

The Application of Collaborative Learning in Quantitative Instruction

Abstract

Current recommendations to reform statistics education in business coursework are to include collaborative learning activities in course delivery to either supplement, or replace, traditional lectures. It is recognised that students vary in their particular learning styles. This paper compares the student outcomes associated with course delivery by way of collaborative learning as opposed to traditional lectures. Further investigated is the potential to improve post graduate student outcomes by tailoring course delivery methods to take into account the individual learning styles of students. In this study of post graduate quantitative students (in Business) participants were randomly divided into two classes. Students in one class undertook collaborative learning activities during their weekly session. The other class attended a traditional weekly lecture. The collaborative students viewed a digitally prepared lecture before attending each week and instead of receiving the traditional lecture they used the allocated lecture time to collaborate in groups to complete a set of examples. They then presented their solutions to the class. The group receiving the traditional lecture only observed as the same set of examples were completed in class, by the lecturer. Students in both groups worked individually to prepare tutorial solutions for the next weekly class. It is noted that previous research on undergraduate classes suggests improved scores for students undertaking collaborative learning and that students having a certain learning style benefit more from collaborative methods of instruction. Comparative discussion of the undergraduate and post-graduate outcomes will also appear in this paper.