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Seeds to Shoreline: A Place-based Approach to Impacting Student Engagement and Achievement

ABSTRACT

Place-based education refers to pedagogy that connects student learning with the local ecological phenomena and students' lived experience. The disconnect between students' lived experience and formal education in school has been exacerbated by our national preoccupation with standardized test scores. Schools have developed systems of learning in isolated subjects through reading texts, listening to lectures, or watching videos rather than authentic, experiential learning. School districts have embraced a STEM (science, technology, engineering, and science) approach to education as a way of invigorating student learning. There are many approaches to integrating, hands-on, inquiry-based science lessons. As science PASS test scores have declined, educators are examining best STEM instructional practices. Two essential questions guided the research. What impact would the implementation of Seeds to Shoreline®, a place-based educational program, have on student attitude toward learning science and student achievement? At the conclusion of an action research study, the teacher-researcher found: (1) an increase in pre and post assessments of student attitude and engagement in learning science, (2) an increase in test scores after the implementation of the Seeds to Shoreline® program, (3) an appreciation for the historical approaches and pedagogical evolution of

place-based education, and (4) an appreciation for place-based education as a method of instruction and learning which incorporates interdisciplinary learning, problem-based learning, immersive experiential learning, student centered learning, and a constructivist model of learning.

Key Words: place-based learning, STEM, interdisciplinary learning, problem-based learning, experiential learning, student-centered learning, constructivist model, social justice, action research.

