Literature Review on Professional Development for Teachers

Christie Blazer, Senior Research Analyst
Research Services
Office of Accountability and Systemwide Performance
Miami-Dade County Public Schools
1500 Biscayne Boulevard, Suite 225
Miami, Florida 33132

December 2005

INTRODUCTION

Professional development refers to ongoing learning opportunities that are available to teachers through their school or school district (National Commission on Teaching and America's Future, 1996). Effective professional development is defined as professional development that produces changes in teachers' instructional practice, which can be linked to improvements in student achievement (Odden et al., 2002). The primary purpose of professional development is to prepare and support teachers by giving them the knowledge and skills they need to help all students achieve high standards of learning and development (U.S. Department of Education, 1996).

Teachers' professional development is an essential component of comprehensive school reform. Teachers are at the center of educational reform because they must make every effort to ensure that their students meet the high standards that districts and states have adopted (Garet et al., 2001). They have the most direct contact with students and considerable control over what is taught and the learning climate (King and Newmann, 2000). The American Federation of Teachers (2002) has stated that "the nation can adopt rigorous standards, set forth a visionary scenario, compile the best research about how students learn, change textbooks and assessment, promote teaching strategies that have been successful with a wide range of students, and change all the other elements involved in systemic reform - but without professional development, school reform and improved achievement for all students will not happen."

Evidence continues to accumulate showing that student performance is influenced by teachers' high quality professional development and that the effects of increased teacher knowledge are observed across subject matter fields (Darling-Hammond, 1999). The American Federation of Teachers (2002) has concluded that high quality professional development is essential to the nation's goal of high standards of learning for every child and that the most important investment school districts can make is to ensure that teachers continue to learn. The National Commission on Teaching and America's Future (1996) reported that investments in teacher knowledge and skills result in greater increases in student achievement than other uses of the education dollar. The time teachers spend with other knowledgeable educators, engaging in teaching and learning, is just as important to students' learning as the time teachers spend teaching students.

> *According to the American Federation of Teachers, providing teachers with continuing high quality professional development is the most important investment school districts can make.*

In the past, professional development consisted of teachers attending one or two workshops on the latest instructional practices. Participants listened passively to outside experts and were then encouraged to apply the strategies in their own classrooms. New professional development programs were introduced with no attempt to connect them to past training (DuFour, 1997). Teachers were provided with few, if any, opportunities for follow-up activities and rarely applied their new knowledge or skills when they returned to their classrooms (Joyce and Showers, 2002; Black, 1998).

Today, challenging student performance standards, paired with rigorous accountability policies, call for significant changes in professional development practices. These changes cannot be accomplished by sending teachers to the short-term professional development efforts of the past. Professional development must be more than training in new knowledge or instructional procedures. It must enable teachers to move to the next level of expertise and enhance their ability to make changes that will result in increased student performance (French, 1997). This professional growth will only occur if teachers are provided with expanded learning opportunities, ample peer support, and extended time to practice, reflect, critique, and then practice again (Cohen and Hill, 1998).

Professional development programs should support curricular and instructional change that enhances student learning in the personal, social, and academic domains. Professional development must have a significant impact on what is taught, how it is taught, and the social climate of the school so that students' gains in knowledge and skill and their ability to learn increase (Joyce and Showers, 2002b).

WHY PROFESSIONAL DEVELOPMENT PROGRAMS DON'T SUCCEED

Researchers and practitioners have concluded that when professional development programs are not effective, it is usually due to one or more of the following factors:

- Programs are characterized by a one size fits all approach with an inflexible curriculum that ignores teachers' individual learning needs. When school districts mandate that every teacher in the system be "staff developed" en masse, it is likely that many teachers will have little interest in the training topic (Peery, 2002; Redding and Kamm, 1999; Dunn and Dunn, 1998).

- Training is a passive experience. Participation is limited, with teachers having little or no time to meet with their colleagues to discuss how to apply the strategies being taught (Peery, 2002; Black, 1998). Teachers are often expected to change their classroom practice after sitting through an awareness-level program. Studies conducted by the National Center for Education Statistics (2001) found that only 12 to 27 percent of teachers felt their professional development activities significantly improved their teaching.

  Only 12 to 27 percent of teachers believe their professional development activities significantly improve their classroom teaching.

- Professional development programs are fragmented, with teachers receiving bits and pieces of training on the latest topics. Teachers are then asked to implement numerous strategies in their classrooms at once. Schools often try to improve everything at the same time. Instead of focusing on a few critical areas that will have the biggest impact on student learning, their school improvement plans specify goals for improvement in every area (student achievement in all content areas, student behavior, school climate, and family involvement, for example) (Redding and Kamm, 1999; Black, 1998; Dunn and Dunn, 1998).

- Teachers see no connection between their professional development and everyday classroom needs (Murphy, 2000). Training is not related to school improvement efforts or to real classrooms and students (Black, 1998). A survey conducted by the National Center for Education Statistics (2001) found that only 18 percent of teachers felt the training they received was connected "to a great extent" to other school improvement activities at their school.

  Only 18 percent of teachers believe their professional development is related "to a great extent" to other school improvement efforts.

- Teachers have no input into the planning process, with training topics selected in a "top down" manner by district or school level administrators. Teachers' lack of involvement often results in delivery of training that is not related to their interests or professional needs (Black, 1998; Dunn and Dunn, 1998).

- There are no plans for follow-up activities during the school year. Even when teachers become enthusiastic about a new approach, studies have found that new concepts and strategies are rarely transferred to classroom practice when follow-up support and assistance are not provided (Joyce and Showers, 2002; Peery, 2002; Black, 1998; Dunn and Dunn, 1998).

- Schools contract exclusively with external consultants to provide training. When these consultants lack local knowledge, the entire training program lacks credibility (Peery, 2002; Black, 1998).

- The school principal does not provide the necessary leadership. Principals must be involved on a daily basis in making professional development work and must be as engaged in teachers' ongoing learning as teachers are themselves (Alvarado, 1998).

