

Efficacy Through Professional Learning

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Improving teacher quality through professional development is an important strategy for raising student achievement. A 2007 study by Yoon, Duncan, and colleagues found that students in control groups would have improved their achievement by 21 percentile points if their teachers had received substantial professional development (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Darling-Hammond and Richardson (2009) provide insight into what has to occur in order for professional development experiences for teachers to impact student learning. In a synthesis of professional development research the scholars noted:

Studies of professional development lasting 14 or fewer hours showed no effects on student learning...The largest effects were found for programs offering between 30 and 100 hours [of professional development] spread out over 6-12 months. (p. 49).

Four Components of Effective Professional Development

The length of time spent on professional development for educators is only one consideration. For an impact on student learning to occur, teachers' transfer of knowledge from training into deep implementation in the classroom is essential. The following table (Table 1) includes key components of professional development that are essential in order to change teacher pedagogy.

Table 1: Components of Training

Components of Training	Explanation
Theoretical Understandings	Participants need a clear description of the strategy or practice accompanied by an understanding of the underlying theory and rationale for change in terms of student learning. In addition participants need to know when to use the new strategy or practice.
Demonstrations	Participants need to see modeling of the skill or practice. They need several demonstrations of the new strategy in different settings, content areas, and grade levels in order to develop a conceptual understanding.
Practice and Feedback	Participants need to <i>practice</i> the skill or strategy (8–10 weeks) accompanied by expert feedback in a safe and trusting environment.
On-the-Job Coaching	This level of application occurs in the participants' classrooms where they are provided the opportunity to apply their new knowledge in the context of their work with students. It is at this level that colleagues collaborate with one another about the implementation of this new learning as they plan and develop lessons and materials that will help them to more effectively implement the strategies and practices learned through the professional development experiences.

Although educators develop a high level of understanding with each component of training, their skill attainment is markedly higher with practice, feedback, and on-the-job coaching. The most striking difference is seen in the application level. It is only through on-the-job coaching that the skillful implementation of a new strategy occurs. The following table (Table 2) is based on a Joyce and Showers (1995) study focused on these key components of training.

Table 2: Joyce and Showers Study

Components of Training	Understanding	Skill Attainment	Application/High Level Use
Theory Understanding	85%	15%	5-10%
Demonstration	85%	18%	5-10%
Practice and Feedback	85%	80%	10-15%
On-the Job Coaching	90%	90%	80-90%

Professional Development Elements That Promote Student Learning

To add to the conversation on length of time and depth of training, Thomas Guskey (1997) suggests four common professional development elements shared by successful initiatives that have demonstrable evidence of improved student learning. These four elements are supported by other scholars as well:

1. **Focus on learners and learning.** Don't stray – learning is the principle goal.
2. **Concentrate on organizational and individual change.** Structure opportunities for teachers to speak publicly about their work (Lieberman, 1995). Principals should host conversations about curricular and instructional issues, encourage participation, establish professional respect, and set an environment that promotes learning (Fullan, Bennett, & Rolheiser-Bennett, 1990).
3. **Stay directed by a grand vision when making small changes.** Keep the suggested change or improvement focused. The greatest success as the result of professional development experiences is found when the change required calls for sustained effort but is not so all encompassing that the participant is overwhelmed and needs to implement coping strategies that can seriously distort the change (Crandall, Eiseman & Louis, 1986). By staying focused on the grand vision, all participants can “. . . view each step in terms of a single, unified goal” (Guskey, 1997, p. 39).
4. **Embed ongoing professional development in daily practices and procedures.** Professional development is a recurring process that permeates all activities, i.e., curriculum discussions, assessment decisions, and instructional activities. It is a continuous process that

involves everyone in the organization. When new programs are implemented well, they become embedded as a natural part of the professional’s practice and the organization’s structure” (Fullan & Miles, 1992; Miles & Louis, 1990; Guskey, 1997).

Guskey’s four elements compliment the components of training suggested by Joyce and Showers. In order to support the components of training that lead to deep classroom application, it is essential that collaborative opportunities be provided to educators as they further their learning about effective practice. This collaborative culture supports and sustains the system-wide focus on specific initiatives. In addition, in both the components of training and the four elements of professional development, the emphasis is on embedding the work in the educators’ daily experiences in classrooms, schools, and districts.

Evaluating Professional Development – Five Levels

Evaluations of professional development experiences must look at how to better understand the influence of professional development on teachers and document its impact on student learning. Guskey (2000, 2002) presents a protocol for evaluating professional development offerings that aligns with the National Staff Development Council’s standards. His model is based on five levels for gathering information arranged hierarchically from simple to complex:

1. Participants’ reactions: satisfaction with the experience
2. Participants’ learning: new knowledge and skills
3. Organization support and change: advocacy, support, accommodation, facilitation, and recognition
4. Participants’ use of new knowledge and skills: degree and quality of implementation
5. Student learning outcomes: cognitive, affective, and psychomotor

The following table (Table 3) further itemizes these five principles for evaluating professional development.

Table 3: Five Principles for Evaluating Professional Development

Evaluation Level	What is Measured or Assessed?	Components
1. Participants’ Reactions	Initial satisfaction with the experience	Three categories: <ul style="list-style-type: none"> ▪ Content Questions: Relevance, utility, timeliness of the topics ▪ Process Questions: Organization of the professional development experience ▪ Context Questions: The environment where the experience takes place
2. Participants’ Learning	New knowledge and skills of participants	Focus on accomplishing learning goals: <ul style="list-style-type: none"> ▪ Cognitive goals: Knowledge and understanding ▪ Psychomotor goals: Skills and behaviors ▪ Affective goals: Attitudes and beliefs

3. Organization Support & Change	The organization's advocacy, support, accommodation, facilitation, and recognition	<p>Aspects of organization support and change:</p> <ul style="list-style-type: none"> ▪ Organization policies ▪ Resources ▪ Protection from intrusions ▪ Openness to experimentation and alleviation of fears ▪ Collegial support ▪ Principal's leadership and support ▪ District level support ▪ Recognition of success ▪ Provision of time
4. Participants' Use of New Knowledge and Skills	Degree and quality of implementation	<p>Three major aspects of use:</p> <ul style="list-style-type: none"> ▪ Stages of concern: awareness, informational, personal, management, consequence, collaboration, refocusing ▪ Levels of use: Nonuse, orientation, preparation, mechanical, routine, refinement, integration, renewal ▪ Differences in practice: New information, impact of professional development
5. Student Learning Outcomes	Impact of professional development on student learning	<p>Student learning outcomes:</p> <ul style="list-style-type: none"> ▪ Cognitive: Performance & achievement ▪ Affective: Attitudes & dispositions ▪ Psychomotor: Skills & behaviors

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