



Colloquium Series



Reading between the lines:
Decomposing the practice of explaining
a procedure

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Abstract: Approximately 43% of students in the United States enroll in community colleges every year (Blair, Kirkman, & Maxwell, 2018). A large proportion of these students are placed into developmental mathematics, courses that aim to prepare students for college level mathematics. It has been documented that many developmental mathematics courses feature lecture as a main mode of instruction, incorporating and focusing on procedural knowledge (Cox, 2015; Grubb, 1999). This study considers decomposing explanations of a procedure (Herbst, 2013) as a way to analyze practice in order to consider ways to leverage such explanations as more meaningful for students. Findings suggest that certain features of explaining a procedure are more obvious than others, such as establishing and demonstrating the procedure, and that other important elements, such as connecting to prior knowledge and focusing the procedure, may not always be addressed. This, in turn, leads to an important conversation about how our teaching can inhibit equitable outcomes for students, especially those who are not able to draw connections across content. Considering this decomposition of practice may be particularly useful for future high school and community college teachers.

Monday November 19th, 1:05 - 1:50pm in 8-249