> *Principals must provide strong leadership in order for professional development programs to succeed.*

HOW PROFESSIONAL DEVELOPMENT PROGRAMS CAN SUCCEED

National Staff Development Council Standards for Staff Development

The National Staff Development Council (NSDC) states that effective professional development programs are results driven, standards-based, and job embedded. In 2001, the council published their revised standards for staff development (National Staff Development Council, 2001). These standards provide direction for designing a professional development program that ensures teachers acquire the necessary knowledge and skills and the ability to transfer the strategies learned to their classrooms. The standards are divided into three areas: content, process, and context. The planning, design, and implementation of professional development programs must take the standards from all three areas into account in order to have a positive impact on student learning. A summary of the NSDC's standards for professional development follows.

Content Standards. These standards focus on the actual content of the training program and include issues such as which program will be most successful and who will be an effective facilitator. Professional development that improves the learning of all students:

1. Prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments, and hold high expectations for their academic achievement.

2. Deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessment.

3. Provides educators with the knowledge and skills to involve families and other stakeholders appropriately.

Process Standards. Staff developers must recognize that the professional development process is as important as the content of the program. Professional development that improves the learning of all students:

1. Uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.

2. Uses multiple sources of information to guide improvement and demonstrate its impact.

3. Prepares educators to apply research to decision making.

4. Uses learning strategies appropriate to the intended goal.

5.   Applies knowledge about human learning and change.

6.   Provides educators with the knowledge and skills to collaborate.

Context Standards. Context standards emphasize the influence of the organization, specifically the school's culture and climate, on individual learning. Professional development that improves the learning of all students:

1.   Organizes teachers into learning communities whose goals are aligned with those of the school and district.

2.   Requires school and district leaders to guide continuous instructional improvement.

3.   Requires resources to support adult learning and collaboration.

The NSDC recommends that 25 percent of teachers' work time be devoted to professional learning and collaboration with colleagues. A survey of NSDC members, however, found that no school districts had yet reached that level of commitment. Excluding planning time, 81 percent of the teachers said that less than five percent of their work was devoted to professional learning. The NSDC suggests that schools begin by identifying three to four hours per week for professional learning and collaboration with peers, then experimenting with ways to extend that time over the next two or three years (Richardson, 2002).

> *The majority of teachers report that less than five percent of their time is spent on professional learning.*

Florida Department of Education Standards for Professional Development

The *School Community Professional Development Act*, Florida Statute 1012.98, requires districts to develop and submit professional development systems for approval by the Florida Department of Education (State of Florida, 2004). The statute specifies the content and delivery of professional development for teachers in Florida's public schools and creates a strong linkage between professional development and improvements in students' performance.

Each school district in the state is required to develop a professional development program in consultation with teachers, college and university faculty members, and community agencies. Districts are required to identify performance indicators that will be improved through teacher participation in professional development programs and activities. Professional development activities must provide continuous support for all educational professionals; increase educators' success in guiding student learning and development; and assist the school community in providing stimulating, research-based activities that enable students to achieve at the highest levels.

District professional development activities are guided by the Florida Professional Development Evaluation System. This evaluation model assesses the local planning, delivery, follow-up, and evaluation of professional development activities according to standards modeled after the National Staff Development Council's professional development standards, as well as Florida Statutory requirements. The Florida Professional Development Evaluation System Protocol's standards allow educators to identify and recognize best practices as well as to identify local professional development systems that are in need of improvement.

The interested reader can access the Florida Department of Education's Web site (www.firn.edu/doe/profdev/inserv.htm) for a complete listing of the state's 66 professional standards, as well as professional development resources that include a listing of relevant documents and web sites,

information on promising and model professional development programs, and an evaluation preparation guide.

CHARACTERISTICS OF EFFECTIVE PROFESSIONAL DEVELOPMENT PROGRAMS

The first goal of professional development is to design training that enables staff to learn and transfer knowledge and skills to their classroom practice. No one specific type of professional development has been found to be most effective (American Federation of Teachers, 2002). Research has shown, however, that successful professional development programs have clear, specific goals and objectives; engage teachers intellectually; actively involve participants; consist of multiple sessions over an extended period of time; allow teachers to learn with and from their colleagues; and provide the opportunity for teachers to practice and adopt new strategies (Joyce and Showers, 2002b; French, 1997; Licklider, 1997).

Professional development planners must ask the following questions before designing a training program (Joyce and Showers, 2002b):

- For whom is the training intended and what is expected to result from the training?

- Does the training content represent new learning or is it an attempt to refine existing knowledge and skills?

- Are follow-up activities built into schools as a permanent structure or must they be planned and delivered during training?

Designing training involves identifying the desired outcomes and then selecting training strategies that will achieve those outcomes. Types of outcomes include (Joyce and Showers, 2002b):

- Knowledge or awareness of educational theories and practices, new curricula, or academic content.

- Positive change in attitudes toward self, students, and academic content.

- Development of skills.

- Transfer of training that generates consistent and appropriate use of new skills and strategies in classroom instruction.

Training components that will help to achieve the desired outcomes include (Joyce and Showers, 2002b):

- Knowledge. The exploration of theory or rationale through discussions, readings, and lectures is necessary for an understanding of the concepts behind a skill or strategy.

- Demonstration or modeling of skills. To facilitate learning, skills can be demonstrated in settings that simulate the classroom, conducted live in training sessions, or mediated through videotape.

- Practice of skills under simulated conditions. Practicing skills with other teachers (peer teaching) enables trainees to profit from each other's ideas and skills and identify mistakes in a safe environment. The amount of practice a teacher will need depends on the complexity of

the skill being learned. Simpler skills require less practice than those that are more complex or different from teachers' current repertoire.

- <u>Peer coaching</u>. Peer coaching provides support for teachers as they master new skills. The collaborative work of teachers to solve the problems or questions that arise should begin during training and continue in the workplace.

Professional development that is based on a fixed set of rules about what teachers should say or do and that presents them with highly detailed lessons and activities does not prepare them to deal with the complex and unexpected classroom situations they will encounter or the varied backgrounds of their students (American Federation of Teachers, 2002; French, 1997).

Teachers need to see that what they learn in training sessions produces results in the classroom (French, 1997). Some professional development outcomes are easier to achieve than others because they are closer to teachers' existing practices. In general, newer or more complex outcomes are harder to achieve and require more training before teachers can implement the new strategies in their classrooms. Professional development planners must gauge the difficulty level of the training program to help plan the duration and intensity of the training (Joyce and Showers, 2002).

