Content and Coherence in District Professional Development:
Three Case Studies

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Organizational theory suggests great pessimism about the potential of school districts for supporting educational improvement. The traditional view is that educational organizations—and school districts, in particular—are loosely coupled organizations where the main resources for central leadership are insufficient to penetrate the isolation of the classroom (Bidwell, 1965; Weick, 1976). The great variation in how mid-level district bureaucrats interpret the same policy (Spillane, 1998) and the apparent vulnerability of top district leadership to various forms of political intervention, resulting in frequent turnover in that position (Brunner & Bjork, 2001), both weaken districts' potential for concerted action.

Yet dissenters argue that districts have considerable resources to influence instruction and that if districts seem to lack influence, it may be because they fail to take advantage of the resources at their disposal (Corwin & Borman, 1988; Floden, Porter, Alford, Freeman, Susan, Schmidt, et al., 1988). More recently, analysts have asserted that districts can play a key role in supporting instructional reform (Hightower, Knapp, Marsh, & McLaughlin, 2002; Spillane, 1996).

Resulting from an applied project to help districts better track their professional development activities, this paper contributes to the second view through an analysis of three urban school districts in New Jersey. A comparison of these districts suggests that districts in relatively similar demographic and policy contexts take very different approaches to offering professional development.

In examining this pathway to improved teaching, and presumably improved student learning, this paper provides an overview of research on professional development as a tool for

reform and districts' role in providing it. After describing the study's policy context and methodology and the authors' relationship to the districts, three major topics are discussed: an analysis of district leadership and its vision for professional development, presentation of the formal programs for professional development and their perceptions by teachers, and a depiction of how teachers say the district professional development programs influence their own practice.

Professional Development and the District

This section reviews the kinds of knowledge that teachers need, ways to organize professional development to strengthen teachers' understanding of and ability to use that knowledge, and factors that might lead districts to use some of the more effective approaches to professional knowledge.

Teacher Knowledge

Recent research on teaching has clarified what teachers are expected to know in order to improve the education of all children. Teachers need to know the subjects they teach (National Commission on Teaching and America's Future, 1996). Ball and Cohen (1999) describe how ideas about subject matter knowledge now go beyond familiarity with the facts and procedures of a discipline to include the ideas, meanings, and connections among them, as well as an understanding of what constitutes good reasoning in a particular subject area.

Accompanying this deeper understanding of subjects taught is a repertoire of means to communicate ideas to students and activities through which students can develop their own (relatively accurate) ideas about the facts and concepts in a field (Ball & Cohen, 1999; National Commission on Teaching and America's Future, 1996). One well-established version of this repertoire seeks what Newmann and associates (1996) call "authentic achievement." This is obtained by three primary strategies: using disciplined inquiry, which subsumes both addressing the central ideas of a field and promoting substantive conversation about them; creating contexts through which students actively construct knowledge; and making substantive connections to the world beyond the classroom.

The evidence on the effects of teachers' knowledge is limited but growing. A few well-designed studies suggest that when teachers have a deep understanding of subjects they teach and effective means to help students understand those fields, those students do achieve at higher levels in mathematics and social studies (Cohen & Hill, 1998; Fennema, Peterson, & Carpenter, 1989; Newmann, 1996). A recent review of research concludes that professional development for teaching reading that requires analysis of students' mental processes changes teachers' attitudes toward reading instruction and improves student achievement (National Reading Panel, 2000).

Knowledge of subject matter and how to communicate it is usually best supported by classroom management that creates an environment that supports instruction (Carter, 1991). The approaches to classroom management required by direct instruction (Brophy & Good, 1986) and the kind of instruction described by Ball and Cohen (1999) may be quite different. In either case, the teacher must establish the routines and understandings that facilitate teaching and minimize the inevitable disturbances that arise.

Because learning requires focus, teachers need to know strategies that can improve students' motivation and behavior. When professional development about students' motivation and discipline engages teachers in conversation with one another, teachers change their beliefs about motivation and can better plan interventions (Cherubini, Zambelli, & Boscolo, 2002). Skills-based, continuous professional development that addresses students' motivation and behavior can improve students' engagement (Sawka, McCurdy, & Mannella, 2002).

Approaches to Professional Development

More is being learned about how practicing teachers, who often enter the profession without the complex knowledge described above, can obtain that knowledge through professional development. This section addresses two frequently discussed elements of professional development: its content and its coherence.

Knowledge about the subject should come in a form that is useful in the classroom (Ball & Cohen, 1999; Hawley & Valli, 1999), and thus one form of professional development provides teachers the opportunity to work with the ideas behind classroom materials and the practical problems of using those materials and helping students to understand the ideas. Professional development should not only be rich in ideas and materials about the subjects taught but must also provide teachers with opportunities to incorporate and modify those ideas into their own teaching (Little, 1993). A small but growing body of evidence links this emphasis on developing subject knowledge in professional development to changed teaching practice, which has been shown to increase student achievement (Cohen & Hill, 1998; Fennema et al., 1989).

Another form of professional development focuses on improving teaching methods. There has been a major shift in preferred instructional methods in the past two decades. Twenty years ago, researchers advocated a set of generic instructional practices, such as increasing the amount of time in which students were engaged in learning; clear teacher presentation of materials; and repeated, highly structured but not intellectually challenging practice (Brophy & Good, 1986; Rosenshine, 1983). The idea was to break each topic into small parts, ensure that students could do the work in question quickly, and then move on to the next topic. Teaching strategies were teacher centered, fast paced, and emphasized fluency over comprehension in an attempt to improve achievement.

With the recent teachers' emphasis on improved command of subject matter, generic teaching strategies have been deemphasized in favor of subject-specific teaching practices, leaving the boundary between strategies and content knowledge unclear. Moreover, in keeping with the constructivist revolution in thinking about both teaching and learning, the emphasis has shifted away from fast-paced practice to strategies that require children to explore ideas (often with peers), understand the connections between ideas in a subject, and become fluent in the modes of representation and thinking patterns in the field. This change requires activities of

longer duration than was the case 20 years ago, activities in which students manipulate objects and ideas with less direct control from the teacher (Ball & Cohen, 1999; Lampert, 1990). The evidence for the benefit of these instructional approaches, like the evidence for improved content knowledge among teachers, is limited but growing (Cohen & Hill, 1998).

