1145-E1-1260   **Aimee J Ellington***, ajellington@vcu.edu. *A Detailed Analysis of Two Methods of Instruction in College Precalculus: The Pros and Cons for Students and Instructors.*

For three semesters, Virginia Commonwealth University (VCU) offered Precalculus in two different instructional formats: (1) a traditional large-lecture instructor-driven format and (2) a format using an artificial intelligence web-based learning system with small group lectures on an as-needed basis. The purpose was to address the question: Which instructional method was most effective for students completing the course? This presentation describes the two course formats and presents the results of a detailed assessment to determine how each instructional method had an impact on student understanding of Precalculus concepts and, more broadly, on student achievement. The assessment included the following: (1) success rates in the course, (2) performance on common final exam questions, (3) performance in a subsequent course, and (4) student feedback during focus groups. The pros and cons for students and teachers will be discussed. And, based on the results of this assessment, VCU's plans for future changes to Precalculus instruction will also be presented. (Received September 20, 2018)