

# Teacher Professional Development Leads to Positive Changes in Classroom Practice

## A Brief Summary of “How Responsive Is a Teacher’s Classroom Practice to Intervention? A Meta-Analysis of Randomized Field Studies”



### What is the aim of this review?

Districts allocate substantial funding for teacher professional learning programs. Research has examined the effects of these programs on classroom practice.

This systematic review and meta-analysis examined the extent to which teachers’ classroom practice changed through professional learning. The review summarized results from randomized field studies testing programs that aimed to improve classroom practice; it also examined whether the effects of the professional learning differed based on features of such learning or by characteristics of teachers included in the studies.



### What studies are included?

This review included studies that were randomized field studies of programs designed to improve teacher classroom practice in grades K–12. In total, 40 studies of programs offering professional development, training, and coaching for teachers were included in the review. Only studies conducted in English were included.

Teacher classroom practice was captured through classroom observations. The review examined the effects of professional learning on observed instruction, classroom environment, and overall effectiveness.



### What are the main findings of this review?

The review found that teachers’ classroom practice improved meaningfully because of professional learning. Teachers were able to demonstrate improvements quickly, with positive impacts observed even as professional learning was underway. However, the extent of improvement varied across studies.

**“...multiple dimensions of classroom practice improve meaningfully through classroom practice–directed intervention.”**

Improvements in teachers’ classroom practice were greater among professional learning programs with an individualized component, like coaching, compared to programs that did not include one. Professional learning that provided teachers hands-on, active learning opportunities or helped teachers learn how to use student data to inform their instruction also led to larger improvements.

However, longer professional learning programs were no more effective than shorter ones. Programs that lasted more than 20 hours did not improve classroom practice compared to programs that lasted fewer than 20 hours. In fact, the findings suggested larger improvements in classroom practice among programs lasting fewer than 26 weeks. Also,

there were no added benefits to classroom practice with professional learning that included remote training.

Teachers were able to improve their classroom practice through professional learning whether they had more or less years of teaching experience, and whether they taught elementary, middle, or high school students.



### **What do the findings in the review mean?**

Teacher professional learning can result in meaningful and positive changes in classroom practice. However, not all professional learning opportunities are alike, and inclusion of features such as coaching or active learning opportunities shows particular promise for instructional improvements. Further research will help us understand more about effective professional learning approaches that lead to better student outcomes.

#### **WHAT IS MOSAIC?**

The Methods of Synthesis and Integration Center (MOSAIC) is a center that supports methods innovation for projects that synthesize evidence across multiple studies to inform stakeholders and create evidence-based solutions in education, health, international development, social welfare, and the workforce.

#### **ABOUT THIS BRIEF**

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