The Effects of Online Homework in a University Finite Mathematics Course

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Abstract: Over the past 15 years, mathematics departments have begun to incorporate online homework systems in mathematics courses. Several studies of online homework systems have shown them to be as effective as traditional homework, while others have shown them to be less effective for certain audiences. Our study seeks to add to the body of research examining the effectiveness of web-based homework systems by examining the performance of students in two Finite Mathematics classes. This study will compare the individual final exam items and overall exam performance of the students in the web-based and traditional homework sections. Additionally, the study will examine and compare the types of questions that traditional and web-based homework students tend to get correct (or incorrect) in order to gain insight into the depth of learning that may be promoted using either homework system.

Keywords: online homework, learning outcomes, effective practice