

EDITORIAL

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In this issue of J-STEM, we have five articles focusing on diverse issues in STEM education. Best, Best and Dickter (2019) explore whether pedagogical and curricular features of a STEM curriculum called, STEMtrix program they have designed increase minority students', specifically African American students' self-efficacy and self-concept to pursue a STEM career. Their study has specific implications for designing out of school STEM experiences that are meaningful and built based on pedagogically sound principles.

Newton and colleagues explore students' experiences with scientific practices more specifically their experiences with experimental design, data representation/visualization and data-based decision making in middle schools in the Evaluation Approach: Practice-Focused Middle School Science Modules article. The article explores the impact of these learning modules on students from four middle schools. They make a valuable contribution to the field as there is a heightened interest in integration of data and data-related practices in school science curriculum. The modules they developed, implemented and evaluated can serve as examples for those aiming to design similar modules and the evaluation methods they have used can serve as a resource for those interested in curriculum design and impact studies.

Demir, Gul and Czerniak (2019) focus on an important issue, the recruitment of STEM teachers. They build on their three-year program focusing on the recruitment of STEM teachers and the relevant literature to recommend recruitment strategies for increasing the pool of potential STEM teachers starting from high school.

Fridberg and Redfors (2019) introduce an interesting concept, specifically the didactic game taking place between the children and their teachers during inquiry-based STEM activities using the Joint Action Theory of Didactics. They explore if utilization of digital tools makes a difference in how the teachers implements the inquiry-based activities. Their findings make valuable contributions to the ways in which teachers enact inquiry-based activities and highlight the role of teacher in facilitating student learning in early grades.

Griffith (2019) from the University of West Indies explores the extent to which the end of secondary school examinations reflects the ideals of recent curriculum efforts in STEM education in the Caribbean in the Growth rate in CXC STEM subject entries, Implications for meeting the developmental needs of the Caribbean. Based on the findings of his analysis Griffith problematizes fidelity of reform efforts and makes policy recommendation for effective implementation of reform implementation.

Collectively, the articles in this issue of J-STEM make unique contributions to the STEM education literature ranging from early childhood education to teacher recruitment.