Research About Long-Term Professional Development

Summary
The research on effective professional development (PD) has begun to create a consensus about the kinds of learning experiences that can impact teachers’ knowledge, practice, and ultimately student learning. In 2009, the National Staff Development Council (NSDC) issued a report (Wei et al, 2009) summarizing this research. Here are some of the findings that support the Keys to Literacy model of PD that emphasizes hands-on initial teacher training, school-wide implementation, follow-up PD, and the use of building coaches:

- **School-Based Coaching:** Coaches are used to tighten the connection between formal training and teachers’ application of instructional practices in their classrooms. Coaching models recognize that if PD is to take root in teachers’ practice, on-going and specific follow-up is necessary to help teachers incorporate new knowledge and skills into classroom practice both in the short and long term. Successful coaching should be offered by accomplished peers and should include ongoing classroom modeling, supportive critiques of practice, and specific observations. (p. 14)

- **Focus on Instructional Content:** PD is most useful when it focuses on concrete tasks of teaching rather than abstract discussions of teaching. PD affects teacher practice when it focuses on enhancing teachers’ knowledge of how to engage in specific instructional methods and how to teach specific kinds of content to students. It should also focus on student learning – providing an understanding of the skills that students will be expected to demonstrate. (p. 3)

- **Make it School-Wide:** PD is more effective when it is a coherent part of school reform plans rather than “one-shot” workshops. (p.5) When whole grade levels, schools or departments are involved, they provide a broader base of understanding and support. Teachers create a critical mass for improved instruction and serve as support groups for each other’s improved practice. (p. 6)

- **Provide Opportunities for Collaboration:** Effective PD highlights the importance of teacher collaboration and communities of practice in schools that focus on teachers’ own practices. Collective work in trusting environments provides a basis for inquiry and reflection into teachers’ own practice, allowing teachers to take risks, solve problems, and attend to dilemmas in their practice. (p. 6)

  Teachers learn best by working with their colleagues in professional learning communities, engaging in continuous dialog and examination of their practice and student performance to develop and enact more effective instructional practices. (p. 9)

- **Make the Training Active:** Opportunities for active learning are important, including modeling the sought after practices and constructing opportunities for teachers to practice and reflect on the new strategies. (p. 6)

- **PD Must Be Sustained and Intense:** Intensive PD sustained over a period of time is more effective than intermittent workshops with no follow-up mechanisms. This includes a substantial number of contact hours spread out over multiple months. (p. 7-8)

- **Provide Opportunities for Peer Observation:** Teachers’ instruction becomes more student-centered and focused on ensuring that students gain mastery of skills or the subject when they participate in peer observations. Teachers also have more opportunities to learn and a greater desire to continuously develop more effective practices. Videotapes of teaching can be used as an alternative to observation as a way to make aspects of teacher practice public and open to peer critique, learn new practices, and analyze aspects of teaching practice. (p. 12-13)
Defining Effective Professional Development

"Over the last two decades, a “new paradigm” for professional development has emerged from research that distinguishes powerful opportunities for teacher learning from the ineffective traditional one-day workshop model (Stein, Smith, and Silver, 1999). The research on effective professional development has begun to create a consensus about key principles in the design of learning experiences that can impact teachers’ knowledge and practices (e.g., Hawley & Valli, 1999; NSDC, 2001). While the various features of effective professional development are cited in the literature, there are several cross-cutting themes. This consensus includes lessons about both the content of and contexts for professional learning, as well as approaches to designing learning experiences." P. 3

Professional Development Content

Focus on the Concrete:

“The content of the professional development is most useful when it focuses on ‘concrete tasks of teaching, assessment, observation and reflection’ (Darling- Hammond & McLaughlin, 1995, p. 598), rather than abstract discussions of teaching. Studies find strong effects of professional development on practice when it focuses on enhancing teachers’ knowledge of how to engage in specific pedagogical skills and how to teach specific kinds of content to learners. Equally important is a focus on student learning, including analysis of the conceptual understanding and skills that students will be expected to demonstrate (Blank, de las Alas & Smith, 2007; Carpenter et al, 1989; Cohen & Hill, 2001; Lieberman & Wood, 2002; Merek & Methven, 1991; Saxe, Gearhart & Nasir, 2001; Wenglinsky, 2000). Taken together, these studies illustrate the importance of sustained, content-focused professional development for changing practice in ways that ultimately improve student learning." P. 3

Contexts for Learning

Part of School Reform:

“The literature also finds professional development more effective when it is not approached in isolation — for example, as the traditional “flavor of the month” or one- shot workshop — but as a coherent part of the school reform effort (Elmore & Burney, 1997; Cohen & Hill, 2001; Garet et al, 2001; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Supovitz, Mayer & Kahle, 2000). For substantial change to occur, curriculum, assessment, standards, and professional learning should be seamlessly linked in order to avoid dis-junctures between what teachers learn in professional development and what they are able to implement in their classrooms and schools.” P. 5

