

Learning and using the *Standards for Mathematical Practice*

- Learning goal: Learn and use the Standards for Mathematical Practice to guide instructional decisions
- Intended audience: preservice teachers
- Connections to CCSS-M: The Standards for Mathematical Practice are used as a rubric for appraising and designing instruction
- Materials needed (*including handouts that members could get from you via email*): Copies of the *Standards for Mathematical Practice* and students' summaries of them; Assignment sheet
- Resources used: Videos of mathematics teaching; video cameras

Description of Professional Learning Task

Over the course of the semester, preservice teachers view brief excerpts from mathematics classroom using the Standards for Mathematical Practice as a frame. Preservice teachers note where the teaching addresses different Standards, giving specifics of the instructional choices seen in the video.

The preservice teachers are also videotaping their own work teaching children mathematics, and their final course project is a multimedia presentation that shows their own efforts to work on the Standards for Mathematical Practice.

Launch

We spend a number of sessions revisiting the meaning of each Standard for Mathematical Practice and developing good short definitions for each one. We look for iconic examples in videotapes that capture the meaning of each of the Standards.

Orchestrating Teachers' Work on the Task

Preservice teachers work in small groups to find examples of teachers in video working on the Standards for Mathematical Practice.

They videotape one another teaching children mathematical activities, and then later work in a computer lab to create a multimedia presentation that shows their efforts for each of the Standards for Mathematical Practice.

Conclusion/Debriefing

Preservice teachers share their multimedia presentations with one another. The intention is that the Standards of Mathematical Practice are deeply ingrained and guide their future decisions in mathematics instruction.

Evidence of Teacher Learning

- The multimedia presentation is evidence of preservice teachers' abilities to perform mathematics instruction informed by the Standards for Mathematical Practice

Other Pertinent Information

- It's helpful and a worthwhile use of class time to spend 6+ hours of classtime supporting preservice teachers' creation of their multimedia presentations. That becomes a time for a lot of one-on-one discussion of the Standards for Mathematical Practice.

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