Office of Special Services

William Windler

Assistant Commissioner

Anita M. Foxworth Ph.D, Author

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Research You Can Use

Professional Development

Introduction

The passage of the No Child Left Behind Act of 2001, (NCLB) signed into law on January 8, 2002, sounded a clarion call for states, districts, and schools to ensure that every student reaches proficiency on State Standards by 2014. In order for that to happen, educational entities must give serious consideration to the notion of quality teaching as a vehicle for helping all students attain high levels of academic performance. Quality teaching in this context is differentiated from another important concept in the law, highly qualified teachers.

Highly qualified teachers are defined as those who meet the requirements of certification and licensure. Quality teaching, on the other hand, refers to the way that teachers practice the craft of teaching, the skill required to help every student achieve. One does not necessarily guarantee the other. In fact, there are many teachers who have met state qualifications and the definition of highly qualified who are not successful in raising student achievement. This is not an indictment. Rather, it is a statement of the need to focus on teacher skill in implementing practice.

In order to assist teachers who want to be successful with every student, it is imperative to look at another concept embedded in NCLB. That concept is high quality professional development. Titles I and II of the No Child Left Behind Act of 2001 contain requirements for teachers, paraprofessionals, and principals to receive high quality professional development. The section below delineates components of high quality professional development as activities that:

- Increase the knowledge and skills of teachers, principals, and others;
- Are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom;
- Are not 1-day or short-term workshops or conferences;
- Advance teacher understanding of effective instructional strategies;
- Are developed with extensive participation of teachers, principals, parents, and administrators;
- Are designed to give teachers of limited English proficient children, and other teachers

and instructional staff, the knowledge and skills to provide instruction and appropriate language and academic support services to those children, including the appropriate use of curricula and assessments;

- Provide training for teachers and principals in the use of technology;
- Are regularly evaluated for their impact on increased academic achievement with the findings of the evaluations used to improve the quality of professional development;
- Include instruction in the use of data and assessments to inform and instruct classroom practice; and
- Include instruction in ways that teachers, principals, pupil services personnel, and school administrators may work more effectively with parents.

For a full definition of high quality professional development, see section Title IX General provisions, Part A, Sec.9101 (34) (A).

The Northwest Regional Educational Laboratory (NWREL) (1998) offers some additional guidelines for a definition of high quality professional development. Their definition merits consideration. For the sake of brevity, a few critical elements are included here. High quality professional development:

- Focuses on teachers as central to student learning, yet includes all other members of the school community;
- Focuses on individual, collegial, and organizational improvement;
- Respects and nurtures the intellectual and leadership capacity of teachers, principals, and others in the school community;
- Reflects best available research and practice in teaching, learning, and leadership;
- Promotes continuous inquiry and improvement embedded in the daily life of schools;
- Is driven by a coherent long-term plan and,
- Is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning; and this assessment guides professional development efforts.

This month's issue of **Research You Can Use** will focus on the importance of high quality professional development in raising student achievement. It will answer several questions:

- Why is quality professional development imperative?
- What does research say about the link between high quality professional development and student achievement?
- What are some guidelines for effective professional development? What types of professional development practices are ineffective?
- What models provide the best results?
- How should professional development be evaluated?
- How can schools create time for professional development?
- How can districts pay for professional development?

Research Synopses

The literature on professional development is extensive. Professional journals and books are replete with a focus on professional development or the lack of it as a strategy for increased student achievement. Nevertheless, some of the most important studies are reported here.

Why is professional development imperative?

Richard Elmore, (2002) published a monograph entitled: "*Bridging the Gap between Standards and Achievement: The imperative for professional development in education.* Elmore notes:

> "With increased accountability, American schools and the people who work in them are being asked to do something new- to engage in systemic, continuous improvement in the quality of the educational experience of students and to subject themselves to the discipline of measuring their success by the metric of students' academic performance. Most people who currently work in public schools weren't hired to do this work, nor have they been adequately prepared to do it either by professional education or their prior experience in schools."

He makes the case that accountability requires a corresponding investment in the knowledge and skill necessary to produce the improvement of the quality of the educational experience for all students and the increase of the performance of schools. Furthermore, Elmore says that: "professional development should be designed to develop the capacity of teachers to work collectively on problems of practice, within their own schools and with practitioners in other settings as much as to support the knowledge and the skill development of individual educators."

Michael Fullan would no doubt agree with Elmore's perception. He comments on the connection between school improvement and professional development. In one of his earlier articles (1999), he states:

> "School improvement happens when a school develops a professional learning community that focuses on student work and changes teaching. In order to do that, you need certain kinds of skills, capacities, and relationships. Those are what professional development can contribute to…Any school that is trying to improve has to think of professional development as a cornerstone strategy."

