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Adam R. Lucas* (ar13@stmarys-ca.edu), San Francisco, 94115. *Using WeBWorK, A Web-Based Homework Delivery And Grading System, To Help Prepare Students For Peer Instruction.*

As an instructor who commonly devotes as much as a third of class time to i-clicker use and peer instruction, it is essential for me to cut down on time spent transferring information. To cover topics in sufficient depth I require students to carefully read the textbook before coming to class. To help them focus on key points in the reading and track their progress, I use WeBWorK, a system of online exercises. In this study I investigate the benefits and challenges of using WeBWorK in a lower division Introduction to Programming class and an upper division Probability and Statistics class. In the lower division class, WeBWorK significantly improved peer instruction performance and resulted in students reading on average 45% longer. WeBWorK and i-clicker scores correlate well with other measures of learning and provides early warning signs of students having difficulty. (Received August 17, 2009)