Another kind of content for professional development focuses on understanding children's special needs and therefore requires a knowledge of such topics as human development, the sociology of various ethnic groups, or issues related to learning disabilities. In some cases, such professional development includes relevant teaching strategies, but it often focuses on helping teachers understand students, in general, or the special situations of certain groups of students (Bender-Szymanski, 2000; Boyle-Baise, 2002; Padovano, Senzer, & Church, 2002).

These are some of the most common kinds of content that can be included in professional development programs. The number of areas covered in a given year will depend, in part, on the coherence of the professional development program.

Coherence

Coherence in professional development is frequently recommended but not always clearly defined (Ball & Cohen, 1999; Hawley & Valli, 1999). Fundamentally, coherent professional development addresses a few areas in depth with effective follow-up. Professional development that hits on many topics for small amounts of time (e.g., 2 or 3 days of release time) will not help teachers accumulate enough knowledge to support the extensive changes required by new understandings of effective teaching. Coherent professional development advocates a continuous approach featuring a threaded set of activities through which teachers are introduced to new materials and ideas and have occasions to try those ideas and reflect on and refine them, rather than the one-shot workshops that have been so common (Hawley & Valli, 1999). Such extended learning opportunities are more likely to promote long-term changes in teaching practice (Supovitz, Mayer, & Kahle, 2000).

Another element of coherence is the form of professional development events. When these events model approaches to instruction that teachers are expected to use, they establish coherence between training and practice and are more likely to be effective. Scholars and school leaders recognize the need for more professional development events that incorporate elements of situated practice and exercises that lead to an understanding of the cognitive aspects of learning (Cohen & Hill, 2001; Spillane, 2000), including roleplaying and problem solving for teachers. Such learning is partly situated in the classroom and refers to students' actual work (Spillane, 2000). Finally, both the content of professional development and its form should be aligned with district and state goals (Anderson, 2002).

Districts and Professional Development

Researchers laud the usefulness of school-based professional development, but districts usually provide leadership in both designing and delivering formal learning opportunities for teachers. Districts are the major source of technical expertise, whether through contracting with outside experts to offer workshops or providing content area specialists to work with teachers. District staff members also schedule and allocate funding for most professional development events. Even decisions to place certain responsibilities in the school are centrally made. In contrast, the principal's role in professional development is usually informal and includes supporting teachers as they try new, centrally suggested activities and providing guidance through normal supervision channels. This whole process is not so much a communal, collaborative process as it is one in which professional development is "delivered" to teachers (Firestone, Schorr, & Monfils, 2004).

Coherent professional development that focuses on subject matter content is the exception to the rule in most districts. However, several case studies suggest that districts can organize professional development more effectively than they now typically do (Hightower et al., 2002). One well-documented instance is District 2 in New York City (Elmore & Burney, 1999; Stein & Nelson, 2002). The superintendent in this district, Anthony Alvarado, made improving

literacy—and, later, mathematics—his priority. After hiring and removing staff to get a team that shared his commitment, he began a long-term process of helping teachers develop a deeper understanding of these subject areas and how to teach them. Elmore and Burney emphasize that the professional development effort was part of a broader change program, which became central to all decision making in the district, requiring constant protection from threats to resources and its coherence. Indeed, after leaving District 2 to lead a similar program in San Diego (Hightower, 2002) shortly thereafter, Alvarado encountered grave resistance from the union and was demoted (Archer, 2002).

Two points stem from the limited evidence about districts that have offered a professional development program that includes many of the effective elements cited above. First, effective professional development appears to reflect local initiative and what others have called "internal accountability," that is, accountability that is generated from inside, not imposed by state or federal mandates, and that becomes a self-enforced part of a school or district (Newmann, King, & Rigdon, 1997). Whatever external accountability demands are made on a district, the decision to restructure professional development in a constructive manner depends on local initiative. Although a mix of top-down and bottom-up elements is usually present (Marsh, 2002), top district leaders set the direction for the reform effort and the direction for professional development—just as a coalition at the top of the district is usually responsible for interpreting external reform policies and setting directions (Firestone, 1989).

Second, professional development as an aspect of reform may be vulnerable to a variety of sources of opposition. In San Diego, opposition came from the teachers' union. In other instances, it may come from the community (Fairman & Firestone, 2001). Although such opposition may not be fatal (McLaughlin & Talbert, 2002), we still know little about such forces and their consequences.

Policy Context

Three policy changes in the mid-1990s had a particularly strong influence on district professional development practices in New Jersey. They result from the state's ongoing school finance litigation, the adoption of standards and aligned assessments, and a new requirement governing professional development.

New Jersey's *Abbott v. Burke* school finance litigation began in 1981. In the late 1990s, the New Jersey Supreme Court required the state to immediately provide funding that would match the per pupil expenditure in the state's wealthiest districts, substantially increasing the operating budgets of the 28 districts that were plaintiffs in the case. These districts had a limited property tax base and were predominantly urban (Firestone, Goertz, & Natriello, 1997). The court also required schools to adopt whole-school reform (WSR) programs. The court specified that the state should mandate the use of Success for All, a program that was coherent and subject centered, focused on literacy and mathematics, and had a prescriptive approach to professional development. However, the New Jersey Department of Education allowed schools to adopt a wide range of WSR programs that differed in their prescriptiveness, comprehensiveness, and focus on subject matter (Erlichson & Goertz, 2001).

The second change was the adoption of state core curriculum content standards and the alignment of the state's testing program with those standards. In 1996, the state adopted its core curriculum content standards in seven areas, including mathematics (New Jersey State Department of Education, 1996). These standards are consistent with the most challenging national standards (National Council of Teachers of Mathematics, 2000). Within 2 years, the state began giving tests in the fourth, eighth, and eleventh grades that were aligned with these standards. The fourth-grade Elementary School Performance Assessment (ESPA) was first piloted in mathematics and language arts testing in 1997. The first operational administration of the mathematics, science, and language arts tests occurred statewide in spring 1999. The tests required that students spend about half of their time answering multiple-choice items and the

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other half answering relatively short, open-ended items. The test specifications emphasized "knowledge and skills," "conceptual understanding," "procedural knowledge," and "problem-solving skills."

With the exception of the high-school test, which students had to pass to graduate, tests had low stakes. Still, routine newspaper publication of test results created some pressure to do well, especially in the poor, urban districts that routinely scored substantially below the state average (Firestone et al., 2002). In theory, the adoption of standards and state tests would have encouraged districts to focus their professional development primarily on language arts and mathematics.