In the forward to Killion (2002) Dennis Sparks point out that The National Staff Development Council believes that the primary purpose for staff development is high levels of learning and performance for all students and staff members. He says: "From the Council's perspective, it is imperative for professional development to shape leadership and teaching practices that are intended to improve student learning."

Is there a link between professional development and student achievement?

Sparks (1998) stated, "School board members and state legislators often want evidence of the link between staff development and student learning. But it is difficult to prove a causal connection between the two when other important variables such as standards, curriculum and assessment also enter the equation." Nevertheless, there are a few studies that support the connection. They are summarized below.

In 2000, the Planning and Evaluation Service of the U. S. Department of Education published a study of the findings on the impact of the Eisenhower Professional Development Program on change in teacher practice.

In order to study the effects of professional development on change in teacher practice in mathematics and science, researchers conducted a longitudinal study using a sample of teachers in 30 schools located in 10 districts and 5 states. The study concluded that there were six features of professional development that were effective in improving teacher practice: reform type activities (study groups, teacher networking, mentoring); duration activities (contact hours, and the length of time over which the activity takes place and the degree to which the activity emphasizes the collective participation of groups of teachers from the same school, department or grade level); active learning (opportunities for teachers to become actively involved in meaningful analysis of teaching and learning); coherence (incorporating experiences that are consistent with teachers' goals etc.);and content focus (the degree to which the activity is focused on improving and deepening teachers' content knowledge in mathematics and science.) Unfortunately, this study did not go further to examine the impact on student achievement.

Another longitudinal study commissioned by the U.S. Department of Education, addressed the connection between professional development and student achievement. The study focused on the progress of students in 71 high poverty schools as they moved from third to fifth grade. Researchers investigated the impact of specific classroom practices on student achievement.

The design of the study used a longitudinal analysis to collect data about progress in reading and math. Data were collected in spring 1997, spring 1998, and spring 1999. In their investigation, researchers used the results of standardized achievement tests, teacher surveys, interviews with district administrators and principals, focus groups of school staff and parents, classroom observations, a collection of state and district policy documents, and information from student records.

According to the October 2001 issue of the Title I Monitor, the results of the study indicated that simple strategies like contacting the parents of lagging third graders, and becoming involved in good professional development increased student growth in reading by 1/3 of a grade. Specifically, the findings were as follows:

- Students made greater gains in reading when teachers rated highly their professional development in reading and said that it matched their school's reform plan, focused on standards and assessments, and added to their confidence in using new approaches. The growth in student test scores between grades three and five was about 20% greater when teachers rated their professional development high than when they gave it a low rating.

Similar findings were evident in increased mathematics results:

- As in reading, students made greater gains in mathematics when teachers highly rated their professional development in mathematics and said that it matched their school's reform plan, focused on standards and assessments, and added to their confidence in using new approaches. Growth in test scores between grades three and five was 50 percent higher for those students whose teachers and schools rated their professional development high than when they gave it a low rating.

Dr. Jane Kahle, in testimony to the U. S. House of Representatives' committee on science, cited a study conducted by the Rand Corporation. The study showed relationships between the use of reform teaching practices and student achievement on both multiple choice and open-response mathematics tests, in six systemic initiative sites. She stated that in all but one site, student mathematics performance improved on both types of tests in direct relationship to the frequency of use of standards based teaching practices. Kahle noted that long term and content based professional development were responsible for student gains.

Finally, two reports are worthy of note here. Wenglinksy (2000) in a report entitled: "*How teaching matters: bringing the classroom back into discussions of teacher quality*" provided evidence of the link between types of teacher development and improved student learning in mathematics and science. The National Education Goals Panel's report, "*Bringing all students to high standards*" also linked professional development to improved student achievement. Both of these reports were cited in Sparks (2002).

What are some guidelines for effective professional development?

The Northwest Regional Education Laboratory (1998) poses an interesting question about effective professional development. NWREL asks and answers: "Is an effective professional development activity one that is rated positively by participants in terms of satisfaction with the experience (often called the "happiness quotient")? Most would agree that the standard must be much higher."

The Colorado Staff Development Council offers guidelines for effective professional development in three areas: process, content, and context. These are listed below:

Process:
- Is rigorous, results-based; data driven and tied to student achievement;
- Is ongoing and an integral part of an educator's workday;
- Uses a variety of approaches and professional development models;
- Is teacher-designed , collaborative, and school centered; and
- Focuses on teachers as central to student learning; yet includes all other members of the school community.

Content:

- Focuses on student learning;
- Is rich in academic content, learning processes, current research, material, and technologies; and
- Uses the systematic study of student work to improve teaching and learning.

