

# Enhancing Student Learning through a Recipe of Blended Learning

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The construction industry is unique in terms of the diversity of calibers that form a team for a successful project. In an effort to improve student learning and help students develop self-directed learning skills, several faculty within the Department of Civil Engineering and Construction (CEC) are examining alternative teaching and classroom management approaches. One such approach involves the use of “blended learning” which combines the convenience of online instructional delivery (flexibility with time, place, and pace) with the attributes of a traditional classroom environment (opportunity to ask questions, availability of instructor guidance, ability to collaborate with peers). The online and classroom portions are blended through their integrated and synergistic nature.

This poster summarizes the results of a project conducted during the Fall 2018 semester in which a blended learning classroom model was used for two different required courses (taught by two different faculty) within the Construction program. One course was a sophomore level “Introduction to Structures” course and the other was a senior level course in cost estimating. Whereas qualitative data was collected using questionnaires given to students at both the beginning and end of the semester, quantitative data was collected using Likert-scale questions addressing the impact of the blended learning on student learning and problem-solving skills. The Likert questions were separated into three broad categories: instruction, technology, engagement and satisfaction.

Results from this study provide insight into student perspectives to blended learning as well as specific strategies in how to best integrate the online and classroom elements of each class. This insight is crucial as educators transition students from a traditional passive classroom environment to an active learning environment in which they become active learners.

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