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Comparative analysis of student performance in flipped and traditional classroom models

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Abstract

Rapid change in technology has transformed the way of interaction between the teacher and student especially in engineering education where large classes are now common. Students have changed how they want to learn and how quickly they want feedback in their learning. Flipped classroom model has become very important as it promotes active involvement and participation by students and allows the teacher to efficiently engage with students in their learning process. This research study investigates the impact of flipped and traditional classroom models on student performance among third year electrical engineering students. In the flipped classroom model students were instructed to watch pre-recorded videos before the lecture and during lecture time interactive learning was used to discuss the lecture content. The student's performance on four tests were compared between the two groups using t-test. The results show that students who experienced flipped classroom model performed better than the students who attended the traditional class-room model.

Keywords: flipped classroom, t-test, engineering students, education