In this article the authors discuss a study they conducted to examine the comparative benefits of teaching a sociology course through traditional and active learning approaches. According to the authors, higher education has come under increasing economic pressures to maximize efficiency in the classroom. As such, the large lecture format constitutes a logical solution to the aforementioned problem. And yet, within the academic world lecture has been increasingly perceived as an ineffective method for imparting meaningful knowledge and learning in higher education. In contrast, academics have stressed the potential of a variety of active learning techniques and approaches as mechanisms for fostering deeper learning in college students.

Given the conflict between these two forces within the higher educational world, the authors decided to test the comparative benefits of lecture and an active learning approach known as Team Based Learning (TBL) in the same 300 level sociology course at the same large, state university. One professor utilized a lecture centered approach to teaching, while the other employed TBL. To better facilitate their study, they agreed upon three common learning objectives: understanding the meaning of core concepts related to crime, law, and deviance; drawing informed conclusions about patterns of crime and victimization; and utilizing a variety of analytical assessments to evaluate and apply theories of criminal behavior. With these objectives in mind the authors then posited five hypotheses for their study: students in the lecture course would gain better mastery of the first two learning outcomes, while the students in the TBL sections would perform better in the third SLO; students in the lecture based sections would perform less well on tasks that involved applying theory; students in the lecture sections would also perform less well on written and oral communication assessments than those in the TBL sections; students in the TBL sections would view the class as entailing a heavy workload than would those students in the lecture sections; and, students in the TBL sections would enjoy their educational experience more so than would students in the lecture classes.

In order to test these hypotheses, the authors utilized the same reading materials and examines. One professor, however, taught the course largely through the use of PowerPoint based lectures. The other professor used a TBL approach. This process began with an out of class reading assignment, followed by a brief, multiple choice readiness assessment test (RAT). At the start of class, students would take the RAT again, but this time in their respective teams. After a ten minute lecture in which the professor outlined an organizational framework for the given unit and key theories, the students’ teams were given a choice of three case studies to analyze. Once they had chosen their case study, teams picked one of three theories that best explained the case study, developed a defense of their choice, and compared their answers with other teams. The class session ended with a general discussion of the strengths and weaknesses of the theories in explaining the associated case studies.
The authors offered an extensive discussion of the methodology upon which they based their study. In compliance with the authors’ university’s IRB, they asked students for permission to compare their results on seven exams and to survey them on a variety of questions pertaining to student learning outcomes and student attitudes towards the courses themselves. Out of the two hundred and forty-four students enrolled in the various sections, 71.6% agreed to these requests. Only 49% of the students ultimately responded to the survey, however.

Based on the seven exams and the submitted student surveys, the authors offered a series of study findings. First, the mean score on the exams for students in the lecture course was 81.49%, while students in the TBL sections scored a mean of 83.61%. From this data the authors argued that the study, in addition to showing no statistically significant data, produced a result that was, if indicative of anything, contrary to their first hypothesis. On questions on the exams that assessed the application of theory and knowledge (hypothesis 2), students in the lecture based sections scored a mean of 80.78%, while those in the TBL sections scored a mean of 81.78%. While the difference here was also slight, the authors additionally noted that there was a considerably smaller standard deviation in scores among students in the TBL classes, and thus they argued that this suggested that the team based learning approach potentially had a significant impact in this area. According to the data, students in the TBL sections self-reported greater increases in verbal communication and creative thinking skills than did those in lecture classes, thus validating hypothesis three. Similarly, students in the TBL sections perceived of the course as demanding a considerable greater workload than the other courses they had enrolled in. Finally, the authors noted that the surveys indicated no appreciable difference between the two sets of students in terms of their enjoyment of the class, although students in the TBL sections indicated that they had gotten to know their professor and peers better than did those in the lecture sections.

Conclusions

After conducting their study, the authors concluded that neither of the approaches that they utilized in teaching the same course was inherently better or worse in terms of promoting student learning outcomes. Though students in the TBL sections did indicated a noticeably greater sense of improvement in certain learning skills, the quantitative data did not produce statistically significant differences in test scores on course knowledge or application. Further, the authors noted that a variety of factors, including the considerable teaching skills of both of the instructors, could have influenced the outcomes in the study. Finally, the authors suggested that given students’ perceptions that courses based on an active learning approach entails a heavier workload than those taught through traditional means, professors who adopt active learning methods need to prepare their students and explain the rationale behind their pedagogical choices.

Applications

This article presents a conundrum for the professor considering the use of active learning approaches in his or her courses. On the one hand, like many studies focused on quantitative assessments of active learning measures, this article offers no definitive proof that such methodologies produce stronger
learning outcomes. On the other hand, however, it does suggest, in less quantitative terms, that active learning methodologies have significant benefits in terms of a variety of skills not only determined by scholarly research to be highly relevant to effective educational and professional development, but also appreciated by students as preferable and valuable to them. Luckily, this problem, in at least one sense, is moot when considered in the context of the University of the District of Columbia. Given our generally small class-size format, the need to consider the efficiencies of lecture is relatively unimportant. Moreover, it would seem reasonable to suggest that certain aspects of the benefits of active learning techniques, such as better oral communication, critical thinking, and team work skills, all of which are prized by the professional world, may simply be inherently difficult to measure quantitatively in a normal academic sense. Beyond these considerations, this article offers some useful suggestions for ready application at UDC. First, it presents a brief, yet effective description of a team based learning approach. While further and fuller descriptions of the methodology should be consulted, this article nonetheless provides an effective introduction to the process by which one can effectively employ the technique. Second, it importantly emphasizes the need for professors to prepare their students, many of whom may take passive learning as the norm in college, for the workload seemingly created by student-centered active learning approaches. Finally, though contrary to the central message of advanced teaching and learning philosophies, lecture may indeed have a useful purpose within the higher educational realm.

Citations of Interest


