Effective Teacher Professional Development

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Executive Summary

Teacher professional learning is of increasing interest as one way to support the increasingly complex skills students need to learn in preparation for further education and work in the 21st century. Sophisticated forms of teaching are needed to develop student competencies such as deep mastery of challenging content, critical thinking, complex problem-solving, effective communication and collaboration, and self-direction. In turn, effective professional development (PD) is needed to help teachers learn and refine the pedagogies required to teach these skills.

However, research has shown that many PD initiatives appear ineffective in supporting changes in teacher practices and student learning. Accordingly, we set out to discover the features of effective PD. This paper reviews 35 methodologically rigorous studies that have demonstrated a positive link between teacher professional development, teaching practices, and student outcomes. We identify the features of these approaches and offer rich descriptions of these models to inform those seeking to understand the nature of the initiatives.

Defining and Studying Effective Professional Development

We define effective professional development as structured professional learning that results in changes in teacher practices and improvements in student learning outcomes. To define features of effective PD, we reviewed studies meeting our methodological criteria (see Appendix A) that emerged from our extensive search of the literature over the last three decades. We coded each of the studies to identify the elements of effective PD models.

Using this methodology, we found seven widely shared features of effective professional development. Such professional development:

Is content focused: PD that focuses on teaching strategies associated with specific curriculum content supports teacher learning within teachers' classroom contexts. This element includes an intentional focus on discipline-specific curriculum development and pedagogies in areas such as mathematics, science, or literacy.

Incorporates active learning: Active learning engages teachers directly in designing and trying out teaching strategies, providing them an opportunity to engage in the same style of learning they are designing for their students. Such PD uses authentic artifacts, interactive activities, and other strategies to provide deeply embedded, highly contextualized professional learning. This approach moves away from traditional learning models and environments that are lecture based and have no direct connection to teachers' classrooms and students.

Supports collaboration: High-quality PD creates space for teachers to share ideas and collaborate in their learning, often in job-embedded contexts. By working collaboratively, teachers can create communities that positively change the culture and instruction of their entire grade level, department, school and/or district.

Uses models of effective practice: Curricular models and modeling of instruction provide teachers with a clear vision of what best practices look like. Teachers may view models that include lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching.

Provides coaching and expert support: Coaching and expert support involve the sharing of expertise about content and evidence-based practices, focused directly on teachers' individual needs.

Offers feedback and reflection: High-quality professional learning frequently provides built-in time for teachers to think about, receive input on, and make changes to their practice by facilitating reflection and soliciting feedback. Feedback and reflection both help teachers to thoughtfully move toward the expert visions of practice.

Is of sustained duration: Effective PD provides teachers with adequate time to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice.

Our research shows that effective professional learning incorporates most or all of these elements. We also examine professional learning communities (PLCs) as an example of a PD model that incorporates several of these effective elements and supports student learning gains. This collaborative and job-embedded PD can be a source of efficacy and confidence for teachers, and can result in widespread improvement within and beyond the school level.

Creating Conditions for Effective Professional Development: Opportunities and Challenges

Research has established that the educational system within which PD occurs has implications for its effectiveness. Specifically, conditions for teaching and learning both within schools and at the broader, system level can inhibit the effectiveness of PD. For example, inadequate resourcing for PD—including needed curriculum materials—frequently exacerbates inequities and hinders school improvement efforts. Failure to align policies toward a coherent set of practices is also a major impediment, as is a dysfunctional school culture. Implementing effective PD well also requires responsiveness to the needs of educators and learners and to the contexts in which teaching and learning will take place.

Implications for Policy and Practice

Examples of PD that have been successful in raising student achievement can help policymakers and practitioners better understand what quality teacher professional learning looks like. Policy can help support and incentivize the kind of evidence-based PD described here. For instance:

1. Policymakers could **adopt standards for professional development** to guide the design, evaluation, and funding of professional learning provided to educators. These standards might reflect the features of effective professional learning outlined in this report as well as standards for implementation.

2. Policymakers and administrators could **evaluate and redesign the use of time and school schedules** to increase opportunities for professional learning and collaboration, including participation in professional learning communities, peer coaching and observations across classrooms, and collaborative planning.

3. States, districts, and schools could regularly **conduct needs assessments** using data from staff surveys to identify areas of professional learning most needed and desired

by educators. Data from these sources can help ensure that professional learning is not disconnected from practice and supports the areas of knowledge and skills educators want to develop.

4. State and district administrators could **identify and develop expert teachers as mentors and coaches** to support learning in their particular area(s) of expertise for other educators.

5. States and districts can **integrate professional learning into the Every Student Succeeds Act (ESSA) school improvement initiatives**, such as efforts to implement new learning standards, use student data to inform instruction, improve student literacy, increase student access to advanced coursework, and create a positive and inclusive learning environment.

6. States and districts can **provide technology-facilitated opportunities for professional learning and coaching**, using funding available under Titles II and IV of ESSA to address the needs of rural communities and provide opportunities for intradistrict and intraschool collaboration.

7. Policymakers can **provide flexible funding and continuing education units** for learning opportunities that include sustained engagement in collaboration, mentoring, and coaching, as well as institutes, workshops, and seminars.

In the end, well-designed and implemented PD should be considered a essential component of a comprehensive system of teaching and learning that supports students to develop the knowledge, skills, and competencies they need to thrive in the 21st century. To ensure a coherent system that supports teachers across the entire professional continuum, professional learning should link to their experiences in preparation and induction, as well as to teaching standards and evaluation. It should also bridge to leadership opportunities to ensure a comprehensive system focused on the growth and development of teachers.

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