Kedar M Nepal* (nepal_k@mercer.edu), 1501 Mercer University Drive, Department of Mathematics, Mercer University, Macon, GA 31207, and Khyam Paneru. *Are They Doing the Homework or Only Finding the Answers?

We will present results of a pilot and an actual study on Calculus students' use of web-based homework. We collected student answers to problems on web-based homework, the number of attempts they used, the total time they spent to complete the homework, and their grades on the homework. Weekly in-class quizzes were given the day after the homework had been submitted, which included problems identical to those on the most recent homework. Our results showed that overwhelming majority of students received very high grades on the homework, but half of them received a low D or F on the quizzes. About 70% of the students used at most two attempts to solve the problems. Those who received D or F on the quizzes had spent the least amount of time on the homework, but their homework grades were no different from those receiving high grades on the quizzes. Our results indicated that many students might complete their homework with a great deal of external assistance. We will present how a minor intervention can make sizable impact on their performance on in-class quizzes and exams. Control group scored significantly higher on the web-based homework than the treatment group, but the treatment group outperformed the control group on the in-class quizzes and exams. (Received September 23, 2018)