

Interdisciplinary Learning Models for 21st Century Skills Development

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Abstract

The growing complexity of global challenges in the 21st century has underscored the need for educational approaches that transcend traditional disciplinary boundaries. This study examines interdisciplinary learning models as a transformative framework for fostering essential 21st-century skills, including critical thinking, creativity, collaboration, and communication. The primary objective is to analyze how interdisciplinary approaches contribute to holistic learning and skill development among students across different educational contexts. Grounded in constructivist and experiential learning theories, the study adopts a mixed-method research design, incorporating surveys of students and teachers along with case studies of institutions implementing interdisciplinary curricula. The findings reveal that models such as project-based learning, problem-based learning, and integrated curriculum design significantly enhance student engagement, knowledge retention, and real-world problem-solving abilities. These approaches encourage learners to draw connections across subjects, thereby promoting deeper understanding and transferable skills. However, the study also identifies challenges including rigid curriculum structures, lack of teacher preparedness, and assessment constraints that limit the effective implementation of interdisciplinary practices. The research highlights the need for curriculum reform, teacher training, and flexible assessment strategies to support interdisciplinary learning environments. In conclusion, interdisciplinary learning models play a crucial role in preparing learners for the demands of the 21st century by equipping them with adaptive and transferable skills. The study advocates for systemic changes in educational policy and practice to integrate interdisciplinary approaches as a core component of contemporary education systems.

Keywords: Interdisciplinary Learning, 21st Century Skills, Project-Based Learning, Critical Thinking, Curriculum Integration, Experiential Learning.