The third change was a 1998 requirement that teachers receive 100 hours of professional development every 5 years. The board overseeing implementation of this regulation adopted professional development standards that proclaimed that good professional development should be aligned with the core curriculum content standards and linked to classroom practice. However, with their principal's agreement, teachers had considerable leeway to determine what professional development would count towards the 100 hours. Moreover, beyond the standards, guidelines were vague and no sanctions for noncompliance were specified.

Methods

The data reported here come from a project intended to describe the operation of professional development programs in three New Jersey urban districts in order to help these districts improve their collection and use of professional development data. This section describes the sample of districts, schools, and teachers; explains how information was collected on professional development events; and clarifies the interview process and analysis of data.

The Sample

New Jersey has one of the most urbanized student populations in the country, but it has few large cities or school districts. The number of students in 30 poor Abbott districts ranges from fewer than 2,000 to more than 40,000. Moreover, although the state consistently rates near

the top in per pupil spending, it is also noted for having extensive inequities among districts (Editorial Projects in Education, 2001).

The three districts that agreed to participate in this project are all Abbott districts that share a reputation for acting aggressively to improve educational performance. Although their student numbers are above the median for Abbott districts, they share many of the demographic and performance characteristics of the nation's urban districts. Table 1 provides a demographic snapshot of these districts.

Because WSR programs shifted some responsibility for professional development to the schools, four schools—one high school, one middle school, and two elementary schools—were chosen in each of the three districts for focused data collection. Working with district administrators, the researchers chose schools where principals were willing to cooperate and schools that reflected the balance of WSR programs in the district. In District A, where most schools used the same programs, we sought out schools using that program. In Districts B and C we sought a variety in the WSR programs.

Interviews

Although interviews with teachers provided the bulk of the data for this report, interviews with district-level personnel, school principals, and WSR facilitators also contribute to our analysis because they provide a district- and school-level context that is necessary for understanding much of the information provided by individual teachers.

District interviews began in the summer of 2001. Audiotaped interviews lasting 1 to 2 hours were conducted by an individual from our research team. Initial exploratory interviews helped the research team learn more about the district's approach to improving student performance; its approach to the state's standards, assessments, and WSR requirements; and its professional development strategies and events. Interviews also helped discover documents that provided useful information. Depending on the district, 4 to 11 people were interviewed at the district level, sometimes in joint interview sessions. The individuals interviewed included

superintendents; assistant superintendents; directors of curriculum, instruction, and personnel; content area supervisors; directors of professional development; and district business administrators. Follow-up contact for the purpose of verifying information was initiated as necessary.

School-level interviews were held with principals and WSR facilitators (sometimes separately and sometimes jointly), generally took 1 to 2 hours, and were audiotaped. Interview protocols at this level were more structured and asked leaders about their perception of state policies, the school's strengths and problems, individuals' roles in designing their school's professional development program, the nature of professional development in the school, and the challenges faced in implementation.

Interviews with classroom teachers took place in the spring of 2002. Teachers were selected with the assistance of principals who were asked to recommend teachers who would be representative of a range of criteria. These criteria included variation in the number of years of experience, in the degree of engagement in professional development activities, and in the subject areas or grade levels taught. One principal declined to have teachers from his school participate. Principals from participating schools recommended 78 teachers, and 66 agreed to participate and were interviewed. Interviews were conducted by a member of the research team, were audiotaped and transcribed, and lasted approximately 40 minutes to 1.5 hours. Using a structured interview protocol, interviewers asked teachers about the accuracy of their professional development record, the amount and type of follow-up support available, their perceptions of the value of professional development activities, and the level of teacher involvement in making decisions related to professional development. (See Appendix.)

Documents

During the district and school administrator interviewing, a variety of documents was collected, including school improvement plans, budgets, and records related to professional development offerings and attendance. Most documents provided a larger context for

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understanding teachers' perceptions of professional development. In addition, those records pertaining to individual teachers' participation in professional development activities during the 2000–2001 school year were compiled to create individualized records of each teacher's professional development. This process was facilitated by the use of a relational database, which aided in the organization of information. Because only one school in our 12-school sample kept a comprehensive record of its teachers' professional development, these records were assembled piecemeal by our researchers. The results were then used as a focal point of the teacher interviews. Teachers were asked to correct the forms in order to verify the accuracy of our records and then to provide further information about their professional development experience.

At two schools in District C, so little information about teachers' professional development was available before the interview that teachers' professional development records could only be created at the interview sessions, sometimes doubling the length of a typical interview session. Furthermore, it also changed the focus of the session because the interviewer was forced to spend extra time reconstructing a detailed account of the teacher's professional development. Although the effects of this deviation from the interview protocol are unclear, District C's inability to provide information regarding teachers' professional development before the interviews may have slightly altered the type of information provided by District C teachers compared with teachers in Districts A and B.

The project was designed to report district record data to each district in order to facilitate the central office staff's thinking about how to make their professional development program more coherent and improve their professional development data collection and analysis. In the two districts where it was possible to collect enough information to provide feedback, that step convinced us that the data were severely incomplete. However, the process of providing feedback increased our knowledge about each district, as will be described below.

Data Analysis

Audiotapes from the interview sessions were transcribed and coded using a thematic, inductive approach aided by the use of qualitative data analysis software (Coffey & Atkinson, 1996). Seven primary categories of information were identified: demographics, received professional development, follow-up support, impact of professional development, needed professional development, factors influencing professional development, and barriers to implementing and receiving professional development. Members of the research team convened periodically to analyze and interpret the data collectively. The process of data reduction was aided by the use of organizational charts and a cross-tabulation of data, which facilitated the identification of response patterns across districts, schools, and teachers, as well as discontinuities in responses. A number of methods were used to establish the credibility of the patterns discerned within the data: triangulation of data sources across teachers, a search for disconfirming evidence that may contradict established patterns, and peer review characterized by continual feedback and constructive criticism by members of the research team.

Findings

In this section, we first describe the approach to reform taken by the leadership in each district. We then describe the content and coherence of the professional development that districts offered teachers and the influence teachers had on the kind of professional development they received. Third, we present teachers' reports on the impact of that professional development on their teaching.