Professional development should be aligned with other components of the educational system, such as student performance standards, teacher evaluation, and school and district goals (Odden et al., 2002). Priorities should be limited to three or four major efforts every four years so teachers don't see the training as just a fad that will come and go and are

Limiting the number of professional development priorities ensures that teachers are provided with the time and support they need to effectively implement new strategies.

provided with the necessary support to introduce new ideas and strategies into classroom practice (American Federation of Teachers, 2002; Goldberg, 2002; U.S. Department of Education, 1996).

DuFour (1998) has suggested that educators consider the following questions before designing and implementing a professional development program:

- Does the training advance the vision and values of the school or district?

- Is the content of the professional development program based on research?

- Does the leadership of the school or district communicate the importance of training? For example, do leaders stress the importance of professional development for all teachers, model a willingness to learn and improve, and provide the necessary follow-up and support?

- Will the training provide teachers with ongoing support and time for reflection, collaboration, and experimentation?

- Are the intended results of the training clearly specified? Do the results address the impact on student achievement and on district or school goals?

- Are processes in place that require staff to evaluate the training program and provide information so that the program can be continually refined?

The following characteristics and activities have been identified by researchers and practitioners as components of effective professional development programs:

Identify Professional Development Needs

Staff development councils should be established at both the school and district levels to coordinate professional development efforts, align content with identified needs, discuss professional development issues, and make recommendations on the types of professional development activities that should be implemented. School level councils should include a representative sample of teachers and the school principal. District level councils should include a representative sample of teachers and principals, as well as central office staff and, in some cases, board members. In large districts, forming councils from clusters of schools is usually more practical than forming one large council that represents hundreds of schools (Joyce and Showers, 2002b).

Carefully designed needs assessments provide valuable information and are considered essential in the planning of successful professional development programs. Planners of these programs must first identify potential weaknesses in the instructional programs (at the district, school, and classroom levels) and then develop training strategies that will help to improve them. When conducting a needs assessment, educators must remember that needs change over time. Strategies and ideas gain and lose popularity, teachers' professional knowledge grows, population demographics change, and students' learning needs vary (Guskey, 1999).

The selection of professional development content should be dictated by the perceived need for change. These needs vary greatly among schools. Options for professional development content include (Joyce and Showers, 2002b):

- Renewal within a curriculum area (finding one area of the curriculum to target for improvement).

- Teaching and learning strategies (selecting a strategy, such as cooperative learning or mnemonics, to implement schoolwide).

- Technology (training staff on the use of computers, videotape, broadcast television, or the Internet).

- Attending to special populations (implementing population-oriented initiatives that focus on students with special needs or students of varying cultural backgrounds, for example).

Involve Teachers in Professional Development Planning

Studies have found that learning is more likely to occur when teachers have influence over the substance and process of professional development. Licklider (1997) reported that increasing teachers' control of the program's goals and objectives enhanced the learning environment. Involving teachers in the planning of their professional development gives them a sense of ownership and an opportunity to connect their training to

Two thirds of teachers say they have little input into the planning of their own professional development.

specific situations in their schools. Yet, conventional professional development is often dictated by school, district, or state authorities without significant input from teachers (King and Newmann, 2000). A study conducted by the National Foundation for the Improvement of Education found that two thirds of all teachers felt they had little input into what they learned on the job (French, 1997).

Professional development should be designed by teachers in cooperation with experts in the field. It is important that teachers be centrally involved in formulating professional development plans and that they "buy in" to the process. Teacher representation should be great enough to exert influence, but the process must incorporate knowledge that is evolving outside of the school (American Federation of Teachers, 2002). Research shows that well-planned, carefully organized collaboration

between district level personnel (who have a broader perspective of problems) and site-based educators (who are aware of contextual characteristics) is essential to optimize the effectiveness of professional development (Guskey, 1996).

Align Professional Development with Student Content Standards and Curriculum

Effective professional development begins with a clear sense of what students need to learn and be able to do and includes a thorough analysis of where students are in relation to where we want them to be (Sparks, 2002; Killion, 1999). Programs must be matched to school and district instructional practices and based on standards for student learning, teaching, and professional development (Sparks, 1997). Training and activities that are disconnected from school or district goals will not produce results for students or provide the intellectually challenging learning experiences educators need (Killion, 1999b).

> *Professional development must be closely aligned with school and district goals to produce changes in teachers' instructional practice and improve student achievement.*

Although research has found that the most effective professional development is aligned to the standards and curriculum teachers use, there is often little connection between the performance that districts or states expect of students and the professional development curriculum provided to teachers (American Federation of Teachers, 2002; Killion, 1999b; U.S. Department of Education, 1996). Planners of professional development programs should study the curriculum and review district, state, and national standards. Professional development should help teachers understand what standards mean; how professional development strategies can be implemented to attain local, state, and national standards; how to determine if students meet a standard; and the difference between standards-based and other forms of instruction (American Federation of Teachers, 2002).

Broaden Teachers' Content Knowledge and Pedagogic Foundation

Studies have found that the enhancement of teachers' content knowledge and pedagogic foundation are critical components of successful professional development programs. Professional development must help teachers gain a thorough understanding of the content they teach, effective instructional strategies for teaching the content, the ways students learn the content, and the problems students typically have learning the content (Guskey, 2003; Odden et al., 2002).

Professional development should help teachers understand the best ways to represent the ideas of specific disciplines; the most powerful illustrations and analogies for representing a concept; what makes learning specific things in a content area easy or difficult; the kinds of questions that deepen understanding; and the most effective strategies to address the misconceptions that commonly arise at particular developmental levels (American Federation of Teachers, 2002).

Kennedy (2000) found that successful professional development programs give teachers a greater understanding of how students think and learn and allow teachers to develop their own practices, rather than prescribing routines for them to follow. Kennedy concluded that the most effective programs provide teachers with the least specific information about what to do in the classroom and the most specific information about the content they will be teaching and how students learn that content.

