
**Summary**

Qualters discusses a study conducted to measure students’ reactions to a shift in classroom environment from a teacher-centered to a student-centered focus. The study took as an assumption the many positive impacts of active learning methodologies highlighted in much of the literature pertaining to the scholarship of teaching and learning. Moreover, rather than examine the impact of an active learning approach on student learning outcomes, the study focused on measuring the attitudes of students on the quality of the educational experience in the classrooms examined. To this end, the study evaluated the views of students (ranging from sophomores to seniors) in five applied science classes, in which the level of active-learning varied from traditional lecture with a few group or individual activities to project based classes. At the end of the semester the students in these classes were asked to fill out anonymous surveys that asked four questions: 1) Discuss the relative strengths and weaknesses of active learning teaching techniques relative to traditional blackboard/lecture format; 2) Discuss the effect of the active learning techniques on their perceived ability to understand material relative to traditional blackboard/lecture format; 3) Discuss the inclusion of active learning techniques and their effect on the enjoyment level of the class; 4) Reflect on their experience as a learner, and describe how they perceived the changed teaching methods matched their style. Of the 156 students in the five classes, 113 returned surveys.

According to Qualters, the students’ responses “were enlightening, dismaying, helpful, and hopeful at the same time.” Overall, however, four main themes emerged from the analysis of the survey responses: 1) students had a generally positive attitude towards active learning; 2) the students believed that active learning techniques had improved their “ability and efficiency in studying”; 3) they felt that active learning had made the learning environment more enjoyable; 4) active learning promoted metacognition in regards to learning and learning styles. In terms of negative reflections, students worried that in-class activities took up too much time, and subsequently did not allow for coverage of the requisite material. Additionally, some students experienced anxiety.

**Conclusions**

According to Qualters’, the study showed that students felt that active learning had real value and improved the quality of the educational environment. Students noted that they felt a greater sense of ownership of the learning they engaged in, had experienced a closer relationship with their professors, and found that active learning techniques helped them apply their learning to tackling problems outside of the classroom. The study also helped identify some of the challenges, from the student perspective, to the implementation of active learning modalities. Most importantly, the study highlighted that some students are simply less willing or able to deal with the changes inherent in an active learning environment. Rather than ignore these concerns, Qualters suggests that they illustrate the need to ensure that students are made aware of the benefits of active learning, and that faculty need to help
students redefine the nature of learning, especially those who continue view learning at the university level as a largely passive endeavor.

**Applications**

To a large extent, this study validates the shift towards active learning in the realm of higher education. In doing so, however, it offers some thoughtful considerations as UDC continues its efforts at redefining the University as institute of advanced teaching and learning. First, this study cogently notes that we should be careful about making assumptions regarding what students think and feel about innovation in the classroom. It would be conducive to adopting a research based approach to innovation at UDC to conduct similar surveys of our students in order to gauge their attitudes towards various classroom environments. Second, Qualters' article stresses the importance of open and clear communication with students as vital to any process of change. Finally, the study notes that both faculty and administrative staff need to recognize that some students will continue to be apprehensive about such changes.

**Citations of Interest**