District Leadership Orientations

District A

School reform in District A was led by the superintendent, who was supported by the assistant superintendent for curriculum. Two interrelated practices characterized their leadership. The first was substantial eclecticism. Both leaders came from outside the district, and they intentionally borrowed ideas from many places and made extensive use of outside resources,

offering their district as a site where developers could try a variety of projects. The district had a close relationship with the nearby state university's school of education, through which it received a great deal of assistance in helping teachers improve their instruction in one subject area. The district obtained assistance from other units at the university, as well. District A also worked closely with a federally funded professional development entity working in the state. The leaders borrowed highly publicized characteristics of districts that had a reputation for being successful, such as the district walk-throughs used in District 2 in New York City (Elmore, 1997). They also hired experts in evaluation and data management—often recruiting from top national universities—to help them analyze weaknesses and develop and manage their improvement program.

The second practice that characterized their leadership was to focus instructional improvement in only a few subject areas. Both leaders reported that when they arrived in the district, they tried to improve achievement in all subject areas, but their attempts were not successful. After a short time, they focused on improving teaching and learning in literacy and chose to deemphasize other subject areas and other possible professional development content. Within a few years, they added mathematics to the small list of focal areas. Efforts to improve instruction were motivated in part by the recognition that test scores had to increase, and district leaders carefully analyzed state test data to identify areas to improve and strongly encouraged educators at all levels to worry about test scores. At the same time, the instructional strategies these leaders adopted reveal an ambivalence about the function and significance attributed to test scores: Leaders emphasized deep-learning teaching strategies supported and endorsed by the state university, the statewide professional development entity, and high-profile national organizations, rather than short-term test preparation.

One way to facilitate change in instruction was to encourage all elementary schools to choose the same WSR program. This program emphasized literacy instruction, promoted a strategy that mixed whole language and phonics so that both decoding and comprehension were

stressed, and included a wide range of professional development activities around its literacy model. The principals appeared to appreciate the WSR program chosen. As one principal explained, "We were fortunate when we chose [WSR] because it is in alignment with where the district is going. . . . We had already started doing some of the things, but the program made it clearer."

When District A schools supplemented the training offered by this program, they usually sought the mathematics professional development assistance offered by the state university. District leaders appeared to be familiar with the research on the importance of subject matter knowledge and coherent approaches to reform.

One indication of the importance district leaders gave to professional development was their response to our offer to provide feedback from the district's records data. The superintendent arranged two meetings that he chaired, at which he was accompanied by relevant central office staff members and principals from the schools where data were collected. The participants believed that our data underrepresented the amount of subject-oriented training offered because it did not include the work of teacher leaders assigned to each school. However, the superintendent arranged for the research team to work with the director of professional development to use coding schemes developed from the data to improve the district's professional development data base.

District B

Most administrators in District B (including the superintendent) had grown up there, but many now lived in the outer suburbs. Although the district contracted with many sources for professional development, the leadership was not aggressive about searching for high-profile sources. District B did not work at all with the state university (although it did work with a local former teachers' college) and took very little advantage of the statewide professional organizations' services. Impressed with the large number of Latino students in the district, as well as the many students classified as having special needs, the leadership provided incentives for all

new teachers to earn either bilingual/English as a second language (ESL) or special education certification by the time they were tenured.

As the state intended, the district gave schools much more leeway in choosing their WSR programs than was the case in District A. Many schools chose process-oriented programs that stressed improving school climate rather than improving teachers' subject matter knowledge. This choice often fit with principals' views that their jobs were student oriented. One principal said, "We're taking [a] personalized approach here. We get to know all the students by name. If they sneeze, we know about it. . . . We've had the best [student] attendance in the school district . . . [for] the last 3 years." Although many educators in District B agreed with this personalized approach, principals often found that their WSR programs did not provide enough subject matter instruction for their staffs and looked to other sources, often private consultants.

When the research team provided feedback on professional development data in District B, the superintendent was not present, but two central office staff members and a few school representatives were. Although participants had some questions, there was no clear follow-up. Further discussion with the district liaison to the project indicated that however incomplete the analyzed data may have been, he anticipated trouble getting even that much information in the future. There seemed to be little interest in refining the district's approach to professional development. Meanwhile, the liaison said, everything in the future would be judged in terms of how it contributed to the improvement of test scores, which appeared to be an end in themselves. According to a principal, test scores "make [a] world [of] difference. You [are] looked at in a different light by everyone. I think there's more to education than test scores, but unfortunately, everybody's looking at the test scores. So you have to go by them."

District C

The superintendent in District C was as eclectic as District A's superintendent, but he had not hired skilled outside staff in top positions. His strategy for improvement was to focus on improving principal leadership. Indeed, the district won a major national grant during the period

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of this research for principal improvement, but professional development for teachers seemed to receive lower priority.

Primary responsibility for professional development centered in the curriculum office, but the leader of that unit did not provide strong overarching direction for his staff. Especially interested in literacy, he left professional development in other subject areas to the curriculum experts in those areas. One indication of this lack of coordination was that, in contrast to both Districts A and B, District C had no central source of information on what professional development was offered or who had attended. Thus, as noted previously, even after visits to many district offices, the research team was unable to obtain even rudimentary information regarding the professional development teachers had received from district sources. At the end of 1 year of data collection, the research team reported to the superintendent that the team was unable to collect enough information to prepare a report. The superintendent then reassigned the role of liaison with the project to another district official. Several months went by while this official, new to his job, got his office operations in place. Only then did he turn to the research team and begin to work on the problem of refining a data collection process.

Similar to District B, District C gave schools considerable leeway in their choice of WSR programs, and there seemed to be a mix of prescriptive, subject-oriented, and process-oriented programs. Moreover, principals gave the impression that they were more on their own with regard to professional development than in the other districts. Most professional development was either school based or resulted from teachers deciding on their own to pursue available options.

Professional Development for Teachers

Table 2 summarizes the patterns of professional development in districts A, B, and C. The following section describes the content and coherence of professional development available to teachers in the three districts.

Content

The three districts each emphasized different kinds of content.

District A. District A stressed a subject-oriented approach with a heavy emphasis on teaching strategies related to specific subject areas. The district bent the state rules governing WSR to get most elementary schools to choose a specific program that focused on literacy in a way that met district leaders' approval. This program was prescriptive rather than process oriented (Erlichson & Goertz, 2001), and improving reading and writing was central to the model. After 2 years of implementation, the district also began to include training in mathematics through a supplemental program run by math specialists from the state university and state professional development entity, and later, with the assistance of staff from the WSR program.

