

Book Review

Curriculum Integration in Contemporary Teaching Practice: Emerging Research and Opportunities

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Curriculum Integration in Contemporary Teaching Practice: Emerging Research and Opportunities
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For years, means to encourage science, technology, engineering, and math (STEM) competencies have been valued by numerous foundations, non-profits, corporations, and even governmental agencies (Tran, 2018). Yet globalization and collaboration continue to change current styles of work and learning. According to “*Creativity Vs Robots*” report (Bakhshi, Frey & Osborne, 2015), as US employment faces the threat of automation over the next decade or two, 21 percent of creative occupations which fall in the highly creative category are found to be at low or no risk of automation. To nurture K-12 students’ ability to utilize creativity and social intelligence, schools need an interdisciplinary curriculum approach which integrates arts and social studies into the STEM model. Combining reading throughout content areas, the STREAMSS (Science, Technology, Reading, Engineering, Arts, Mathematics, and Social Studies) approach is formed. The book “*Curriculum Integration in Contemporary Teaching Practice: Emerging Research and Opportunities*” could serve as a good guidebook for educators trying the STREAMSS approach in K-12 education.

Through the introductory chapter, the authors encourage teachers to redesign the K-12 curriculum to include interdisciplinary learning. They not only promote the benefits of an interdisciplinary curriculum for all stakeholders, they also lay out the difficulties and possible solutions in designing and implementing new curriculum. The authors propose the STREAMSS model as an innovative framework for curriculum designers and state that by treating all disciplines as equally important, educators can achieve elevating students’ competencies and skills, and perhaps help students become life-long learners.

The second chapter looks into how historical and contemporary theorists influence the world of education. With a brief introduction of each theorist's philosophies and a clear-cut table presented at the end of the chapter, the authors make it clear for readers to understand the contributions from different perspectives of education. Further, the authors propose that as educators become more familiar with these theories, they can provide students with a wider view when adapting multidisciplinary curriculum. Better interaction, firmer relationships, and more meaningful communications in educational settings will be beneficial to all stakeholders.

The next chapter dives into the core of social studies teaching and learning. By stating the difficulties that educators face and negative views which students hold of social studies integration, the authors try to provide solutions as to how social studies could be integrated into STREAM, and refer to the guidance and support from the National Council for Social Studies. Then the authors help readers walk through four main social studies disciplines for a more detailed understanding of social studies and to identify strategies and pedagogical methods for K-12 educators.

Chapter 4 deals with the controversies and problems of K-12 arts integrated curriculum. Many educators feel overwhelmed about bringing an unfamiliar discipline, such as arts, into the existing curriculum, instead of using the arts as means to guide students in discovering the joys of learning. The authors break down "art" into four parts (arts criticism, arts history, aesthetics, and arts production/performance) with detailed explanations for readers. Practical tables designed by the authors to help illustrate steps and strategies for arts integration, and possible implications in real life examples of how educators could integrate arts into the STREAMSS curriculum are presented. The authors express great hopes that students under STREAMSS curriculum may creatively work for a better future.

The fifth chapter provides guidance for educators to utilize the means at hand when designing integrated curriculum. Besides school programs, field trips, and arrangements of guest speakers, the authors also suggest teachers could team up for classes, join personal learning communities, and apply available technology tools and Internet resources. Detailed instructions regarding integrating STREAMSS into the high school curriculum are carefully organized in lucid tables for readers to follow.

In the final chapter, the authors present a list of interdisciplinary online resources for educators to explore and serve as sources of inspiration. Two short case studies are then provided to illustrate actual scenarios which educators could face when implementing STREAMSS curriculum. Key concepts for effective curriculum integration are compiled into an extensive list of suggested teaching and learning strategies, along with some advice for educators to refer to, so that they will be able to meet students' unique needs and strengths.

This book is written sensibly with clear objectives; readers can comprehend core concepts with ease, and see how to incorporate the strategies into real life scenarios. Explicit figures and tables are carefully arranged. In addition, authors provide inspiring suggestions to help educators creating meaningful activities when adopting a STREAMSS interdisciplinary model. The authors emphasize the pressing needs of using interdisciplinary teaching to nurture and prepare K-12 students for a competitive future; yet it would be more convincing if data illustrating that students demonstrate more competence under a STREAMSS teaching method than those who did not experience this method. Moreover, if interviews or surveys of students participating in interdisciplinary learning could be presented, then educators could be more motivated by this evidence, and build reasonable expectations for future teaching utilizing this model.

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