

The Impact of Tech-Assisted Learning on Student Creativity: A Comparative Study in Qatari International Schools

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Abstract

The increasing integration of technology in Qatar's international schools, driven by initiatives like Qatar National Vision 2030, has transformed educational practices while raising concerns about its potential impact on student creativity. This study examines whether over-reliance on digital tools limits creative problem-solving compared to traditional analog methods through a comparative quantitative analysis of middle and secondary students in Doha's well-resourced international schools. While technology offers enhanced engagement and accessibility, preliminary research suggests it may constrain divergent thinking through ready-made solutions and automated processes (Henriksen et al., 2016), whereas analog methods potentially foster greater originality and exploratory thinking (Mishra & Henriksen, 2018). Focusing on Qatar's unique educational context—where students enjoy privileged access to cutting-edge technology but may face reduced opportunities for hands-on creative work—this research addresses a critical gap in literature that has predominantly focused on Western education systems (Runco, 2014). Using standardized creativity assessments alongside classroom observations, the study investigates how different learning modalities affect creative output, with expected outcomes including: identification of specific digital tools that may inhibit creativity, analysis of optimal technology integration levels, and development of evidence-based recommendations for balancing digital and analog approaches in Qatari classrooms. The findings will provide valuable insights for educators seeking to optimize technology use while preserving creative thinking skills, curriculum developers designing future-ready learning experiences, and policymakers shaping Qatar's educational technology strategies, ultimately ensuring that technological advancements enhance rather than compromise students' creative potential in preparation for a knowledge-based economy.

Keywords: educational technology; creativity; digital learning; Qatar education; problem-solving