



About the SIM PD Study

The Simulated Instruction in Mathematics Professional Development Study, or [SIM PD Study](#), is a pilot of an exciting, new PD program being conducted by American Institutes for Research (AIR) with funding from the Charles and Lynn Schusterman Family Foundation. SIM PD offers opportunities for teachers in grades 4–7 to (a) learn about questioning strategies and facilitation of student discourse to promote engagement and understanding of math concepts; and (b) practice implementing those approaches using a mixed-reality classroom. Teachers use a computer to connect via an online video conference platform and a trained simulation specialist, who is not visible to the teacher, operates the avatars.



Key Findings

To examine implementation of the program and its impact on teachers' instruction, we randomly assigned 16 partnering schools to either participate in SIM PD or continue with business-as-usual professional learning during the 2018–19 school year. We collected documentation of SIM PD activities during implementation and video-based observations of math lessons from both groups of teachers.

The key findings of the PD study include the following:

- **There were large, positive improvements in instruction among teachers participating in the PD.** These improvements in instruction were sustained into the next school year after teachers participated in the PD.
- **The program was feasible to implement, and teachers had a positive experience.** Each school completed the 10 hours of PD, and coaches reported completing the planned segments within each PD activity. Teachers reported finding the program useful for reflecting on and improving their instruction.

While this study represents an initial pilot, these results suggest that the program offered a promising use of the mixed-reality classroom to support teacher development of questioning strategies and facilitation of student discourse.

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