Ten of the 28 teachers interviewed in District A found learning subject knowledge through professional development events to be useful. Teachers realized that without knowing the subject matter, they could not have made the curricular changes that were expected from them. According to one teacher:

> The [professional development sessions] that I took over the summer [were] helpful because we had a new math program in the district. We . . . went through all the activities in the book and how to do them. . . . It helped the year start off right because for the teachers who did not go, [they] could really not know what to do with the new math.

As a subject-oriented program, professional development activities focused on topics that were "close to the classroom," emphasizing the skills and knowledge that teachers needed to change and improve instructional practice. Half of the teachers in District A reported that training in teaching strategies was helpful. These strategies included methods for student-centered instruction in which students actively participated in the learning process, group work that facilitated student discussion and collaboration, assessment strategies that helped students regulate their own learning, and ideas for how to relate content with a context beyond the classroom.

Subject-oriented professional development does not address the needs of teachers who do not teach the subjects emphasized. High-school teachers are especially likely to teach subjects

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differentiated by discipline. Six of the 28 District A teachers said that the district's professional development program did not meet their needs. Most were in the high school, and they complained that the professional development they received did not touch on their subjects. To stay "close to the classroom," District A modified its subject-oriented approach in the high school to focus on more generic teaching strategies that could be applied across the disciplines. This enabled the high school to offer uniform development activities to all the teachers. Still, this professional development lost its subject-specific focus, and, as one teacher said, "The district does offer some computer training, but it's more elementary and it doesn't apply to my algebra class." A calculus teacher also complained about lack of professional development in his area. A third teacher expressed dissatisfaction with the lack of subject-specific modeling:

> It was more of a general training than . . . relating to math. . . . [The trainers were] giving me all this information, but now how do I apply it to what am I teaching? A lot of the response was, "Well, that's where your expertise comes." That's easier said than done.

Although District A focused on subject-specific professional development, it also had other professional development activities. One was a new teacher mentoring program that offered training sessions for new teachers and their mentors. Thus, district leaders recognized some particularized teacher needs. Another example of flexibility within a well-defined structure was the district's course reimbursement program. Through this initiative, teachers were reimbursed for graduate course work taken in their discipline or specialty area. Course reimbursement helped high-school teachers get some subject-specific professional development in areas not covered by the main district programs.

In spite of these opportunities, some professional needs were still unmet. Teachers in outlier subjects, such as special education, could not always find local professional development in their areas. There were also time constraints. District A administration was reluctant to release teachers from instruction time, but, of course, if teachers cannot participate in professional development activities, they are deprived of potentially useful information and innovative

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materials. An elementary-school teacher spoke of the difficulty in attending professional development workshops offered during the school day. Although she wanted to strengthen her science knowledge, she could not be released from class "because one teacher already signed up and [administrators] can't get a sub for you, too. . . . They don't want all the first-grade teachers out at the same time."

District B. District B's approach was more student-oriented than subject-centered. This district gave schools more autonomy in choosing their WSR models, and they chose process-oriented rather than prescriptive models. District B's leaders said they chose student-centered programs because of the district's high poverty rate and its 90% Latino population. District leaders thought that helping teachers know the students through professional development would make the teachers more effective. Even so, the schools deemphasized their WSR models much more than in District A and supplemented model-based training with other events. Generally, the district favored events focusing on student motivation and behavior, discipline, classroom management, school climate, and ESL students. The orientation to content about students was also evident in District B's policies encouraging all incoming teachers to get certified as bilingual or ESL teachers. The district offered to fully reimburse the coursework required for these certifications.

In contrast to District A, only one District B teacher reported that the subject-related information provided through district professional development was useful to her, and she provided very few details. Almost half (8 of 17) of the teachers interviewed in District B reported that training on motivation and behavior was useful. Parental involvement promoted by the WSR model also contributed to increased teacher awareness of children's lives. District B teachers did not link motivational strategies directly to instruction. Teachers could not tell us how better rapport leads to learning.

Another professional development content focus in District B was technology. About one third (6 of 17) of the teachers in district B said that technology training helped them to implement

critical thinking skills, motivate students, and track students' progress. Although teachers discovered the usefulness of technology, they had to reconcile implementation of their newly acquired knowledge with the reality of their classrooms. Teachers complained about both the insufficient number of computers in their individual classrooms, as well as mechanical problems:

> I really wanted to get into the [Microsoft] Excel [program] and do different math projects [with it], but I can't depend on the computers I have. They're down half the time. These kids are used to the fast ones. They get turned off when they have to sit there and wait.

District C. Although District C had a less coherent strategy than either of the other districts, it did offer professional development. It was difficult to tell how much these offerings emphasized subject matter as opposed to student needs or general teaching strategies in its professional development. The district had a mix of WSR programs, some of which were highly prescriptive and subject oriented. However, less than one fifth (4 of 21) of District C teachers reported that training in their teaching subjects was useful. Three teachers said they incorporated what they learned on poetry, prose, writing skills, and reading strategies, and another teacher mentioned learning in general terms. Three of the subject-related professional development events took place out of the district.

Also, less than one fifth (4 of 21) of district C teachers found training on teaching strategies useful. The professional development teachers received in this area included workshops on keeping students' records, developing comprehension questions, structuring projects, and developing open-ended questions. One quarter (5 of 21) of the teachers found learning about the students to be useful. Teachers learned strategies about motivation and behavior linked to instruction, learned strategies to increase attendance, and received training on diversity.

Coherence

The different approaches districts took to professional development led to different levels of coherence.

District A. District A had the highest coherence. Teachers received professional development that supported the educational goals of the district and the state. This high level of coherence throughout the educational hierarchy was promoted by the district's heavy emphasis on subject-specific professional development provided primarily through one WSR program. The district chose that program because it fit with a previously existing approach to curriculum. District leaders incorporated the ideas behind the program into their mission statements and school and classroom supervision processes so that a very coherent approach was maintained.

Coherence also includes delivering the professional development in a mode consistent with the pedagogy that is being presented to teachers. In District A, where active learning was the expected pedagogical approach, group work and discussion were used to structure the professional development opportunities. Almost two thirds (17 of 28) of District's A teachers appreciated the hands-on learning and learning by modeling that they received. These experiences involved teachers playing the role of students to solve problems with peers, practicing new strategies in workshops, and interacting with grade-level peers or subject-area coaches who modeled and observed lessons in the classrooms. Teachers observed each other's classrooms and took turns leading teachers' professional development meetings.

