Impacts of Intentional Planning for Active Learning Environments

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Impacts of Intentional Planning for Active Learning Environments

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Abstract, #2305

High levels of student engagement have been shown to be associated with such educational practices and conditions as purposeful student-faculty contact, active and collaborative learning, and institutional environments perceived by students to be inclusive and affirming with clearly communicated expectations for high levels of performance (Aslin, 1993; Johnson, Johnson, & Smith, 1991; McKeeachie, Pintrich, Lin, & Smith, 1986; Pascarella & Terenzini, 2005; Sorcinelli, 1991). While many universities are creating “active learning classrooms” (ALC) to facilitate these high levels of student engagement, little research beyond space utilization and student satisfaction with new or reconfigured classrooms has been conducted (Painter et al., 2013; Temple, 2008). Thus, this multi-method study investigated the effects of ALCs on student success, engagement, and faculty’s teaching strategies in both undergraduate (Site #1) and graduate (Site #2) classrooms.

Student surveys found significant differences between baseline and post surveys for three of the four areas at Site #1 and significant differences in all four areas at Site #2. The one area in which significant differences were not found at Site #1 was “Higher Level Thinking and Perspectives” and there were many factors including the demographics of being an undergraduate population that could have been at play. Faculty interviews indicated that the classroom design had an influence on changing their teaching style and that they were knowledgeable about their students.

The results show evidence that classroom design impacts student engagement and success. Three areas showed significant differences regardless of undergraduate or graduate status, urban or rural college setting. Namely “Learning Engagement and Productivity,” “Peer Engagement,” and “Space Functionality” all showed significant results. With Site #2, which included primarily graduate students, the fourth area measured, “Higher Level Thinking and Perspectives,” also showed significant differences from the baseline data at the post-survey data.

The faculty interviews showed that regarding site, these classrooms impacted how they incorporated more dynamic, active learning strategies that emphasized higher level thinking skills within their courses. Site #1 faculty who taught primarily undergraduates spoke about the advantages of the technology including whiteboards, multiple focal points, and the document camera. Graduate faculty teaching in the health science areas focused on the comfort of the classroom.

“I’ve taught classes in March 303 ranging from an 8-student research seminar to a 26-student mixed lecture/discussion section, and the room has handled everything we threw at it. It’s easy to move from two to four to student small groups to centralized discussion using the document camera and multiple-projector setup. What has been especially useful to me is the accessibility of every part of the room. Even the most hesitant student is comfortable using their own whiteboard space and table discussion area to work with their peers.”

CRAIG TENENHOUSE, ASSOCIATE PROFESSOR, APPLIED MATHEMATICS

“The room format allows for student involvement that would never happen in a traditional setting as seen in this recent photo. My students were practicing an oral education lesson for a kindergarten classroom and as they began, the other students, unprompted, moved to the floor to make it more “realistic” and interacted in a way I’ve never seen happen before. It is simple things like this that add to the overall learning experience in a classroom.”

COURTNEY VANNAH, ASST. CLINICAL PROFESSOR, DENTAL HYGIENE

The classroom observations substantiate this in reporting the vast use of small group work and the fluid nature of the classroom set-up moving from whole group to small group work to role-playing, etc.

Limitations

- Generalizability limited to other universities with similar demographics.
- Instrument development relied on exploratory factor analysis.
- ANCOVAs were based on unpaired data.

References


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