In addition to the development of knowledge, skills, and strategies, training activities should teach participants how to transfer the knowledge and skills they acquired to their classroom practice. Educators must understand that the transfer of training is a task that is separate from the acquisition of knowledge and skills (Joyce and Showers, 2002).

Pay Attention to Individual Needs

Professional development must address the diverse interests of all teachers. Delivering the same instruction to everyone ignores the individual needs of teachers in different fields with varying levels of experience. Generic training sessions are usually dismissed by teachers as boring and irrelevant because they believe the topics covered don't apply to them (Wineburg and Grossman, 1998; French, 1997).

> *When teachers are staff developed en masse, they usually dismiss the sessions as boring and irrelevant because they can't relate the training to their own professional development needs.*

Professional development programs should incorporate a variety of learning strategies and not rely on a single training method. Professional development planners must recognize that different people learn in different ways. A variety of activities allows teachers with diverse learning styles to examine the same concept in different ways and maximizes the number of participants who will understand and use the new strategies (Roy, 2005; Richardson, 1998). Professional development should include training in both theory and practice, provide opportunities for collaborative problem solving, and include a variety of activities, such as readings, role playing of techniques, watching videotapes, live modeling, guest lectures, and visits to other classrooms and schools with similar programs (Roy, 2005; Goldberg, 2002; Rice, 2001; Black, 1998; Licklider, 1997).

In professional development, it's important to address the questions participants are asking when they are asking them and to pay attention to participants' needs for information, assistance, and support. The Concerns-Based Adoption Model (CBAM) is based on the principle that change is a process, not an event. Most people don't transform their behaviors and practices as a result of a single event, no matter how powerful. Developing a new classroom practice takes time, support, and determination. CBAM provides a framework for understanding participants' concerns and designing interventions that resolve the issues expressed at each stage. Using the CBAM framework, professional development becomes a dialogue between the facilitator and participants, not a monologue in which professional development is delivered with no regard for participants' concerns. The facilitator is aware of teachers' needs, provides them with individualized support, and designs each step in the training process to support and sustain change (Hall and Hord, 2001).

As Loucks-Horsley (1996) explains, the CBAM framework recognizes that the questions teachers ask evolve over time. Early in the training process, questions tend to be more self-oriented. (What new skills and knowledge will be required of me? Will I be able to learn these new skills? Will the materials I need be available?) If these concerns are not addressed, teachers may not progress to the next stage of concern. Once self-oriented issues are resolved, teachers begin to ask task-oriented questions. (How will I do it? How will I use the materials efficiently?) Finally, when self-oriented and task-oriented concerns are resolved, teachers are able to focus their questions on the impact the training will have on their classroom practice. (Is this strategy working for students? Is there a strategy that will work better?)

Select Effective Facilitators

Many professional development programs rely exclusively on outside experts who don't match the training to individual school or district needs (King and Newmann, 2000). When using external facilitators, it is important that they be familiar with local knowledge and issues (Peery, 2002; Black, 1998). Studies have found that, although external experts play an important role in professional development, effective programs also use in-house experts to enhance the delivery of training (Richardson, 1998).

> *Effective professional development programs use both outside experts, who have extensive knowledge of the latest concepts and strategies, and in-house experts, who can match training to specific school or district needs.*

Whether the facilitator is from an internal or external source, he or she must have credibility with teachers. Redding and Kamm (1999) found that when teachers participated in the selection of the facilitator, it gave the facilitator instant credibility and resulted in higher levels of teacher commitment. This commitment enhanced the effectiveness of the facilitator. Redding and Kamm also found that teaching experience in the discipline and at or near the grade level of the participants helped to establish the facilitator's credibility.

Effective professional development facilitators must assume a broad role and also function as trainers, assessors, and coaches (Loucks-Horsley, 1996). Facilitators should help teachers become competent and self-reliant so they can apply their new knowledge in their own classrooms. As teachers assume greater responsibility for their training, the role of the facilitator should gradually shift from instructor to participant. Facilitators can help teachers become self-directed learners by asking and expecting them to make increasingly difficult decisions over time; using interactive techniques instead of lectures; and encouraging them to form communication networks (Black, 1998; Licklider, 1997).

Embed Professional Development in the School Day

Job embedded learning is learning by doing, reflecting on the experience, and then sharing insights with colleagues. Activities such as coaching and study groups are examples of job embedded learning, but informal interactions within a school can also promote job embedded learning (Nevada Professional Development Website, 2004). Professional development must be integrated into teachers' work day and include activities such as coaching, self study, group study, inquiry into practice, and consultation with peers and supervisors (U.S. Department of Education, 1996).

Research shows that a significant amount of professional learning takes place as teachers engage in their daily activities and face the challenges of their work (Odden et al., 2002; Sparks, 2002). When professional development is important enough for school districts to integrate it into the normal work day, it is perceived as more valued and connected to teachers' work than when activities are arranged outside of the school day (American Federation of Teachers, 2002). One-shot workshops, conferences, and inservice days that have no connection to the real work of schools reinforce the misperception that adult learning is best accomplished outside of the school (DuFour, 1997).

> *Teachers perceive professional development is more important when it is integrated into the school day, instead of arranged outside of their normal working hours.*

Provide Sufficient Time for Professional Development

In a study conducted by Garet et al. (2001), teachers reported that sustained and intensive professional development was more likely to have an impact on their classroom practice than shorter forms of professional development. Teachers indicated that programs of longer duration provided them with more opportunities for in-depth discussions, trying new ideas, and obtaining feedback. French (1997) concluded that as many as 50 hours of instruction, practice, and coaching may be required before teachers feel comfortable implementing new strategies.

> *Teachers may need as many as 50 hours of follow-up support and activities before they feel comfortable implementing new strategies in their classrooms.*

Teachers rarely have time in their busy day to engage in professional development. Finding time for professional development and follow-up activities is essential because teachers have few of the opportunities for growth that are available in other professions. For example, teachers rarely have the chance to work with or even observe other teachers and they can't lean over their desks to ask for assistance from a coworker (French, 1997).

