwohl, 2001).

Review of Literature

Fleissner-Martin *et al*. (2024) analysed the logical incorporation of creativity into eighth-grade science curriculum modules to improve competency development. A fundamental ecological unit about forests was addressed in the learning modules' material, which could be used as an analog or digital lesson. The creative subscales "Act" and "Flow" were used in the study, which produced a distinct factorial structure. Notably, regardless of the mode of instruction—analog or digital—higher levels of creativity were linked to greater cognitive learning accomplishments among students.

Mann (2006) defined mathematical creativity, explored the problems and ramifications for mathematics instruction, and built an understanding of the creative math learner.

Golann (1963) observed that products, process, measurement, and personality were the four main areas of creativity. The process was examined across time, along with the definition and criteria, and the required environmental and personal circumstances, which were identified as the three primary concerns. The relationship between creativity and intelligence was examined in order to demonstrate the necessity of conceptual rearrangement and correlational data.

Types of Creativity

Various types of creativity have been discussed bellow.

i) **Mini-c Creativity:** Small-scale, personally significant insights, such as a child's drawing or an original way of arranging Lego) (Ismayilzada *et al*., 2024).

ii) **Little-c Creativity:** Routine problem-solving in daily life, such as discovering clever cleaning methods or cooking with unconventional ingredients, which is exhibited by most individuals (Ismayilzada *et al*., 2024).

iii) **Pro-c Creativity:** Innovative efforts of capable professionals whose contributions are creative but do not significantly transform a field, such as artists, scientists, and designers engaged in non-revolutionary work (Ismayilzada *et al*., 2024).

iv) **Big-C Creativity:** Groundbreaking achievements that transform a discipline or shape history, such as Darwin's theory of evolution, the printing press, the *Mona Lisa* (Ismayilzada *et al*., 2024).

v) **Divergent Thinking:** Producing numerous, diverse, and original ideas when multiple responses are possible, such as in the alternate uses test (Zhang *et al*., 2020).

vi) **Convergent Thinking:** Selecting the most suitable solution within given constraints, such as in the remote associates test (Cortes *et al*., 2019).

vii) **Scientific Creativity:** Scientific creativity in young individuals involves both divergent exploration and convergent integration, which show limited correlation

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but interact in meaningful ways, as divergence predicts creativity chiefly when convergent skills are well developed (De Vries & Lubart, 2019).

Learning and Creativity

The relationship between learning and creativity is discussed below.

i) **Domain Learning Model:** As domain-specific knowledge increases, creativity becomes more socially grounded and cognitively demanding, with a reciprocal relationship in which creativity both supports and is enhanced by domain learning (Dumas *et al*., 2024).

ii) **Montessori & Learner-centered Approaches:** Learner-centered approaches, including Montessori education, are associated with higher creativity and improved academic outcomes, largely due to opportunities for self-directed and creative engagement rather than solely improvements in executive functioning (Denervaud *et al*., 2019).

iii) **Cooperative Learning & Interaction:** Collaborative learning strategies, such as project-based work and peer interaction, promote divergent thinking more effectively than individualistic methods or loosely structured group activities (Segundo-Marcos *et al*., 2023).

iv) **Neurocognitive Perspective:** Neurocognitive research indicates that creativity shares overlapping mechanisms with executive functions, divergent thinking, and predictive processing, linking it to enhanced reading, comprehension, and writing performance (Tzachrista *et al*., 2023).

v) **Creativity and Learning as Change Processes:** Both creativity and learning are conceptualized as processes of change: creativity generates novel and valuable outcomes, whereas learning leads to relatively enduring changes in knowledge and behavior (Dumas *et al*., 2024).

Conclusion

In conclusion, within the context of creativity and learning, these perspectives suggest that creativity is not merely an innate talent; rather, it is a dynamic process shaped by mental abilities, social interaction, and environmental support. The study further reveals that effective learning environments should promote divergent thinking, a spirit of inquiry, and meaningful engagement instead of rote memorization. By incorporating these concepts into classroom practices, educators can foster students' innovative thinking and contribute to their overall development.

The interrelationship between creativity and learning plays a central role in developing adaptable, reflective, and future-oriented individuals in the 21st century. In the present educational landscape, further research is needed to explore how contemporary educational practices, digital technologies, and diverse learning environments can more effectively support the development of creativity.

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