Project-Based Learning Application: Applying Systems Thinking Concepts to Assure Continuous Improvement

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Abstract : The major findings of this study discuss the importance of understanding and applying Systems thinking concepts to ensure an effective Project-Based Learning environment. A pilot project study of a major pedagogical change was conducted over a five year period with the goal to give students real world, hands-on learning experiences and the opportunity to apply what they had learned over the past two years of their business program. The first two weeks of the fifteen week semester utilized teaching methods of lectures, guest speakers and design thinking workshops to prepare students for the project work. For the remaining thirteen weeks of the semester, the students worked with actual business owners and clients on projects and challenges. The first three years of the five year study focused on student feedback to ensure a quality learning experience and continuous improvement process was developed. The final two years of the study, examined the conceptual understanding and perception of learning and teaching by faculty using Project-Based Learning pedagogy as compared to lectures and more traditional teaching methods was performed. Relevant literature was reviewed and data collected from program faculty participants who completed pre-and post-semester interviews and surveys over a two year period. Systems thinking concepts were applied to better understand the challenges for faculty using Project-Based Learning pedagogy as compared to more traditional teaching methods. Factors such as instructor and student fatigue, motivation, quality of work and enthusiasm were explored to better understand how to provide faculty with effective support and resources when using Project-Based Learning pedagogy as the main teaching method. This study provides value by presenting generalizable, foundational knowledge by offering suggestions for practical solutions to assure student and teacher engagement in Project-Based Learning courses.
Keywords : continuous improvement, project-based learning, systems thinking, teacher engagement
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