Context:

- Allocates adequate resources, including people, time, and facilities;
- Aligns with long-term school and district vision, goals, accountability plans, and other components of a standards-driven system;
- Requires participation and support of administrators;
- Promotes an understanding of change, leadership, and organizational development;

- Occurs in environments of safety, trust, and shared problem solving; and
- Promotes equity.

The National Staff Development Council has an updated version of these standards on their website: http://www.nsdc.org. The scenario below incorporates some of these guidelines:

It is 3:30pm and classes are over for teachers at John Glynn Jr. High. The teachers are all looking forward to the professional development session focused on examination of student work. The session is the result of collaborative work begun last year when the principal instituted Critical Friends Groups. The teachers talk about what they are learning about their teaching and about their students as the monthly dialogues continue. Teachers increasingly talk with their colleagues about teaching practice and they use each other as resources for continued professional growth.

What type of professional development is ineffective?

NWREL (1998) indicates that these characteristics make professional development ineffective:
- Tendencies toward fads and/or quick-fix solutions;
- Overload or too many competing demands;
- Lack of attention to site specific differences
- Teacher turnover;
- Failure to allow sufficient time to plan for and learn new strategies; and
- Attempts to manage by central office staff, rather than provisions to develop capacity and leadership at the school.

The scenario below has several characteristics of ineffective professional development:

It is 3:30 pm and classes are over for teachers at Samuel B. Clemmons Jr. High. The teachers file into the Learning Resource Center for a professional development session. The teachers gripe about too many school reform initiatives that have brought more work and a lack of focus. Most complain about sitting through another two hour monthly professional development session that seems to have no relevance to their teaching even though the professional development was chosen by a needs assessment. Teachers are unhappy that nothing seems to happen as a result of the monthly sessions. Once the sessions have passed, there is never a mention of them.

Sparks (2000) offers six ways to immediately improve professional development. The entire article is on the National Staff Development Council's website. See the reference section.
- Examine various sources of data on student learning to select a small number of schoolwide, department, or grade-level staff development goals.
- Use faculty, grade-level, and department meetings for learning; minimize time spent on other tasks during these meetings. Use this time for teachers in small groups to review research, consider applications of the findings, and share strategies.
- Find additional opportunities for learning each week by using one or more of the many excellent suggestions for creating time available at www.nsdc.org/library/time.html.
- Focus learning on deepening teachers' knowledge of the content they teach and on expanding the repertoire of instructional strategies available to them so they can successfully teach an increasingly diverse student population.

- Extend training into the classroom by providing extensive coaching and study groups for all teachers. Without intensive follow-up, only a small portion of the learning will make its way into everyday practice in classrooms in a way that improves student learning.
- Organize regularly-scheduled meeting for principals focused on the district's learning priorities for students. Teach principals helpful ways to critique one another's school improvement efforts and how to use data and student work in decision making. As with teachers, provide generous amounts of time for small group discussions.

What professional development models provide the best results?

Traditionally, professional development has relied on workshops, conferences, or participation in in-service training. According to Wood and McQuarrie (1999) "One of the most promising new approaches to professional growth in education is job-embedded learning, learning that occurs as teachers and administrators engage in their daily work activities."

Wood and Killian (1998), conducted a study examining what makes a school successful at improving instructional practice and student learning. They found that the professional growth experiences that appeared to have had the greatest impact on teaching and learning were a part of the teachers' normal work activities. The authors listed these strategies as examples of job-embedded learning:

- Discussion with others
- Peer coaching
- Informal peer observations
- Mentoring of teachers
- Study groups and action research
- Other activities (i.e. strategic planning, discussion of curriculum alignment, and planning with their teaching teams).

One other professional development model deserves examination here. That model is professional development schools. Professional development schools are partnerships between Institutions of Higher Education (IHE) and K-12 schools. Often there are contractual arrangements between the IHE and the local schools. In order for these models to be effective, the responsibilities of all parties should be clearly delineated.

How should professional development be evaluated?

Typical evaluations of professional development focus on the participant's reaction. Yet, if schools are to use professional development as a vehicle for improving student achievement, there is a need to go beyond just surface evaluations. The National Staff Development Council includes as one of its standards the evaluation of staff development. The standard reads "Staff development that improves the learning of all students uses multiple sources of information to guide improvement and demonstrate impact."

Killion (2002) maintains that the assessment of impact while challenging, is nonetheless the most critical type of staff development evaluation. There is a need to assess the effectiveness of a staff development program rather than isolated training events. Such events though somewhat useful, will not lead to impact on student achievement. The end result of the evaluation should be answers to questions such as: What is the effect on teacher practice? What is the impact on student achievement?

