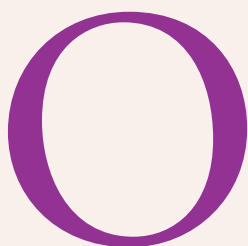# Complex project, concrete steps

BY CAITLIN HOWLEY, BARBARA HICKS, ANITA DECK, AND JOY RUNYAN

Ongoing site-based professional development is a much more complex endeavor than old-style teacher workshops conducted in isolation from the immediate context of the school. Site-based professional development asks teachers to identify and improve the components of their instructional programs that are not working, a process that is sometimes painful and arduous. External facilitators involved in site-based professional learning face the challenges of both the complexity of the work and unpredictability of school environments.

Staff at the Appalachia Eisenhower Regional Consortium for Mathematics and Science Education have learned to increase teachers' capacity to effectively teach math and science and improve student achievement through ongoing site-based professional development — and learned a number of lessons along the way that can benefit external staff developers working within schools.

1. INVOLVE STAFF

When administrators make a unilateral decision to work with a professional development program, the teachers who will be most involved in program activities often are not motivated to cooperate fully (Fullan, 2001; Louis, Marks, & Kruse, 1996; Louis & Miles, 1990).

When the consortium first began its work, state-level educators and leaders in other professional development initiatives nominated schools for the project. Many of the schools desperately needed to improve, but the staff lacked a sense of efficacy about their ability to undertake change. Staff need to be poised for change, open to new initiatives to help their students, and willing to make time for project activities.

Teachers are more likely to change their practices when schools choose to participate in a change initiative to meet their own needs rather than having district administrators select a project for them (D'Amico & Corbett, 1988; Fullan, 2001; Honig, 1994; Louis, Marks, & Kruse, 1996; Louis & Miles, 1990; Slavin, Dolan, & Madden, 1994). In addition, participants must have ample opportunities to discuss and select at least some components of a project that will affect their classroom instruction and take up some of their planning time as well as personal time after school.

Based on our experiences, here are our recommendations for staff developers:

- Convene meetings with all stakeholders before making or accepting a commitment.
- Look for funding sources for teacher stipends for after-hours professional development.
- Provide choices in the program being offered. Sites have unique needs, and teachers are more likely to participate fully when they choose some strategies to meet those needs.
- Be explicit about the amount of time needed for project activities.
- Use a Memorandum of Understanding specifying the roles of the technical assistance provider and the site administrator.

2. ENGAGE ON-SITE LEADERSHIP

Schools require strong, shared leadership to promote a professional collaborative culture (Corallo & McDonald, 2002; Fullan, 2001; Goldman & Dunlap, 1990; Rosenholtz, 1989; van der Bogert, 1998; Whitford, 2000). Schools in which faculty interaction is collegial, and teacher talk and collaborative work are focused on curriculum, instruction, and assessment, have experienced dramatic improvements in student achievement (Fyans & Maehr, 1990; Louis, Kruse, & Marks, 1996; Thacker & McInerney, 1992; Walsh & Sattes, 2000). The consortium found that teacher participation in the project was greater, and project activities had more impact, when the principal actively supported project activities.

The project's success and the success of the process largely depended on engaging the principal's support. Based on our experiences, here are our recommendations for staff developers:

- Ask the principal to attend project meetings and actively participate in the collaborative learning community.
- Use a Memorandum of Understanding to outline the resources the project will provide and the resources, including teachers' time, that the principal will provide.
- Ask the principal to recognize and reward teachers for their extra work on the project.
- Determine whether documentation from the project could be useful in other reports or projects currently implemented in the school or district.
- Discuss with the principal the number of outside initiatives already operating in the school and suggest limiting the introduction of new projects for participating teachers during your project.
- Enlist a teacher leader to fill this role if the principal is not available due to other commitments.

