

ABSTRACT

DISSERTATION: The Effect of Electronic Response Systems: Relationship Between Perceptions and Class Performance, and Difference by Gender and Academic Ability

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The current study sought to extend knowledge on effectiveness of Electronic Response Systems (ERS) or “clickers” in a college classroom by comparing student assessment performance between two sections ($n = 41$ & 42) of a Biblical Studies course in a small evangelical university. Student characteristics were virtually identical in the classes, taught by the same instructor. In one section, the instructor used ERS two to four times a week to administer quizzes or start discussions. Results showed no statistically significant evidence of improved performance in the ERS class, measured on a wide variety of assignment, quiz, and exam scores, including pre-test/post-test improvement in knowledge. Gender, prior GPA, and other demographic differences did not interact with the manipulation. It was speculated that use of ERS may have failed to make a difference in the current study because the system was not used frequently enough or for engaging activities, or because the use of ERS in a small class may not have provided benefits beyond the usual class experience. Interestingly, however, a student survey given at the beginning and end of the semester showed that students in the ERS class significantly improved their opinion of the system, indicating that they felt they had performed

better as a result of using the clickers. (Students' opinions in the control class declined.) Thus, students believed that ERS had improved their performance, although objectively it had not. It was concluded that relying on student opinions on the benefits of ERS may be misleading.