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MEASURING FIDELITY OF IMPLEMENTATION IN A LARGE-SCALE PROFESSIONAL DEVELOPMENT EFFICACY STUDY

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Fidelity of implementation is the essential link between professional development (PD) experiences and changes in outcomes. Yet, as a field we have few measures available to directly look at implementation. In this poster, we present our preliminary work measuring teachers' implementation of a research-based PD.

Background

We are currently conducting a large study evaluating the efficacy of a studio model professional development (Foreman, 2013) in a mid-sized urban school district working with 3rd-5th grade teachers. The PD focuses on a set of mathematical habits for students and teachers that promote high-level reasoning and productive discourse in mathematics classrooms. In order to measure teacher fidelity of implementation, we identified these habits along with cognitive demand (Stein & Smith, 1998) and connection to learning target as the *critical components* (O'Donnell, 2008) of the PD.

The Measures of Implementation

In order to measure implementation, we developed a classroom observation tool aligned with the critical components discussed in the previous section. We triangulated this measure with both PD facilitator ratings, and teacher self-reports. We piloted the tool in 22 teacher classrooms. We found that the observation tool implementation scores were consistent with facilitator ratings, but diverged from teacher self-reports.

We also looked at outside measures: Mathematical Quality of Instruction (MQI) (Hill, 2010) and student achievement on the Smarter Balanced assessment. We found that teachers who scored high on implementation observation tool had higher overall MQI scores and higher percentages of students passing the standardized assessment than medium and low implementers.

Discussion

In this poster session, we share a model for measuring fidelity of implementation. We explore the development of a tool targeting implementation, the triangulation with other measures, and the correspondence with outside variables. We hope to contribute a process that can be leveraged by other researchers evaluating the impact of PDs.

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