3. COMMUNICATE WITH THE SITE

Successfully coordinating a full year of project activities requires a deliberately managed flow of information among project staff, participating teachers, principals, and district administrators. Consortium staff learned early to adjust strategies for maintaining communication with intensive sites. Initially, project staff overestimated the extent to which school staff use e-mail. As the project continued, good communications grew through the ongoing support project personnel gave to emerging e-mail users. Although schools implemented technology to varying degrees, project personnel usually found one staff person who was adept at sending and receiving messages. This person often became the liaison between project staff and participating teachers.

To build effective communication with administrators and staff, we recommend the following:

- If a district has issued e-mail addresses to teachers, request a list of those addresses from the issuer and remind participating teachers of their personal login ID and password in writing.
- Include a clause in the Memorandum of Understanding that assigns responsibility to a school staff member for communicating last-minute schedule changes at the school to project personnel.
- Learn about state and local technology initiatives and encourage schools in the project to take full advantage of them.
- Be patient and encouraging with emerging e-mail users.
- Administrators routinely overestimate teachers' access to e-mail. Offer an alternative to busy computer lab schedules to ensure teacher access.

4. BE FLEXIBLE

No matter how well-planned a project may be, implementing it can have implications for both its content and process. While preserving the project's integrity is important, professional developers also must make the project relevant to each set of participants and accommodate unexpected changes in the needs and commitment levels of participating schools. The relevance of a project to individual and school goals is vitally important (D'Amico & Corbett, 1988; Honig, 1994; Louis, Marks, & Kruse, 1996; Louis & Miles, 1990; Slavin, Dolan, & Madden, 1994; Walsh & Sattes, 2000; Whitford, 2000).

Based on our experiences, we make these recommendations to staff developers:

- If you begin your project using certain tools or materials but later find more recently developed and better ones, incorporate them into project activities.
- If the knowledge and capacity of project participants changes due to staff turnover, be prepared to adjust your services. When first-year teachers replaced retiring veteran science teachers at one site, consortium staff adjusted the professional development to provide

induction activities to acquaint new teachers with the project.

- If the principal and other key school personnel are replaced, be prepared to show results and why the program is important. Be willing to adjust to meet the goals of new participants.
- If states change their standards and assessments during the project, work with teachers to adjust their instructional design process and design classroom assessments aligned with the new standards.

5. ENCOURAGE COLLABORATION ACROSS THE CURRICULUM

Research suggests collaborating across curricular areas to improve the articulation and coordination of the entire curriculum (Burns, 2001; Drake & Burns, 2004; Elmore & Rothman, 1999; English, 1980; English & Steffy, 2001; Jacobs, 1997; Marzano, 2000; Mitchell, 1999, 1998; Schmoker & Marzano, 1999; Wishnick, 1989). The consortium's project originally focused on either mathematics or science at each site to correspond with the goals of the grant. In a fortunate development, teachers from other content areas began participating in project activities as the work gained momentum.

At some sites, principals wanted

Consortium provides teachers with learning in math and science

- From 1992 to 2005, Edvantia operated the federally funded Eisenhower Regional Consortium for Mathematics and Science Education for the states of Kentucky, Tennessee, Virginia, and West Virginia.
- This program provided professional development and technical assistance to mathematics and science educators.
- The organization convened key stakeholders interested in reforming mathematics and science teaching and learning, and disseminated resources to more than 1.1 million clients between 1998 and 2005.
- The consortium's professional development cadre also provided professional development to more than 118,600 educators across the four-state region.
- The Intensive Site Project described in this article is one of several of the consortium's initiatives.
- The Intensive Site Project was carried out in 16 schools and involved 173 teachers and 5,023 students.
- According to data from the 2003-04 school year, 69% of mathematics and science score sets indicated improvement during this reporting period.

to include all teachers in the professional development. The scarcity of full days devoted to professional development made principals reluctant to split staff into content areas for separate activities when one group already was involved in high-quality professional learning that could be shared with the rest.

