

Teaching Approaches of Community College Mathematics Faculty:
Do Teaching Conceptions and Approaches Relate to Classroom Practices?

Preliminary Research Report

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Abstract

In this study we compare teaching approaches of 14 community college mathematics instructors with their classroom questioning and their classroom non-mathematical discursive interactions. The teaching approaches were drawn from interviews and the application of an analytical framework derived from the higher education literature. The questioning and the non-mathematical discursive interactions were characterized using transcripts of classroom observations and the application of an analytical framework derived from the mathematics education and higher education literature. From the interviews, we found a wide range of espoused teaching approaches, although the majority of instructors favored instructor-centered approaches. From the observations, we found that these instructors ask a large amount of questions, a sizable proportion of which generate opportunities for students to engage with authentic mathematical knowledge. Also, we found that these espoused teaching approaches are related to observed non-mathematical discursive interactions.

Keywords: classroom research, community college, mathematics teaching