Assessment of Flipped/Inquiry-Based Learning Method Across Multi-Sections of College Algebra

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ABSTRACT

Inquiry-Based Learning (IBL) in a mathematics classroom has been shown to be very effective for engaging students in the understanding of course material. With IBL, students interact with peers and the instructor by asking questions and by doing mathematics in the classroom. Recently, the ‘flipped’ or inverted approach to teaching courses has received considerable attention, and in these flipped courses, students come to class prepared before the class meeting. The common denominator in the flipped and IBL methodologies is an emphasis on student engagement in the classroom.

The Principal Investigator implemented a method which uses both the flipped and the IBL methods (or the F/IBL method) in his ‘large’ College Algebra classroom during the past fall 2013 and spring 2014 semesters for managing and engaging students inside and outside the classroom setting. For the upcoming 2014/15 academic year, student-learned outcomes across multiple sections of College Algebra will be assessed using standardized tests to determine the effectiveness of this F/IBL approach.