Killion suggests that the following steps be followed in evaluating professional development:

- Step 1 **Assess evaluability** (determine whether a staff development program is ready to be evaluated).
- Step 2 **Formulate the question** (prepare the question or questions that will guide the evaluation study).
- Step 3 **Construct the evaluation framework** (design the plan for evaluation including the identification of the specific kinds of changes expected from the program, tools, and methods for gathering data, sources of the data, the timeline for the evaluation study, etc).
- Step 4 **Collect data**
- Step 5 **Organize and analyze data** (sort and organize collected data, analyze the data and display the data).
- Step 6 **Interpret data** (engage stakeholders in making sense of the data, interpreting the data, drawing conclusions or findings from the data, and making recommendations for the next steps).
- Step 7 **Report findings** (disseminate the evaluation findings to the appropriate audiences in the most suitable formats).
- Step 8 **Evaluate the evaluation** (reflect on the evaluation process to debrief and learn ways to improve the next evaluation).

Champion (2003) comments on the need to answer the question: "What are the participants actually learning?" She offers 10 guidelines for focusing staff development on participant learning:

- Avoid ambushes; let participants know that their learning progress will be checked frequently.
- Design professional learning experiences to ensure participants' learning success.
- Check learning progress early and often.
- Practice what you teach about assessment tools, model the use of assessment tools that you want educators to use with their students (e.g. rubrics, performance assessment, etc.).
- Use the learning data immediately to improve the program.
- Respect your learners' privacy; avoid setting up situations where participants make personal learning results public.
- Check learning at higher levels, move beyond just recall, explain, select, etc.

- Before using any learning assessment tool, work out the bugs, field test learning assessments before using them.
- Assess the important constructs and skills, not tangential content.
- Remember to move on to the next evaluation question: "Are participants using what they have learned?"

How can schools create time for professional development?

> "Principals seeking to raise performance for all students know better than anyone that more time is required for teacher professional development. The question is not whether to make ongoing improvement in teachers' skills and knowledge a more significant part of teachers' daily work life, but how to do so without disrupting student learning or breaking the bank."(Sparks, 1999)

Sparks identified lack of time as one of the significant barriers to professional development. Richardson (August/September 2002) said that schools and districts that have carved out more time for professional learning have typically relied on one of the following strategies:

- Banking time (lengthening the regular school day and saving the extra time to make larger blocks of time when teachers can plan or learn together.)
- Buying time (hiring additional staff to create smaller classes and/or expanding or adding planning or learning times for teachers.)
- Creating common time (making a common time for teachers to plan, share information, collaborate on projects or learn more about their shared interest.)
- Freeing teachers from instructional time (using a variety of strategies to create a large block of time when teachers can learn.)
- Adding professional days to the school year
- Using existing time more effectively (e.g. providing professional learning time during staff meetings.)

How should districts pay for professional development?

Finding resources for professional development is not difficult. The challenge is to make thoughtful decisions about the best use of existing resources since it is unlikely that schools will receive a considerable new influx of dollars. A decision must be made regarding the establishment of professional development as a priority and the allocation of sufficient resources for schools to accomplish the goals of adequate yearly progress and increased student achievement.

Since the Consolidated Federal Programs' application is due in June, Titles I and II are obvious sources of funding but there are others. The additional attachment to this newsletter provides a matrix of funding sources and grant requirements for using these sources for professional development. The matrix is also available on CDE's website at:
http://www.cde.state.co.us/cdeedserv/regfundopps.htm

Conclusion

Perhaps it is time to move beyond a focus on professional development to a focus on professional learning. According to West Ed. (2000) successful school reform flows from a culture of learning, for teachers, students, para-educators, and the entire community. Professional learning that is embedded within the organizational context is more likely to produce the teacher learning that is required for student learning. The National Commission on Teaching and America's Future (1996) concludes, "What teachers know and can do is the most important influence on what students learn."

We already know everything that we need to know to use professional learning as a powerful vehicle for change. We only need the will, the commitment, and the alignment of resources to make it happen.

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Additional Resources

Blueprints: A practical toolkit for designing and facilitating professional development. Contact North Central Regional Educational Laboratory at 800.356.2735

By your own design: A teacher's professional learning guide. Available: http://www.enc.org/pdguide

Norms and Tools: A roadmap to professional practice. Contact Mid-continent Research for Education and Learning at 303.337.0990

Professional development: A toolkit for schools and districts based on model professional development award winners. Contact North Central Regional Educational Laboratory at 800.356.2735

Professional development criteria, a study guide for effective professional development.
 Contact Mid-continent Research for Education and Learning at 303.337.0990

Teachers who learn, kids who achieve: A look at schools with model professional development. Available: http://www.wested.org/cs/wew/view/rs/179