

1145-R5-2674

**Kayla K. Blyman** ([kayla.blyman@usma.edu](mailto:kayla.blyman@usma.edu)), United States Military Academy, Department of Mathematical Sciences, 646 Swift Road, West Point, NY 10996, and **Kristin M. Arney** ([kristin.arney@usma.edu](mailto:kristin.arney@usma.edu)) and **Scott D. Warnke\*** ([scott.warnke@usma.edu](mailto:scott.warnke@usma.edu)). *Assessing Modeling Meaningfully in a Freshmen-Level Mathematical Modeling Course through Discovery Learning Assessments.*

Regardless of how engaging we make our classes, come exam time there is often a sterile facade that falls over the classroom. As instructors we can find ourselves struggling to develop realistic problems that can be solved meaningfully given exam time constraints and the limited mathematical toolbox that our students have available to them.

In an attempt to remove the exam-day facade we began assessing students with more meaningful problems in a more realistic environment with collaboration and technology available to assist them. Starting in the Fall 2017 semester, we began developing and implementing Discovery Learning Assessments in our course. This method entailed weekly assessments in place of major exams. The assessments consisted of three parts: a night before read-ahead focused on a new application, an in-class individual portion where students responded to short answer questions, and an in-class group portion where groups of 3-4 students provided team responses to similar questions after discussion, learning, and consensus.

As a result of what we learned that semester, the classrooms in our course, Discovery Learning Assessments, and the point structure of our course all look different.

We will discuss the impacts of Discovery Learning Assessments on our course. (Received September 25, 2018)