In some cases, the project's processes and tools were well-suited for use by teachers across content areas. For example, an online curriculum alignment system helped teachers keep track of how well their lessons were aligned with state standards, a tool that could be used by all. The consortium also helped teachers use an online benchmark assessment system. Because both online tools

accommodate all content areas generally assessed in most states, they were as useful for teachers of reading and social studies as for teachers of mathematics and science.

As a result of these experiences, several principles for fostering and sustaining cross-curriculum teams emerged:

- Work with the principal to schedule time for professional learning teams to meet.
- Promote a sense of partnership by encouraging individuals' active involvement, by discussing the work of shared students, conducting a book study, or prioritizing needs.
- Consider using a tool to unite the different content areas, and then

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focus on one or two areas (e.g. reading and mathematics).

- Communicate regularly with the teams, either face-to-face or by e-mail.

6. INSTITUTIONALIZE CHANGE

School change and reform are notoriously difficult to sustain over time (Fullan, 2001). The consortium sought to mitigate some of the challenges to sustained reform, primarily by seeking to institutionalize the changes with school staff. Three strategies in particular proved helpful:

- Linking project activities to already-established school routines, processes, or cycles.

In one school, for instance, staff developers asked teachers to document new practices they attempted in an activity journal that they already used. The principal discussed these journal entries with teachers as part of their regularly scheduled evaluations. As a result, meaningful project efforts were connected to an existing school routine.

- Introducing and supporting the use of technology tools that would remain in the school beyond the life of the project.

Although external staff developers will not continue to provide technical assistance and support after the project ends, the online assessment tool allows staff to collect and analyze student data as they plan and improve instruction.

- Cultivating co-facilitators at each site, teachers who were responsible for moving project activities forward between visits from the outside facilitator and who kept communications flowing.

By assuming greater responsibility for the project's success, these teachers positioned themselves to provide ongoing leadership and facilitation of project activities without the assistance of an outside facilitator.

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Independent School District. (central office, principals)

- How is professional development evaluated? (central office, principals, teachers)

NSDC's specialists then analyzed the data to determine to what extent each of NSDC's 12 standards for staff development was being implemented.

REPORTING RESULTS

Gathering and summarizing data is valuable only to the extent it is used. An important use for the work is communicating to key constituents. On the team's final day in the district, members met with the district's professional development staff and senior leadership to provide an oral exit report and alert them to members' initial observations about emerging patterns and a few basic recommendations. After the NSDC team members individually analyzed data off-site, the organization completed and sent a final report within two weeks.

The next step was to bring the full findings to the superintendent, chief academic officer, and other senior leadership to gain support. The professional development department would need senior leaders' authority to influence the district as a whole to make changes. The district director of professional development wrote a brief executive summary outlining 10 recommendations in the categories of content, process, system, and evaluation (see p. 48). With the cabinet's approval, the 10 recommendations were then presented to other key senior leaders, associate superintendents, and all curriculum and instructional support directors.

Once stakeholders were aware and supportive of the recommendations, the district's director of professional development began setting goals and specifying actions for working across the system to improve professional development.

The recommendations drove the work of the professional development department and its work with other departments and the schools. The district began to align its use of professional development time into coherent professional learning directly connected to and supporting the written, taught, and tested curriculum. Required professional development was explicitly defined into a clear course of study.

THE IMPACT

The external review provided the leverage to move a large urban district with an array of central office support staff toward working across department lines to construct a new framework of professional learning. The district's core staff was able to see a need for, develop, and implement a coherent professional learning plan. The external review helped educators from the superintendent to teachers in the classroom better understand what the district needed to focus on to get the most professional learning as an organization to maximize schools' impact for students.

Today in Austin, professional learning looks different. Teachers are forming professional learning communities, and learning is more job-embedded than before. They have a wider array of strategies for job-embedded professional development that makes their learning more powerful and changes in their practices more likely. And the value of the professional development program is routinely evaluated at a higher level to measure the effect on teachers' practices, a result that will lead to a continuing cycle of improvement for both teachers and students. ■

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