



HELPING STAFF DEVELOPERS: Improve Math Education for Students with Disabilities



Goal

Investigate the kinds of supports that are needed to develop the capacity of teacher leaders to effectively implement two curriculum-based professional development (PD) programs (Addressing Accessibility in Mathematics and Math for All) in their districts.

Phase 2 Study

We are conducting research on the implementation of the professional development programs by 23 pairs of facilitators in Colorado, Connecticut, Massachusetts, Michigan, New Jersey, and New York. The research is designed to examine the facilitators' fidelity and quality of program implementation, as well as the impact of the professional development programs on the participating teachers. A cross-case analysis will provide insights into the practices of district-based facilitators and the areas in which they need support.

The facilitators have access to four different types of supports: a training institute, an online support system, a case book, and a facilitators' guide. As part of the study, we are examining how facilitators use each support and are gathering feedback for improving its usefulness. Our findings will inform the development and revision of models and materials to support district-based facilitators in leading professional development on mathematics accessibility for teachers.



Initial Findings from the Phase 1 Pilot Study*

Implementation

In general, facilitators implemented the programs with relatively high levels of fidelity.

Types of Changes Facilitators Made

Changes Consistent with Program Goals

- Added connections to their district context
 - Examples: Facilitators brought in materials from their district's math curriculum. Others talked about how the PD fit into overall district or school priorities.
- Prepared materials to communicate central messages of the professional development
 - Example: facilitators created chart paper visuals that emphasized key points of the session and the overall PD.
- Changed the format of activities to increase participant interaction
 - Example: facilitators turned a presentation section into a jigsaw to make it more interactive
- Took advantage of opportunities to learn that spontaneously arose in discussions
 - Example: facilitators elaborated on the math content of activities

Changes Inconsistent with Program Goals

- Cut out key components of activities
- Rushed through material and/or discussions
- Shortened or skipped central activities

Additional Findings

Facilitators' Reasons for Making Changes

Several common themes emerged in facilitators' reasons for making changes:

- Time management (typically, running out of time)
- Lack of understanding of the program goals or why a specific goal was a priority
- Placing a higher priority on some activities than others, and thus choosing to shortchange the lower priority activities
- Responding to feedback from participants about prior activities
- Anticipating participants' (negative or uncomfortable) responses to upcoming activities

Facilitation Challenges and Areas for Support

Facilitators identified several common challenges:

- Identifying mathematical goals of lessons
- Analyzing mathematical demands of activities
- Facilitating collaborative lesson-planning
- Pacing
- Using technology for the PD
- Providing feedback on homework
- Facilitating discussions

Areas for Further Facilitator Support that Emerged from our Observations

- Facilitating discussions about videos
- Leading a group of teachers in a way that is comfortable to both facilitators and participants
- Managing time
- Understanding the learning goals of the professional development



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