Well-designed, thoughtfully planned, and adequately supported professional development is a necessary ingredient in all educational improvement efforts. Effective professional development is the center of educational reform (Dilworth & Imig, 1995). Under the No Child Left Behind Act, states and local districts are required to plan systemically for professional learning and focus on improving teacher performance and student achievement.

For staff development to have an impact on students, Thomas Guskey (2000) suggests that it first must have an impact on the teachers who are engaged in the professional development experience.

In a study of 11 public schools in two suburban New York districts, researchers tried to determine the impact of professional development on teachers using Guskey's (2000, 2002) models of teacher change and evaluating professional development based on six criteria:

- Participant satisfaction;
- Participant learning;
- The organization's support and change;
- Change in teacher knowledge, skills, and instructional pedagogy;
- Teacher perception of student learning; and
- Changes in attitudes and beliefs of teachers.

A total of 650 surveys were put in K-12 classroom teachers' school mailboxes along with a preaddressed, stamped envelope. Of those surveys, 205 were returned, a response rate of 32%.

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The survey was based on Guskey’s five levels of evaluating professional development and model of teacher change (Guskey, 2000). The survey gathered background information about professional development process, format, and content teachers experienced and asked about their perceptions of their professional development.

The evaluation then attempted to determine differences between teachers who said they experienced ineffective professional development and teacher change and those with more effective experiences, as well as the relationship between the change in teachers’ attitudes and beliefs about teaching and their perceptions of professional development.

Responses to six main categories of research questions revealed a perceived increase in student learning and academic achievement by teachers who participated in effective research-based professional development. Changes in teacher attitudes and beliefs about teaching and learning were noted for those teachers who participated in effective professional development process, format, and content.

**QUESTION 1:**
What is the nature of the professional development process in the participating districts?

Professional development is most effective when it is job-embedded, based on the school district’s goals, and conducted during the school day (Abdal-Haqq, 1996). Only a little more than half the teachers in this study (54.6%) said they were involved with professional development during the school day. The majority, 90.2%, indicated they participate in professional development during conference days.

The literature (Richardson, 1997) indicates the importance of having a shared district vision, setting clear goals, and planning professional development that aligns to the needs of the school district. Sixty-eight percent (68%) of teachers in the survey indicated that they are aware of their district’s professional development plan goals. However, 31.2% of the respondents indicated that they are not.

In addition, experts say the district’s professional development plan should be linked to student achievement and data collection, and evaluation should be part of the plan (Cook, 1997; Guskey & Sparks, 1991; Killion, 2002; and Guskey, 2002). The study shows 73% of respondents say their district’s professional development plan is linked to student achievement. The remaining 24% were not sure, and 3% said no.

In this study, 43.9% of the participants said their district’s professional development plan is linked to evaluation. Another 20% said it was not, and 35.6% were unsure. If a teacher is unsure that his or her professional growth is linked to a job evaluation, the plan’s goals are seemingly unclear, which would explain why 31.2% of the teachers responded that they were not aware of the goals of their district’s professional development plan.

**QUESTION 2:**
What is the nature of the professional development format in the participating districts?

Most of the teachers who responded to this question on the survey indicated that they participated in workshop training sessions (91.2%) and clinical observation and assessment experiences by a supervisor (92.2%).

Effective professional development consists of inquiry, action research, reflection, collaboration, and mentoring (Abdal-Haqq, 1996; Ferraro, 2000). These categories got the fewest responses.

**QUESTION 3:**
What is the nature of the professional development content in the participating districts?

Effective professional development plans are created by all members of the school community, including teachers, administrators, parents, and community members (Sparks & Hirsh, 1997; NSDC, 2001). Only 26.3% of the respondents of the survey indicated that decisions regarding professional development were made by a combination of people, as the research suggests. Nearly 70% of the respondents indicated that district-level administrators made the decisions about the district’s professional development.

The content of professional development indicated in this study included various topics; the most popular was technology integration. Curriculum development, reading and early literacy, math instruction, and differentiation were the next most popular. Only 13 main categories of professional development content were indicated, which shows that the two school districts were narrowing professional development content opportunities for teachers. A larger variety of content areas available for teacher staff development would mean the districts’ efforts were fragmented and unfocused.

**QUESTION 4:**
What relationship exists between the change in teachers’ attitudes and beliefs about teaching and learning and their perceptions of professional development at each of the five levels of evaluation?

Much of the literature and research states that the goal of professional development is to provide...
opportunities for teachers to learn and grow within the profession, thereby making an impact on student learning (Guskey, 2000). Teachers in this study did not overwhelmingly feel that professional development changed their attitudes and beliefs about teaching and learning. There was a strong correlation, however, between how the teachers evaluated their use of new knowledge and skills and professional development’s impact on student learning outcomes, meaning that student achievement was positively impacted due to teachers’ implementation of newly learned skills and instructional strategies in the classroom.

