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ANALYSIS OF PEER-LED TEAM LEARNING (PLTL) DATA FOR CALCULUS USING LINEAR MIXED EFFECTS MODELS

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This paper presents the effectiveness of Peer-Led Team Learning (PLTL) program for Calculus held for the last four consecutive semesters. Linear mixed effects models were developed for all cohorts. Random effects were introduced to model the correlation within students and professors across courses. It was revealed that the struggling students, as measured by their performance in the first midterm exam, benefited more from participating in PLTL than those who performed better in the first exam. However, high performers also gained reasonable benefits by actively participating in the PLTL program. This result will likely impact decisions of future PLTL participants.