To ensure the successful implementation of the programs, some schools used weekly grade-level or full staff meetings, which reflected the district's emphasis on professional development that is continuous, supportive, and promotes reflection among teachers. During these meetings, teachers shared instructional methods and discussed content knowledge. One fourth of District A teachers found these meetings useful. Teachers from District A viewed themselves as learners. One teacher described a meeting in which "there was a debate about what a [statistical] range was. How a range should be included . . . I forget how the conversation went, but it was very interesting because as adults, we're sitting here and debating what a range should be."

District B. Professional development in District B was more flexible but less coherent than in District A. Schools tailored professional development to the perceived needs of the students and staff, and teachers had more choice in the events they attended. Offerings were more varied, and teachers were encouraged to use their judgment in determining which would best address the needs of their students. As a consequence, professional development activities differed from school to school and teacher to teacher, although the selected events emphasized a limited set of topics. With such variation, district support was limited to a monthly teachers' meeting that was found useful by only 3 of the 17 teachers. Coherence was intentionally limited in favor of individualized learning.

This variation was apparent in the District B's use of WSR programs. As the state intended, the district used a variety of programs, but it did not support them to the extent that District A supported its single program. In fact, many schools chose to supplement their WSR programs with other training opportunities. Only 2 of 17 District B teachers said that their WSR programs helped them improve their teaching.

More generally, six District B teachers found follow-up support missing. That is, teachers did not receive the materials designed to accompany the training, and the teachers' supervisors did not understand and reinforce the new practices. About the same number (seven) of the teachers said that poor student behavior was an impediment to the successful implementation of professional development. Four of these teachers worked in the high school. One, summarizing the problem, said the administration does not

> have the time to get done what would be nice to get done because [they're] always being pulled out for a parent meeting, always getting pulled out for a fight, being pulled because of some other crisis that's happening. Unfortunately, we exist by crisis. Maybe not the teachers as much, but the administration.

With the administration occupied with other issues, teachers not only lacked support for new initiatives but also felt alone. A veteran teacher commented, "No, the only change I [have] seen is teachers are left alone to fend for themselves more now than ever."

District C. Although the limited coherence in District B was intentional, the lack of coherence in District C appeared to result from an internally fragmented central office. Within the curriculum office, specialists in different disciplines prepared and presented professional development in isolation from their peers and did not share information. Although the district offered professional development activities, interviews with teachers suggest such events were neither continuous nor tied together and had no clear or systematic connection to the state's educational goals. As a result, teachers looked for professional development opportunities outside the district and asked for reimbursement. Almost half of District C's teachers found that offsite learning opportunities were helpful in providing knowledge about content, strategies, and curriculum.

Budgetary issues also limited coherence, limiting teachers' ability to bring newly learned strategies and philosophies into their classrooms. One quarter of the District C teachers said that money problems impacted activity planning or implementation. Follow-up workshops could not be scheduled because funds had been frozen. There was no budget to purchase books and materials for new activities. Teachers could not attempt some new strategies without the necessary materials: "It's all fine to present an activity and go ahead and do it. But [sometimes] the school doesn't have the money to buy the [tools]." In some situations, the amount of money needed by teachers was relatively small. A teacher in District C wanted a cart to transport technology from room to room more easily. The district spent a lot on professional development but did not make the small additional investments to enable teachers to take the next steps.

Lack of time was mentioned as a problem for seven of 21 District C teachers. Common planning time was scheduled, but teachers' absences prevented the coverage necessary to enable teachers to meet. In one school, gym periods were cancelled indefinitely, eliminating the planning

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period. In the same school, teachers complained that WSR-mandated activities required inordinate amounts of time, reducing time needed for lesson planning and grading student work. In the high school, teachers described difficult schedules with six classes per day and 140 to 145 students per teacher as a major barrier to collaboration. Using E-mail and late-night phone calls, they tried to share information and planning despite their workload. These time constraints limited teachers' opportunities to reflect and discuss teaching strategies.

Coherence in District C existed in individual schools, such as when several teachers received the same professional development or when a group of teachers met weekly to talk about administrative issues and students' work. This sporadic coherence was largely the result of WSR programs that offered highly structured, consistent professional development models to all of the teachers in a given school. In one school, teachers explained that the WSR trainers came in as many as five times each year to help them. According to one teacher, "The people from [the WSR model] come in, observe you, make sure you were following the schedule step by step, in the order that you've been trained."

Not all WSR programs delivered this level of coherence. For instance, teachers in one school were unsure whether the WSR program used technology as content knowledge or as a tool that should be integrated in the classroom across content knowledge. At another school in District C, teachers complained that the professional development presenters sent to the school by the WSR model disagreed with each other about teacher tasks. One teacher commented:

> We were getting so frustrated because they would have one trainer tell us to do our units one way, and then the next time someone [else would say], "No, no, no, no. You need to rewrite this." It is frustrating. Make up your mind what you want us to do and we will do it.

In addition, this model did not provide specific training for the needs of new teachers, including one who said, "Of course it seems worse to me because I am new and everything is

overwhelming in the beginning. How can you write a unit [when] you don't know the scope and sequence of anything you are teaching yet?"

When the WSR programs lacked coherence, teachers were extremely frustrated. According to one teacher:

It's supposed to be a change in the way students do things. I don't see that it's going to help the students, even if it's a change in the way we do things. Is it going to raise a percentage on the testing? That's what they say it's supposed to do. I don't think so.

On the other hand, in schools that had more coherent WSR programs, teachers reported:

They don't just put you in the program and then leave you to sink or swim. They have a program [for which] national statistics show that the program has met success; students have met success using that program.

Teacher Perceptions of Professional Development

The impact of professional development on teachers' reports of their practices varied among the districts as a result of different levels of coherence and content focus. Each one is described in turn. (See Table 3.)

District A

Two fifths (11 of 28) of the teachers interviewed in District A found their model useful. Teachers reported that the consistent use of the model's literacy program provided useful guidance that was very different from what they had received in the past. According to one teacher: "It's not what you were taught when you were at college. It's not what I saw when . . . I did my student teaching. The schools that I was in didn't follow that. So it was hard." They also said the program raised their expectations. Another teacher explained:

Before [the WSR program] came, the writing expectations for the kindergarten group [were] much lower. And when they first came, it was like, "Are you sure? You understand that these are five-year-olds?" But what I have learned is that if you give them the expectation, they will strive to reach that expectation.

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In District A, teachers reported that the focus on subject knowledge and standards helped them to build their expertise in math and language. More than one third (11 of 28) of District A teachers reported learning new subject matter knowledge or ways to communicate it, including math concepts and elements for a composition (e.g., similes and metaphors). Learning subject knowledge helped teachers to teach literature analysis and writing while maintaining the focus on standards.