A variety of school restructuring designs have been suggested to provide teachers with more professional development time, including increasing the flexibility of teachers' schedules, extending school days, and adding days to the school calendar for professional development activities; however, simply providing more time for professional development does not guarantee greater teacher effectiveness. If additional time for professional development is to produce significant improvements, the extra time must be well organized and carefully structured to provide teachers with opportunities to participate in truly effective training programs and follow-up activities (Guskey, 1999).

Promote Collegiality and Collaborative Exchange

Professional development programs do not succeed when teachers are passive recipients of information, instead of active participants (French, 1997). Educators at all levels value opportunities to work together, reflect on their practices, exchange ideas, and share strategies and expertise (Supovitz, 2002). For collaboration to be beneficial it must be structured and purposeful, with efforts guided by the goal of improved student achievement. Without this structure, practitioners have found that collaborative efforts can lead to conflicts between teachers over professional beliefs and practices (Achinstein, 2002).

Research suggests that professional development should be organized around groups of teachers from the same school, department, or grade level. Teachers who work together are more likely to have the opportunity to discuss students' needs across classes and grade levels and exchange ideas about concepts, skills, and problems that arise in their teaching experiences. They are also more likely to share common curriculum materials, course offerings, and assessment requirements (Singh and McMillan, 2002; Odden et al., 2002; Garet et al., 2001).

Reflect Best Available Research and Practices

Successful professional development programs use the best available research and practices to shape their content. Programs should be implemented on the basis of sound research, not just because an idea is popular. Many professional development programs are more opinion-based than research-based. Educators often believe that if it's new, it must be better. When one approach or program doesn't produce the promised

> *Professional development programs should be selected based on research that demonstrates their ability to improve student performance.*

improvement, they find a new program to take its place (Guskey, 1999; Joyce and Belitzky, 1997). Before implementing a professional development program, planners should obtain evidence of its effectiveness in improving student performance and thoroughly examine its validity and relevance to their own setting. Guskey (1999) suggests that professional development planners examine the history of professional development programs. If an idea or approach didn't work in the past or at other schools or districts, it probably won't work now in the current setting.

Commit to Ongoing, Long-Term Professional Development

Professional development must accomplish the same thing for teachers that educators try to achieve for students: a lifetime of ongoing learning (U.S. Department of Education, 1996). Professional development is a process, not an event, and must be perceived by teachers as a career-long learning continuum. Teachers' expertise grows over time as they use new ideas and strategies in their classrooms; however, there must be a realistic view of how much change any teacher can implement at one

> *Professional development must accomplish the same thing for teachers that educators try to achieve for students: a lifetime of ongoing learning.*

time, given the amount of planning time and the level of support required to introduce new ideas and strategies into classroom practice (American Federation of Teachers, 2002; Garet et al., 2001; U.S. Department of Education, 1996).

Implement School-Focused Professional Development Programs

Professional development is most successful when it focuses on goals for student learning that are based on the unique strengths and challenges of individual schools or districts (Sparks, 1997). Each school or district must determine what type of training it will most benefit from and then design its professional development program according to its specific needs (Black, 1998; Richardson, 1998).

In a study conducted by Singh and McMillan (2002), teachers indicated that school level professional development sessions were more relevant and practical than the district, state, or national sessions they attended. When teachers see training as irrelevant to student learning in their specific school setting, they are less likely to apply the new knowledge and skills to their classroom practice (King and Newmann, 2000).

A major factor in any professional development program's effectiveness is school context, or the beliefs, expectations, and norms that constitute the culture of a school. Context plays an important role in determining whether or not a professional development program will have the desired impact at a school. DuFour (1998) concluded that even a flawed professional development program, such as a single-session workshop, can have a positive effect in the right school context. Conversely, if the school context is not suited to the professional development program, a well-planned and delivered program is less likely to be effective.

While professional development programs should focus on the unique characteristics of schools, activities should be planned and delivered through the collaborative efforts of school level and district educators. Even though school-based educators have knowledge and experience that can contribute to the design of professional development programs, they work under extremely demanding conditions that often make it impossible for them to become proficient in the latest concepts and strategies. Studies show that, by combining expertise and resources, jointly planned professional development programs are consistently more effective and efficient than those planned by either school or district educators alone (Guskey, 1999).

> *Jointly planned professional development programs are more effective than professional development programs that are planned by either school or district educators alone.*

Principal Provides Support for Professional Development

Research has found that the effectiveness of professional development programs is enhanced when the programs receive strong support from principals (Education Week, 2005; Joyce and Showers, 2002; French, 1997; Licklider, 1997). In schools where professional development is most successful, studies show that principals encourage their teachers to learn and work toward continuous professional growth by (Lashway, 1999; Killion, 1998; Sparks and Loucks-Horsley, 1989):

> *The effectiveness of professional development programs is enhanced when principals provide strong support for the programs.*

• Assessing their staff's professional development needs.

• Focusing professional development on the school's goals.

• Working cooperatively with district staff to develop school and district policies that ensure all teachers have opportunities for continuous learning.

• Clearly and consistently communicating the school's professional development policies to teachers.

• Placing a high priority on professional development and continuous improvement.

- Encouraging teachers to extend their content knowledge and content-specific pedagogy.

- Actively participating in teachers' learning experiences.

- Promoting collegiality, informal communication, and experimentation among teachers.

<u>Provide Sufficient Time, Support, and Resources for Follow-Up Activities</u>

Follow-up activities complement training by promoting transfer to the classroom. Teachers need many opportunities and much support to take risks and try out new strategies. Professional development should provide sufficient time, support, and resources to enable teachers to master new content and pedagogy and to incorporate new techniques into their instructional practice (American Federation of Teachers, 2002; Joyce and Showers, 2002; Joyce and Showers, 2002b; Odden et al., 2002; Black, 1998). Follow-up assistance allows teachers time to reflect on their learning and to experiment with new strategies and should continue long enough for new techniques to be incorporated into ongoing practices (Sparks, 2002; Black, 1998; Sparks and Loucks-Horsley, 1989).

