Tara C Davis* (taracdavis@gmail.com), honolulu, HI 96813, and Hung Lu (hlu@hpu.edu), honolulu, HI 96813. Student-centered versus instructor-centered approaches to teaching mathematics. Preliminary report.

This action research study focuses on exploring whether the student-centered approaches such as group work, and individual in-class problem solving are more effective than the traditional instructor-centered lecture approach in our math classes. We are interested in learning whether students have higher levels of confidence and lower levels of math anxiety when taught more actively. In addition, we seek to understand the correlation between students' performance and preference between the two approaches. The study was conducted with 70 students at Vanderbilt University during the 2009-2010 academic year and will be conducted with approximately 90 students at Hawaii Pacific University in the Fall of 2011. The preliminary results indicated an interesting dichotomy between students' performance and their preference when being taught using the student-centered approach. Regardless of their better performance, students showed less preference for the student-centered approach. (Received August 30, 2011)