District A teachers also reported that professional development encouraged the implementation of authentic pedagogy, that is teaching methods that required students to learn discipline-related content through active inquiry (Newmann, 1996). More than two thirds (20 of 28) of District A teachers described movement in that direction. Teachers attributed students' engagement in authentic learning to the adoption of that district's WSR program and its approaches to math, literacy, and language arts. Several teachers said that these approaches were structured so students made discoveries for themselves. A teacher talking about her changes as a result of these workshops said she was "definitely [doing] more cooperative learning and pairing up, working in threes and fours, going around observing and assisting where needed, rather than setting the whole activity up, then guiding the whole process." Systematic and instrumental teacher education on the foundations and structures of these programs provided teachers with clear guidance on how to deal with active learners. The fact that both math and language programs required the same type of teaching strategies may have contributed to teachers' understanding and consistency of the implementation of teaching strategies.

In contrast, only one tenth (3 of 28) of the District A teachers described using more direct instruction. In these interviews, direct instruction refers to a teacher-centered approach in which the teacher is active in providing theories and rules, which students then practice until they achieve mastery. Across the three districts, most of the instances identified in this category in our data referred to teaching test-taking skills and phonetic awareness. None of the District A teachers said they had an "eclectic style" that combined both authentic and direct instruction.

Unlike teachers in the other districts, those in District A recognized specific teaching strategies and could describe them concretely. They reported that they presented problems differently, used manipulatives in math, let students work in groups to explore concepts, engaged students in mathematical conversations, and let students figure things out on their own with minimal guidance. As one teacher explained, "I learned to back off and not ask as many direct questions." Three teachers mentioned connections with real life in the areas of math, history, and literature. Finally, most District A teachers said they gave children a chance to reflect on their work using rubrics and asking for explanations of how and why students did what they did.

District B

Less than one fifth (3 of 17) of District B teachers said they learned subject-matter knowledge. One teacher said that the technology knowledge she gained changed the way she taught other subject areas. Two teachers mentioned that deepening their knowledge of the standards helped them focus on the lessons. None of the teachers mentioned learning about academic subjects, as in District A.

In District B, about one third (5 of 17) of the teachers reported that they had moved toward a teaching style that encouraged authentic achievement. Reasons for changes included both the WSR programs (District B adopted several) and the incorporation of technology and other materials that changed teaching strategies. However, these explanations did not allude to teachers' learning of new pedagogical paradigms. For example, one professional development provider encouraged the use of group work, but teachers' understanding of that strategy was superficial. According to one teacher:

> I think it's very nice to do collaborative learning. Sometimes, I think it's overdone a little . . . but the fellow from the [provider] was kind of encouraging us [to] work in pairs, more [often] than [working in] groups of four. And I hadn't done that as much and I think there are a lot of times that that's more effective than four.

In keeping with the focus on students, District B teachers (6 of 17) were the only ones to describe themselves as using multiple intelligence approaches. These approaches allowed some students to become more active learners but were not linked to the idea of teaching effectively as were more authentic approaches. District B teachers (6 of 17) mentioned direct instruction slightly more often than authentic instruction. Six teachers talked about using that approach, and only one reported using an eclectic approach.

One might have expected the heavy emphasis on understanding students to help teachers develop more personalized ways to motivate students to work on assignments or ways to craft assignments to meet student needs. If anything, the opposite occurred. One third (6 of 17) of District B's teachers argued that the new strategies they learned would not motivate their students. One teacher said:

> Sit in my school, teach my kids. I think they should water down everything. I'm not saying these kids cannot be taught. I think they need to be watered down, step by step . . . and you have to step back and know where they're coming from. These kids have a lot of emotional baggage and that hinders learning.

It is difficult to know if low expectations preceded the professional development or resulted from it. If nothing else, the professional development that District B teachers received did little to mitigate a view that their students' difficulties were immutable and not something that could be changed with better methods. This view was voiced more often in District B than in the two other districts.

District C

In District C, which had the least clear district-level focus in its professional development activities, one third (7 of 21) of the teachers said they learned new subject matter, but they did not link the subject matter to state standards. As a result of limited coherence, teachers in different schools received very different professional development. Every teacher deepened his or her

knowledge in different areas, which included using math manipulatives, reading, writing, and spelling to implement phonics instruction.

Less than one third (6 of 21) of District C teachers reported implementation of authentic teaching. More than in other districts, teaching strategies varied from teacher to teacher. Every teacher attended different events, from 1-day workshops to university courses; although some teachers learned about group work, others learned about student-centered instruction. Moreover, some teachers could not explain the instructional changes they had made in the same detail as District A teachers. For example, one teacher said, "Now kids do a lot of . . . independent work, and I sort of have to sit and let them."

Student-centered instruction was mentioned by four District C teachers. Three teachers mentioned group work, and three identified themselves as facilitators. None of the teachers commented on real-life connections, and only one reported providing students with time for reflective thinking. About an equal number (three) mentioned direct instruction, and two also mentioned that they had "eclectic teaching styles."

Fragility of Coherence

During the fieldwork for this project, District A appeared to offer the most coherent, subject-oriented professional development of the three districts that were studied. This coherence was highly dependent on the superintendent and the leadership team he assembled. As the research ended, the superintendent announced that he would be taking a job in another state. After he announced his departure, district administrators reported that he had been unable to get the board to confirm key hires in the past year. Although the research team did not track the community dynamics surrounding the district, it appears that the eclectic approach, which fit well with current research-based recommendations and appeared to be influencing teachers, was not well received by those who influenced school board elections.

Conclusions

These three cases suggest how districts create coherence in their professional development programs. One factor appears to be the nature of district leadership. These support earlier speculation that a dominant coalition can set a direction for district reform (Firestone, 1989). Coherence should be easier to achieve when leaders share a vision of the district's direction toward improvement and when superintendents hold a status similar to other individuals in the leadership group. Both District A and District B appeared to have such coalitions, but such a coalition was lacking in District C.

Another factor in creating coherence is intentional choices about how to prioritize professional development. Not all districts may choose to prioritize professional development. At the extremes, professional development was a top priority in District A and not in District C. In District C, the superintendent focused more attention on leadership building than on professional development for teachers.