> *Teachers must be provided with ample time, support, and resources to help them incorporate new instructional strategies into their classroom practice.*

Conventional approaches to professional development give teachers a theoretical understanding of new concepts, including multiple demonstrations and opportunities to practice the new skills in the workshop setting, with limited opportunities for follow-up activities. Although teachers usually introduce new strategies into their classrooms following their participation in this style of training, researchers have concluded that, without additional support, less than 10 percent will persist long enough to fully integrate the new skills into their classroom practice (Sparks, 2002; Showers et al., 1996). Showers et al. (1996) found that 88 percent of teachers used new strategies regularly and effectively when they were given the opportunity to engage in follow-up activities. Similarly, DuFour (1998) found that teachers were unlikely to gain mastery of new knowledge and skills without frequent opportunities for practice. Joyce and Showers (2002) have concluded that teachers need about eight to ten weeks of practice, with approximately 25 trials before they can successfully transfer a new strategy to the classroom.

> *Without the provision of follow-up activities and support, less than 10 percent of teachers fully integrate new strategies into their classroom practice.*

> *Teachers need about eight to ten weeks of practice before they can successfully transfer a new strategy to the classroom.*

Peer coaching is the collaborative work of teachers in planning and developing lessons and materials to implement strategies in the classroom. Teachers consult with one another, discuss and share teaching practices, and observe each other's classrooms. Peer coaching provides opportunities for teachers to exchange information about the content they learned in training sessions and provides them with motivation, support, and technical assistance (Joyce and Showers, 2002; Licklider, 1997; Joyce and Calhoun, 1996). Joyce and Showers (2002) found that teachers who used peer support for mutual problem solving, observation, collaborative teaching, and planning were more successful in transferring new skills to their own classroom practice, demonstrated a clearer understanding of new strategies, and practiced new strategies more often and with greater skill than uncoached teachers with identical initial training. Furthermore, coached teachers were more likely than uncoached teachers to retain their new skills over time.

> *Teachers who use peer support are more likely to transfer new strategies to their classroom practice.*

Peer coaching not only contributes to the transfer of learning, but has also been found to facilitate the development of collegiality and experimentation within schools (Joyce and Showers, 2002). Peer

coaching leads to the establishment of professional learning communities within schools. Professional learning communities are teams of teachers who have shared goals for student learning, shared experiences, a common core of knowledge, and a common vocabulary. Learning communities enable teachers to exchange ideas about how to best implement

> *Schools are most effective when they function as professional learning communities that are characterized by shared goals for student learning, collaboration, experimentation, and commitment to improvement.*

practices and shape these practices to fit the specific needs of the students in their school (Redding and Kamm, 1999). King and Newmann (2000) concluded that schools are most effective when they function as professional learning communities, characterized by shared vision and values, collective inquiry, collaborative teams, willingness to experiment, and commitment to improvement.

Evaluate the Effectiveness of the Professional Development Program

Many professional development programs are implemented without an agreed-upon set of expectations of what full implementation and success will look like. In the past, few professional development leaders knew how to measure the impact of professional development on student learning. Professional development results were more often reported as activities completed or the level of teacher satisfaction with the program, as opposed to improved student performance. As a result, educators know training was conducted, but don't know if teachers' classroom practices changed or if students learned more as a result of their teachers' training. This type of documentation does

> *Results-driven professional development measures its success in terms of increased teacher knowledge and improved student performance, instead of simply documenting teacher participation or gauging teachers' satisfaction with the program.*

not convince policymakers or the public that more time and resources for professional development and better quality learning experiences are necessary for improving student achievement (Killion, 2002; Speck and Knipe, 2001; Kennedy, 2000; DuFour, 1997). Results-driven professional development, on the other hand, measures its success in terms of increases in teacher knowledge and skills, changes in classroom practice, and improvements in student learning (Kilion, 2002; Sparks, 2002; Killion, 1999; U.S. Department of Education, 1996).

To evaluate a professional development program's impact on student achievement, the measure of achievement must be aligned with all of the following: the curriculum content, the pedagogy (instructional practice), the instructional resources students use in their classrooms, and the content of the professional development program. When the measure of achievement is closely aligned with these variables, a relationship can be established that correlates specific educator learning and related practices with student results (Killion, 2002).

The blueprint for the professional development program should include a description of how the attainment of the program's goals will be assessed. Information should be gathered throughout the professional development process to continually refine the program (Guskey, 1999). Evaluations of professional development programs should address the following questions (Killion, 2002: Speck and Knipe, 2001; Guskey, 1999):

•   What are the desired outcomes of the program?

•   What are the professional development activities that will lead to the attainment of the desired outcomes?

•   How will it be demonstrated that the program's goals and objectives were attained or that progress is being made? The evaluation process should include feedback from teachers, use of data to show evidence of implementation, and data on student progress or lack of it. Types

of data that can be collected include surveys, interviews, focus groups, observations, lesson analysis, performance tasks, and test scores.

- Who will be responsible for the evaluation? Establishing who is responsible helps to clearly define the roles individuals will play in making sure the evaluation process occurs.

- How and when will data be analyzed? Disaggregated student data should be analyzed, using multiple indicators of student performance. Analysis of the data should determine areas in which students are strong and weak, for which students strengths and deficits are most apparent, and performance deficits that emerge across multiple sources. Educators at all levels should learn how to gather this evidence and use it to refine professional development programs. Involving participants in the review of the results often increases their sense of responsibility for the success of the program.

Killion (2002) has suggested that, in many cases, stakeholders can conduct the evaluation of professional development programs themselves. When stakeholders are involved in the evaluation process, they tend to have a personal stake in the program's success, have more opportunities to understand how the program works, and be better able to avert problems before they occur. Evaluations should be conducted externally when there are questions about the credibility of the evaluation process or concerns that the evaluation will be influenced by the self-interests of the stakeholders. Even when an external evaluation is warranted, stakeholders can still benefit by playing an active role in the evaluation. For a full discussion on the evaluation of professional development programs and how to determine their impact on student achievement, the reader is referred to Killion's (2002) resource guide, *Assessing Impact: Evaluating Staff Development.*

ONLINE RESOURCES

Additional information on professional development can be found online. Following are some selected resources (Professional Development for Teachers Information Folio, 2004).

