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Matthew G Jones* (mjones@csudh.edu). *The Effectiveness of Concept Questions in a Transition to Proof Course*. Preliminary report.

Concept questions are a core feature of Interactive Engagement, a pedagogical approach indicated by research as effective in physics (Hake, 1998), and more recently, in calculus (Epstein, 2013). Concept questions are designed as brief, typically non-computational questions in a true-false or multiple-choice format, in which the question is posed, all students are required to respond (via clickers or other devices), students discuss their thinking, and then students respond again. If the class has not converged on the correct answer, then the instructor engages the students in further explanation or activity on the concept. The fundamental question that will be explored is: What is the impact of using concept questions on students' understanding of core ideas in a transition to proof course? To evaluate this question, I will explore students' performance on concept questions and its relation to their performance on exams. In addition, I will compare students' performance on the final exam to performance of a prior cohort of students in the same course in which concept questions were not used extensively. In addition, I will describe how the questions are integrated into the course meetings and grading structure, and I will share sample questions. (Received August 18, 2014)