**QUESTION 5:**
How do teachers who have experienced research-based effective professional development process, content, and format evaluate their experiences of professional development at each of the five levels and the teacher change process?

Data regarding effective professional development indicate a statistically significant difference at each level of evaluation between participants involved in the most effective professional development activities and those who were involved in ineffective professional development activities to a lesser degree.

Effective professional development in this study is characterized as:
- Linked to district goals and school improvement;
- Aligned with the teacher evaluation process;
- Offered during the school day;
- Consisting of individual professional development plans, guided practice, reflection, mentoring, district curriculum development, peer study groups, inquiry and action research, long-term courses within the district with in-class support; and
- Having content determined by a combination of school community stakeholders.

The teachers engaged in effective professional development evaluated their experiences more positively than the other group. Process, format, and content made a difference in the way teachers evaluated their experiences regarding initial satisfaction, acquisition of new knowledge and skills, organizational support, degree and quality of implementation, student learning outcomes, and changed attitudes and beliefs about teaching and learning. Teachers who had the most effective professional development experiences positively evaluated the organization’s support and change and were more likely to strongly agree with statements that their attitudes and beliefs about teaching and learning changed.

**QUESTION 6:**
How do teachers who have experienced ineffective professional development process, content, and format evaluate their experiences of professional development at each of the five levels and the teacher change process?

Ineffective professional development is characterized for this study as:
- Unfocused and fragmented;
- Not aligned to school improvement and the teacher evaluation process;
- Offered after school, during the lunch hour, and/or on weekends;
- Presented as clinical classroom observations, presentations or demonstrations, training workshops, going to conferences, and/or participating in expert lectures or motivational speeches; and
- The content is decided upon by teachers only.

The greatest difference between those who experienced effective professional development and those who participated in less-effective professional learning was in the sixth level of evaluation: change in attitudes and beliefs. Changes in attitudes and beliefs about teaching and learning were more likely if teachers participated in effective professional development.

Another area of statistically significant difference was student learning levels. The more ineffective the professional development, the less teachers agreed with its impact on student learning.

Finally, teachers who experienced the least effective professional development agreed least with statements such as: meets my needs; is nonthreatening; is time well spent; and is generally a positive experience.

**RECOMMENDATIONS**
Recommendations based on this research include:
- **Communicate more and better.**
  The goals of the district’s professional development plan, as well as the vision and mission for academic achievement, must be communicated on an ongoing basis to all stakeholders in the school community, especially the teachers. Professional development should be aligned to the school district’s needs and designed to affect student achievement. Staff development leaders must be clear about their staff development goals and must remain focused on the initiatives’ impact on student learning outcomes.
- **Link the district’s professional development plan to teacher evaluations.**
  According to Guskey (2000), teacher observation and conferencing is one way to assess the use of new knowledge and skills gained from professional development experiences. Teachers’ professional performance reviews must link to their personalized professional development plans and the overall district professional...
development plan. Open communication about this plan and a set of clear objectives for professional learning are essential.

- **Refine the plan.**

  The district professional development plan should include a research-based model of job-embedded, sustained, and systemic professional learning, ways for teachers to participate that are nonthreatening, sustained, and systematic, and time for teachers to learn during the school day.

- **Have a committee of all stakeholders, including teachers, administrators, union representatives, and parents, plan and make decisions about professional development.**

  The committee would ensure that professional development is aligned to the district’s needs and goals as well as the teacher evaluation process. This committee should be a subset of the district comprehensive planning committee.

- **Ensure that the new knowledge and skills are being implemented in the classroom.**

  Provide additional in-class support, either following or in conjunction with the professional development experience, to enhance teaching strategies and instructional pedagogy.

- **Examine the district’s current professional development process, format, and content in light of the research-based characteristics of highly effective professional development.**

  Implementing high-quality professional development in a school district is essential for organizational change, sustained change in teacher attitudes and beliefs of instructional pedagogy, and an increase in student learning outcomes. District personnel should evaluate their current professional development content, process, and format in light of high-quality professional development practices and employ the strategies of highly effective professional development.

- **Build formal and systematic evaluation of the district’s professional development plan into the plan from the beginning.**

  Evaluation should not be an afterthought (Champion, 2002). It should be linked to the overall comprehensive district plan and should align with the teacher evaluation process. The evaluation should include both formative and summative methods. Data should be gathered at all critical levels of professional development evaluation. Consider making professional development evaluation part of school district policy.

### IMPLICATIONS FOR POLICY AND PRACTICE

The results of this study have broad-based implications for districts’ professional development policy and practice. Professional development planning and effective implementation require the organization’s support. The community, parents, and board of education need to support professional development initiatives in the district in order for systemic and long-term transformational change to occur. Boards of education may consider extending the school day, approving more time and extra pay for professional learning in the teaching contract, and allowing additional time in the school calendar for professional days. All of these policy considerations have financial implications for the school district. Parents and community members should be informed of teacher professional growth efforts and the effect of such efforts on the school budget and on students’ academic achievement.

## REFERENCES


