Kristin A. Camenga* (camenga@juniata.edu). What kinds of homework more effective for Calculus I students? Preliminary report.

How do students learn most effectively in Calculus? Research suggests that the time students spend practicing problems and the feedback that they receive have a positive impact on student learning. However, there are many ways to accomplish this practice and give feedback, so what is most effective? In two sections of Calculus I one instructor used three different treatments for practice and feedback in different orders: teacher created homework with a student grader, textbook homework, and self-check homework, some supplemented by online homework problems. In this talk, we will consider the effect of the treatments on student achievement as measured by exams and a common final as well as student confidence and preferences as self-reported on surveys. (Received September 16, 2019)