These three cases suggest two challenges to designing a coherent program. The first is focusing on specific content areas. Although a growing body of evidence suggests that focusing professional development on specific subjects is useful, each district faces a variety of centrifugal forces. Not all teachers teach the target subjects. It is difficult to choose to pay less attention to some subjects in order to focus on others; the teachers of the ignored subjects—and some external groups—are likely to object. There are ways to conceptualize district needs that are not subject based (e.g., new teachers as opposed to experienced ones, the needs of ESL learners, or children with diagnosed difficulties). Some of these needs are, in fact, mandated by law and are difficult to ignore when attempting to focus on something else. Thus, the issue of content focus creates a dilemma: Choosing to prioritize some areas means choosing not to prioritize others.

The other challenge is the classic problem of time and funding. We have a better understanding of the structure of effective professional development—ways to apply constructivist learning theories to adult development and the utility of building professional

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communities. However, in practice, professional development in many locations still appears to be foundering on seemingly straightforward problems that have now been documented for decades, problems such as the need for time to meet and plan and the need for supporting materials that teachers are supposed to be using (Corbett, Dawson, & Firestone, 1984).

At the same time, this study suggests the risks involved in aggressively following a course that approaches recent prescriptions for how to improve student achievement. The superintendent and leadership team in District A borrowed extensively from experts across the country in order to bring at least one version of best practice to their district. However, this borrowing and extensive change was not appreciated in the local community. Reforms in District A appeared to collapse amid the politics that so often surround urban school districts (Anyon, 1997).

This comparison of cases lends support to the small but growing body of evidence suggesting that districts can significantly guide the process of educational improvement. In each district studied here, administrators at the highest level set a pattern about how professional development should be organized. Sometimes, as in District A, this was done quite proactively; in others, as in District C, it was done by prioritizing other improvement strategies and giving less attention to professional development. These top decisions shaped the design and execution of professional development in each district. Moreover, the kinds of learning that teachers reported were well aligned with the professional development they received.

With a relatively small number of cases and our inability to measure teacher learning over time, these results are more suggestive than definitive. Nevertheless, the clarity of these patterns is important because it occurred under less than ideal circumstances. All three districts served predominantly poor and minority students, and all of them operated in a highly regulated and intrusive policy environment where the nature of state regulation changed frequently. Yet despite this instability, these cases suggest that district leaders can set a course with regard to at least one pathway for influencing teacher thinking and action: professional development.

Table 1

Demographic Characteristics of Participating Districts

	District A	District B	District C
Total Enrollment	7,500	11,000	12,000
Total Certified Staff	616	869	1114
Ratio of Ninth- to Twelfth-Grade Enrollment	1.89:1	1.35:1	1.92:1
White (%)	1	5	5
Black (%)	78	1	70
Hispanic (%)	20	93	23
On Free or Reduced Lunches (%)	58	80	69
High-school Attendance (%)	90	95	86
Passed High School Proficiency Test (%)	61	60	33

Table 2

Administrative Approach and Professional Development Characteristics by District

	District A	District B	District C
Basic Approach	• Superintendent comes from outside the district. • Extensive use of outside resources, including connections with universities and curriculum developers. • Focus on deep learning of math and literacy. • Encourages schools to adopt the same WSR program.	• Superintendent is from the district. • No aggressive search for outside resources. • Focus on ESL and school climate. • Test scores are an end in themselves. • Schools have flexibility to adopt the WSR of their choice.	• Cosmopolitan superintendent. • Focus on principal leadership. • Use of outside resources in that area. • Leeway in choice of WSR program.
Content	• Curriculum-centered: Driven by the WSR model. • Professional development focuses on teaching strategies specific to subject areas. • Teacher-centered: Includes opportunities for graduate coursework.	• Student-centered: Focus on understanding student behavior. • Teacher-centered: Responsive to teacher preferences to build motivation. • Knowledge that students' motivation is not linked to students' learning.	• Varies from school to school and teacher to teacher as a result of fragmented district professional development design.
Coherence	• Great coherence because of near-uniform adoption of one WSR model that supported district educational goals. • Delivery embedded in schools' daily routines and emphasizes collective improvement. • Support widely available from colleagues. • Professional development consistent with the promoted pedagogy: active learning, modeling, and hands-on methods.	• Absence of coherence because the design is aimed at meeting individualized needs and offers varied professional development events. • Lack of subject-oriented instruction from WSR programs combined with external sources of professional development, which compromises coherence.	• Coherence limited within school coherence and dictated by the respective WSR model. • Irregular district professional development events with no clear and systematic connections to state educational goals. • Heavy reliance on outside experts for offsite workshops.

Table 3

Teacher Impact by District

	District A	District B	District C
Understanding of Content Knowledge	• Learning knowledge about standards in the areas of math and literacy helps teachers to focus and to improve students' work.	• Very few teachers report learning content knowledge about technology and standards. • Learning standards helped teachers to focus more.	• Teachers report learning different kinds of content knowledge. • Teachers do not link content knowledge with standards.
Understanding of Authentic Teaching	• Implementation of authentic pedagogy results from WSR model and its programs. • Teachers analyze, interpret, repackage, and recognize specific teaching strategies, which reflects their deep understanding of authentic pedagogy.	• Incorporation of technology drives teachers to implement some authentic teaching strategies. • Superficial understanding of these strategies. • Emphasis on multiple intelligences.	• New strategies vary from teacher to teacher. • Teachers have difficulty identifying the details of the different teaching strategies.
Use of Direct Instruction	• Few teachers use direct instruction.	• More teachers use direct instruction.	• Combination of direct instruction and eclectic teaching.

Appendix

Teacher Interview Questions

1. How accurate was the professional development list we created and distributed to you?

2. Were any of these activities related to each other? How?

3. For which of these activities do you receive follow-up support?

4. In general, what have you learned in the past year that has helped you improve student learning?

5. What item on the list was most useful or helpful to you? What did you learn from the experience? What made the activity helpful to you?

6. What changes have you made in your classroom teaching in the past year or two? Why did you make these changes? Which elements on the list do these changes tie into, if any?

7. What other activities would be most useful for your professional development?

8. Besides these formal professional development events, how often do you talk with other people in this school about improving teaching? With whom? In what setting? What do you discuss?

9. What opportunities do you have to influence the professional development priorities in this school? How satisfied are you with the influence you have? Why?

10. How long have you taught? How many years have you taught at this school? What certifications or degrees do you have? Are you working on any other degrees or new certifications?

11. Would you mind if we contacted you for further information in the future?

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