Collaboration With Peers:

“Research on effective professional development highlights the importance of collaborative and collegial learning environments and communities of practice in schools (Knapp, 2003; Darling-Hammond & McLaughlin, 1995). Putnam and Borko (2000) call for a situated approach to teacher learning which grounds professional development in teachers’ own practices. This approach does not limit opportunities to the classroom context, but does require ways for new knowledge and skills developed in professional development to be ‘intertwined with [teachers’] ongoing practice’ (p. 6). In a review of effective professional development programs in middle schools, Killion (1999) found that when teachers participate in professional learning with peers from their school site, they become ‘engaged in a powerful form of staff development that allows them to grapple with “real” issues related to the new content and instructional processes’ (p.180).” P. 6

School-Wide Collaboration and Implementation:

“Collaborative approaches have been found to be effective in promoting school change that extends beyond individual classrooms (Hord, 1997; Joyce & Calhoun, 1996; Louis, Marks & Kruse, 1996; McLaughlin & Talbert, 2001; Newman & Wehlage, 1997; Perez et al, 2007). When whole grade levels, schools or departments are involved, they provide a broader base of understanding and support at the school level. Teachers create a critical mass for improved instruction and serve as support groups for each other’s improved practice. Collective work in trusting environments provides a basis for inquiry and reflection into teachers’ own practice, allowing teachers to take risks, solve problems and attend to dilemmas in their practice (Ball & Cohen, 1999; Bryk, Camburn & Louis, 1999; Lieberman & Wood, 2002; Little, 1993).” P. 6

“As part of and in addition to formal professional development opportunities, the literature increasingly describes how teachers learn by working with their colleagues in professional learning communities (PLCs), engaging in continuous dialog and examination of their practice and student performance to develop and enact more effective instructional practices.
In ongoing opportunities for collegial work, teachers have an opportunity to learn about, try out and reflect upon new practices in their specific context, sharing their individual knowledge and expertise.” P. 9

“Studies augment our knowledge of how to create collaborative professional communities that are, as Westheimer (1999) notes, truly collective — challenging the whole school to change practices for student achievement — rather than merely liberal — maintaining individual teachers’ autonomy. The difference lies in a group’s ability to engage in truly joint work, which makes practice public and open to critique, and to develop a collective understanding of what constitutes sound practice. The success of professional community as a lever for teacher learning requires attention to the processes of making practice public and to the creation of structures which make this possible and desirable.” P. 14

**Design of Learning Experiences**

**Active Learning:**

“The design of professional development experiences must also address how teachers learn. Opportunities for active learning or “sense-making” activities are important (Snow-Renner & Lauer, 2005, p. 11). These often involve modeling the sought after practices and constructing opportunities for teachers to practice and reflect on the new strategies (Carpenter et al, 1989; Cohen & Hill, 2001; Garet et al, 2001; Desimone et al, 2002; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Saxe, Gearhart & Nasir, 2001; Supovitz, Mayer & Kahle, 2000). Active learning opportunities allow teachers to transform their teaching and not simply layer new strategies on top of the old.” P. 6

**Sustained and Intense PD:**

“Research on effective models of professional development suggests that intensive and sustained efforts over a period of time are more likely to be effective in improving instruction than intermittent workshops with no follow-up mechanisms — a design that is typically not powerful enough to produce the impact desired.” P. 58

“Professional development that is sustained and intense has a greater chance of transforming teaching practices and student learning (Cohen & Hill, 2001; Desimone et al, 2002; Garet et al, 2001; McGill-Franzen et al 1999; Supovitz, Mayer & Kahle, 2000, Weiss & Pasley, 2006). The traditional episodic and fragmented approach of traditional professional development does not afford the time necessary for learning that is “rigorous” and “cumulative” (Knapp, 2003). … Garet and colleagues (2001) found in a recent national survey… that professional development is more likely to be viewed by teachers as effective if it is sustained over time and offers substantial contact hours, allowing more opportunities to engage in active learning, enable meaningful collaboration and focus on content, all of which enhance the acquisition of knowledge and skills.” P. 7

While the duration of professional development is not the only variable that matters, there is evidence that teacher learning, and associated student learning, are associated with the number of contact hours. For example, two separate evaluations of professional development aimed at inquiry-based science teaching found that teachers who had 80 or more hours of science-related professional development during the previous year were significantly more likely to use reform-based teacher instruction than teachers who had experienced fewer hours (Corcoran, McVay, & Riordan, 2003; Supovitz & Turner, 2000). Furthermore, increased student achievement was associated with more intense participation in the professional development for teachers and more exposure to the resulting reform-based teacher instruction (Banilower, 2002; Corcoran, McVay, & Riordan, 2003).” P. 7-8

