

Equity Issues That (May) Arise in Active Learning Classrooms

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There is an overwhelming amount of evidence that the incorporation of active learning in the classroom benefits all students and can be especially beneficial for women and underrepresented populations. However, our work is not finished when it becomes an integral part of teaching and learning across the nation. Classroom settings that foster group interaction and collaboration may result in an environment that is even more undermining to underrepresented populations. In this poster we illustrate these potential issues that arose in an abstract algebra course.

Key Words: Equity, Abstract Algebra, Inquiry Oriented Learning

Research clearly indicates that active learning is beneficial for students in undergraduate mathematics courses, especially for students from traditionally underrepresented populations (Freeman et al, 2014; Laursen, Hassi, Kogan, & Weston, 2014). There are a number of evidence-based reasons that active learning classes may support a more equitable classroom. For instance, active learning classes often center around “low floor, high ceiling” tasks which allow for multiple entry points and for students to share their thinking (rather than only correct answers). This provides opportunities for students to see each other struggle and emphasizes the process of learning as well as allowing for a “broadened notion of competence” (Esmonde, 2009). In this poster we present on an Inquiry Oriented Abstract Algebra (IOAA) class that employed these strategies. In addition, the instructor was conscientious concerning equity issues and took active measures to create a classroom in which all students were valued contributors. Despite this, the teacher, a participant observer (TA), and an additional observer became acutely aware of differences in the class relating to participation and the nature of the contributions. In the poster, we use observer field notes and reflections to identify and describe issues related to equity that arose in the IOAA class, and consult video of the class for triangulation. We then consider reasons why such issues arose *despite* the active learning environment and conscientious teaching. Specifically we consider two questions: (1) Were there aspects of this execution of active learning that can account for the equity issues, such as shorter class periods, the teacher’s lack of experience with this material, the specific students, etc., or (2) Are there more general aspects of active learning classes that expose equity issues that may not be exposed by lecture?

References

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