- Miami-Dade County Public Schools (http://calendar.dadeschools.net/cal/calendar.nsf): Miami-Dade County Public Schools' (M-DCPS) Professional Development Menu and Registration System allows staff to locate, register for, and record professional development courses. The Web site serves all employees: teachers, administrators, and non-instructional staff. Professional development sessions can be located by categories, such as course title, location, instructor, and date range. The system also includes an automated record keeping system for employees to manage their professional development courses. (The Web site can also be accessed through M-DCPS' home page at http://www.dadeschools.net. Click on "Employees" and then click on "Professional Development Menu and Registration System.")

- Florida Department of Education (http://www.firn.edu/doe/profdev/inserv.htm) provides a complete listing of the state's 66 professional standards, as well as professional development resources that include a listing of relevant documents and Web sites, information on promising and model professional development programs, and an evaluation preparation guide.

- Designing Effective Professional Development: Lessons from the Eisenhower Program (http://www.ed.gov/inits/teachers/eisenhower/index.html): This report discusses the U.S. Department of Education's Eisenhower Professional Development Program. The report includes descriptions of teacher experiences, teaching improvements, effectiveness of activities, and the evaluation of the program. Lessons from the program and sample activities from school districts are included.

- Education World Professional Development Center (http://www.educationworld.com/a_curr/index.shtml): The Professional Development Center portion of Education World's Web site includes expert interviews, teacher reflections, ideas for classroom management, message boards, and free newsletters. Current articles related to the improvement of teaching and learning are also provided.

- Making Our Own Road: The Emergence of School-Based Staff Developers in America's Public Schools (http://www.emcf.org/pdf/student_ourownroadbw.pdf): This report, published for the Edna McConnell Clark Foundation, discusses job embedded training as an alternative to traditional forms of staff development. Training components include on-site coaching, self-assessment, reflection, and collegial support.

- The National Staff Development Council (http://www.nsdc.org): The National Staff Development Council (NSDC) is a nonprofit professional organization committed to staff development and school improvement. The Web site offers information on the NSDC Standards for Staff Development, as well as resources from the staff development library. Articles from NSDC publications and information on model staff development programs are provided.

- North Central Regional Educational Laboratory: Professional Development Services (http://www.ncrel.org/info/pd): The professional development portion of the North Central Regional Educational Laboratory's Web site provides online publications, tools and resources, services, and technical assistance. Material is designed for educators, especially teachers and administrators who seek to improve professional development.

- Planning and Conducting Professional Development That Makes a Difference (http://www.sreb.org/programs/hstw/publications/profdev/00V02_ProfDevGuide.pdf): This professional development guide is published by the Southern Regional Education Board. Aspects of an effective professional development program are presented in a step-by-step guide for school leaders. Sixteen elements are discussed in an effort to enhance professional development and increase student achievement.

SUMMARY

The primary purpose of professional development is to prepare and support teachers by giving them the knowledge and skills they need to help all students achieve high standards of learning. Effective professional development produces changes in teachers' instructional practice, which can be linked to improvements in student achievement. The time teachers spend learning and engaged with other teachers is just as important as the time they spend teaching students. Studies have found that student performance improves when their teachers attend high quality professional development programs and transfer new concepts and strategies to their daily classroom practice.

Successful professional development programs have clear, specific goals and objectives; actively involve participants; and consist of multiple training sessions over an extended period of time. Professional development programs should reflect the best available research and practices and be evaluated on the basis of their impact on teacher effectiveness and student performance. Other features of successful professional development include aligning the program with student content standards and curriculum; broadening teachers' content knowledge and pedagogic foundation; promoting collegiality and collaborative exchange; and providing teachers with ample opportunities to engage in follow-up activities that will better enable them to transfer the newly acquired strategies to their classroom practice.

REFERENCES

Achinstein, B. (2002). Conflict Amid Community: The Micropolitics of Teacher Collaboration. *Teachers College Record, 104* (3), 421-455.

Alvarado, A. (1998). Professional Development *Is* the Job. *American Educator.* Retrieved from http://www.aft.org/pubs-reports/american_educator/winter98/ProfessionalDevelopment.html.

American Federation of Teachers. (2002). *AFT's Guidelines for Creating Professional Development Programs That Make a Difference.* Retrieved from http://www.aft.org/pubs-reports/downloads/teachers/PRINCIPLES.pdf.

Black, S. (1998). Money and the Art of Staff Development. *Journal of Staff Development, 19* (2), 14-17.

Cohen, D.K., and Hill, H.C. (1998). State Policy and Classroom Performance: Mathematics Reform in California. *Consortium for Policy Research in Education Policy Briefs* (RB-23). Philadelphia, PA: Graduate School of Education, University of Pennsylvania.

Darling-Hammond, L. (1999). Target Time Toward Teachers. *Journal of Staff Development, 20* (2). Retrieved from http://www.nsdc.org/library/publications/jsd/darling202.cfm.

DuFour, R.P. (1997). The School as a Learning Organization: Recommendations for School Improvement. *NASSP Bulletin, 81* (588), 81-87.

DuFour, R.P. (1998). Why Look Elsewhere? Improving Schools from Within. *The School Administrator, 55* (2), 24-26, 28.

Dunn, R., and Dunn, K. (Eds.) (1998). *Practical Approaches to Individualizing Staff Development for Adults.* Boston, MA: Allyn & Bacon.

Education Week. (2005). *Professional Development.* Retrieved from http://www.edweek.org/context/topics/issuespage.cfm?id=16.

French, V.W. (1997). Teachers Must be Learners, Too: Professional Development and National Teaching Standards. *NASSP Bulletin, 81* (585), 38-44.

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F., and Yoon, K.S. (2001). What Makes Professional Development Effective? Results From a National Sample of Teachers. *American Educational Research Journal, 38* (4), 915-945.

Goldberg, M.F. (2002). *15 School Questions and Discussion: From Class Size, Standards, and School Safety to Leadership and More.* Blue Ridge Summit, PA: Scarecrow Education.

Guskey, T.R. (1996). Jointly Planning Staff Training. *The School Administrator, 53* (11). Retrieved from http://www.nsdc.org/library/publications/jsd/guskey202.cfm.

Guskey, T.R. (1999). Apply Time With Wisdom. *Journal of Staff Development, 20* (2), 10-15.

Guskey, T.R. (2003). Analyzing Lists of the Characteristics of Effective Professional Development to Promote Visionary Leadership. *NASSP Bulletin, 87* (637), 4-20.