**Peer Observations of Practice:**

“A regular practice of teachers in professional communities is visiting and observing each others’ classrooms. Peers provide feedback and assistance to support individual learning, community improvement and ultimately student learning (Hord, 1997). Critical Friends Groups trained to use protocols designed by the National School Reform Faculty have successfully engaged in this type of professional learning. A study relying on observations and interviews of teachers using the protocols in 12 schools revealed noticeable changes in practice. Teachers’ instruction became more student-centered, with a focus on ensuring that students gained mastery of the subject as opposed to merely covering the material. In survey responses, teachers in these schools also reported having more opportunities to learn and a greater desire to continuously develop more effective practices than teachers not participating in Critical Friends Groups (Dunne, Nave & Lewis, 2000). Teachers can also use videotapes of teaching as a way to make aspects of their practice public and open to peer critique, learn new practices and pedagogical strategies, and analyze aspects of teaching practice that may be difficult to capture otherwise (Sherin, 2004). This kind of work in contexts like National Board Certification has been found to change teachers’ practices, their knowledge, and their effectiveness (Lustick & Sykes, 2006; Sato, Chung, & Darling-Hammond, 2008; Vandevenoort, Beardsley, & Berliner, 2004).” P. 12-13

**Analyzing Student Work and Student Data:**

“The focus of productive professional learning communities is often an examination of student work. Analyzing student work together allows teachers opportunities to develop a common understanding of what good work is, what common misunderstandings students have and what instructional strategies may or may not be working and for whom (Ball and Cohen, 1999; Dunne, Nave & Lewis, 2000; Little, 2003). A study investigating three high achieving schools that have continuously ‘beaten the odds’ on standardized tests found that teachers’ use of multiple student data sources to collectively reflect upon and improve instructional practices in team meetings contributed to increases in student achievement (Strahan,
School-Based Coaching

“One strategy that combines some features of traditional professional development with the need for learning about practice in practice is the use of school-based coaches. With an increased focus on improving literacy and mathematics instruction in elementary schools, many school districts and providers of professional development have used coaches to tighten the connection between the training they provide in external institutes and teachers’ application of the strategies in their classrooms. Coaching models recognize that if professional development is to take root in teachers’ practice, on-going and specific follow-up is necessary to help teachers incorporate new knowledge and skills into classroom practice both in the short and long term (Guskey, 2000; Garet et al, 2001). Russo (2004) describes school-based coaching in this way:

School-based coaching generally involves experts in a particular subject area or set of teaching strategies working closely with small groups of teachers to improve classroom practice and, ultimately, student achievement. In some cases coaches work full-time at an individual school or district; in others they work with a variety of schools throughout the year. Most are former classroom teachers, and some keep part-time classroom duties while they coach (p.1).

Many experts note that successful coaching should be offered by accomplished peers and should include ‘ongoing classroom modeling, supportive critiques of practice, and specific observations’ (Poglinco et al., 2003, p.1; see also Showers & Joyce, 1996).” P. 14

“Several evaluations have suggested that there is a link between coaching models of professional development linked to reforms in literacy instruction. For example, Norton (2001) cites impressive achievement gains of students whose school participated in the Alabama Reading Initiative, which utilized a school-based coaching model following an intensive 2-week summer institute to provide ongoing support to teachers implementing the new literacy approach. More recently, Blachowicz, Obrochta,and Fogelberg (2005) reported that as a result of a differentiated literacy program and other interventions that utilized a coaching model, the percentage of students meeting benchmark standards in an Illinois district increased markedly. In a study by the Foundation for California Early Literacy Learning, teachers reported that the coaching they received had a positive effect on student achievement (Schwartz & McCarthy, 2003). Likewise, Lyons and Pinnell (2001) linked achievement gains in reading and writing to literacy coaching.” P. 15

The Inadequacy of Current Professional Development: Conclusions

“What we found from our analyses is that, while the United States has made some progress in certain areas such as the availability of induction and mentoring programs for beginning teachers and an increased emphasis on building teachers’ content knowledge, the structures and supports that are needed to sustain teacher learning and change and to foster job-embedded professional development in collegial environments falls short. The time and opportunities that are needed for intense, sustained professional development with regular follow-up and reinforcement are simply not in place in most contexts, as evidenced by the short duration of most professional development activities. The low ratings of the usefulness of most professional development activities and teachers’ desire for further professional development on the content they teach, classroom management, teaching special needs students, and other topics, are indicators of the insufficiency of the professional development infrastructure now in place in most states and communities. Comparisons of American teachers’ participation in professional development with that of teachers in the international community also demonstrate that the United States is substantially behind other OECD nations in providing the kinds of powerful professional learning opportunities that are more likely to build their capacity and have significant impacts on student learning. While American teachers participate in workshops and short-term professional development events at similar levels as that of OECD nations, the U.S. is far behind in providing public school teachers with opportunities to participate in extended learning opportunities and productive collaborative communities in which they conduct research on education-related topics, work together on issues of instruction, learn from one another through mentoring or peer coaching, and collectively guide curriculum, assessment, and professional learning decisions.” P. 61-62


(see full report for embedded citations)