

## **Using Science, Technology, Engineering, Art and Mathematics (STEAM) Project-Based Learning Programs to Transition towards Whole School Pedagogical Shift**

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**Abstract :** Evidencing the learning and developmental needs of students in specific educational institutions is central to determining the type of whole school pedagogical shift required. Initiating this transition by designing and implementing STEAM (Science, technology, engineering, art, and mathematics) project-based learning opportunities, in collaboration with industry, exposes teachers to new pedagogical and assessment practices. This experience instills confidence and a renewed sense of energy, which contributes to greater efficacy. Championing teachers in such learning environments leads to “bleeding” of inventive pedagogical understanding and skills as well as motivation. This contributes positively to collective teacher efficacy and the transition towards more cross-disciplinary initiatives and opportunities, and hence an innovative pedagogical shift. Evidence of skill and knowledge development in students, combined with greater confidence, work ethic and interest in STEAM areas, are further indicators of the success of the transitioning process.

**Keywords :** efficacy, pedagogy, transition, STEAM

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