1145-J5-2969 **Andrew J Krause*** (krausea3@msu.edu), **Willie W Wong**, **Mark Iwen** and **Ryan Maccombs**. *Examining Student Engagement with Student-Driven Activities.* Preliminary report.

A wide range of teaching innovations have been implemented to promote active learning in college mathematics, such as course projects, in-class lab explorations, and even online homework. Research aimed at understanding the impact of these innovations has primarily focused on measuring student achievement–for example, Freeman and colleagues (2014) found that moving from traditional lecture to active learning substantially improved student achievement across a wide range of contexts. These achievement studies support the shift towards more student-centered teaching–this is good. However, achievement studies provide limited information about what college mathematics students are doing while they learn, how they feel about their coursework, and what motivates their learning strategies. I will present a qualitative examination of student engagement with calculus labs that has informed curriculum development, improved teaching, and helped us understand some of the complexity of students' learning experiences (especially with more student-driven activities). I will explain how this case study is an example of a research approach that can generate local data that compliments achievement studies to provide a more complete understanding of students' learning experiences. (Received September 25, 2018)