In an attempt to bring a more realistic environment into the classroom during assessments, we are piloting an alternate method of assessment in the *Mathematical Modeling and Introduction to Calculus* course at the United States Military Academy. Approximately 144 of the 900 students enrolled in the course for the fall 2017 semester are in sections receiving weekly assessments in place of major exams.

These assessments are primarily conceptual in nature and consist of three parts: a night before read-ahead introducing a new application, an in-class individual portion, and an in-class group portion.

In order to evaluate this innovative idea, we are collecting data on many fronts. We gain a base-line of the student’s knowledge through a pre-test and incorporate a post-test cumulative assessment that resembles a traditional exam. Additionally we examine the outcomes of the weekly assessments through individual and group responses and their corresponding scores. Finally, we use a pre- post-course survey to evaluate changes in attitudes and beliefs over the course of the semester.

Through the evaluation of this assessment technique we hope to determine if it should be expanded to a larger audience in the future. Preliminary findings of this evaluation are presented. (Received September 26, 2017)