Hall, G., and Hord, S. (2001). *Implementing Change: Patterns, Principles, and Potholes.* Boston, MA: Allyn & Bacon.

Joyce, B., and Calhoun, E. (1996). School Renewal: An Inquiry, Not a Prescription. In *Learning Experiences in School Renewal: An Exploration of Five Successful Programs*. Eugene, OR: ERIC Clearinghouse on Educational Management.

Joyce, B. and Belitzky, A. (1997). *Creating a Staff Development System: Report on the Florida Staff Development Evaluation Study*, Florida Department of Education.

Joyce, B., and Showers, B. (2002). Designing Training and Peer Coaching: Our Needs for Learning. *National College for School Leadership*. Retrieved from http://www.ncsl.org.uk/ mediastore/ image2/randd-engaged-joyce.pdf.

Joyce, B., and Showers, B. (2002b). *Student Achievement Through Staff Development, 3rd Edition.* Alexandria, VA: Association for Supervision and Curriculum Development.

Kennedy, M.M. (2000). *Form and Substance in Mathematics and Science Professional Development.* Madison, WI: National Institute for Science Education, University of Wisconsin-Madison.

Killion, J. (1998). Leaders Have Key Role in Promoting Staff Development. Retrieved from http://www.nsdc.org/library/publications/results/res10-98killion.cfm.

Killion, J. (1999). Design Staff Development With Student Needs in Mind. Retrieved from http://www.nsdc.org/library/publications/results/res4-99killion.cfm.

Killion, J. (1999b). Time for Adult Learning Must Connect to Student Learning. Retrieved from http://www.nsdc.org/library/publications/results/res5-99killion.cfm.

Killion, J. (2002). *Assessing Impact: Evaluating Staff Development*. Oxford, OH: National Staff Development Council.

King, M.B., and Newmann, F.M. (2000). Will Teacher Learning Advance School Goals? *Phi Delta Kappan, 81* (8), 576-580.

Lashway, L. (1999). Creating a Learning Organization. *ERIC Digest*. Retrieved from http://www.ericdigests.org/1999-1/creating.html.

Licklider, B.L. (1997). Breaking Ranks: Changing the Inservice Institution. *NASSP Bulletin, 81* (585), 9-22.

Loucks-Horsley, S. (1996). The Concerns-Based Adoption Model (CBAM): A Model for Change in Individuals. In Bybee, R. (Ed.) *National Standards & the Science Curriculum*. Dubuque, IA: Kendall/Hunt Publishing.

Murphy, M. (2000). Designing Staff Development With the System in Mind. *National Staff Development Council*. Retrieved from http://www.nsdc.org/library/publications/results/res9-00murp.cfm.

National Center for Education Statistics. (2001). *Teacher Preparation and Professional Development: 2000*. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=_2001088.

National Commission on Teaching & America's Future. (1996). *What Matters Most: Teaching for America's Future*. New York, NY: Author.

National Staff Development Council. (2001). *NSDC Standards for Staff Development*. Retrieved from http://www.nsdc.org/standards/index.cfm.

Nevada Professional Development Website. (2004). *Job-Embedded Learning*. Retrieved from http://

nv.profdev.net.

Odden, A., Archibald, S., Fermanich, M., and Gallagher, H.A. (2002). A Cost Framework for Professional Development. *Journal of Educational Finance, 28* (1), 51-74.

Peery, A. (2002). Beyond Inservice. *Principal Leadership, 3* (3), 22-28.

Professional Development for Teachers Information Folio. (2004). Arlington, VA: Educational Research Service.

Redding, J.C., and Kamm, R.M. (1999). Just In-Time Staff Development: One Step to the Learning Organization. *NASSP Bulletin, 83* (604), 28-34.

Rice, J.K. (2001). Fiscal Implications of New Directions in Teacher Professional Development. *School Business Affairs, 67* (4), 19-24.

Richardson, J. (1998). We're All Here to Learn. *Journal of Staff Development, 19* (4). Retrieved from http://www.nsdc.org/library/publications/jsd/richardson194.ctm.

Richardson, J. (2002). Think Outside the Clock. Create Time for Professional Learning. Retrieved from http://www.nsdc.org/library/publications/tools/tools8-02rich.cfm.

Roy, P. (2005). A Fresh Look at Follow-Up. Retrieved from http://www.nscd.org/library/publications/results/res2-05roy.cfm.

Showers, B., Murphy, C., and Joyce, B. (1996). The River City Program: Staff Development Becomes School Improvement. In *Learning Experiences in School Renewal: An Exploration of Five Successful Programs.* Eugene, OR: ERIC Clearinghouse on Educational Management.

Singh, J., and McMillan, J.H. (2002). Staff Development Practices in Schools Demonstrating Significant Improvement on High-Stakes Tests. *ERS Spectrum, 20* (3), 14-18.

Sparks, D. (1997). A New Vision for Staff Development. *Principal, 77* (1), 20-22.

Sparks, D. (2002). Focusing Staff Development on Improving the Learning of All Students. In Cawelti, G. (Ed.) *Handbook of Research on Improving Student Achievement, Third Edition.* Arlington, VA: Educational Research Service.

Sparks, D. And Loucks-Horsley, S. (1989). Five Models of Staff Development. *Journal of Staff Development Council, 10* (4). Retrieved from http://www.nsdc.org/library/publications/jsd/sparks104.cfm.

Speck, M., and Knipe, C. (2001). *Why Can't We Get It Right? Professional Development in Our Schools.* Thousand Oaks, CA: Corwin Press.

State of Florida. (2004). *The 2004 Florida Statutes.* Retrieved from http://www.flsenate.gov.

Supovitz, J.A. (2002). Developing Communities of Instructional Practice. *Teachers College Record, 104* (8), 1591-1626.

U.S. Department of Education. (1996). *Achieving the Goals. Goal 4: Teacher Professional Development.* Retrieved from http://www.ed.gov/pubs/AchGoal4/index.html.

Wineburg, S., and Grossman, P. (1998). Creating a Community of Learners Among High School Teachers. *Phi Delta Kappan, 79* (5), 350-353.