Journal of Research in Rural Education, Spring, 1995, Vol. 11, No. 1, 36-44

A Model for Professional Development and School Improvement in Rural Schools

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The model we describe below provides a framework for rural educators to employ as they seek ways to improve their schools and meet the national goal of providing all teachers access to professional development opportunities. Implementation strategies of our model include commitment of school teams; assistance based on the teams' assessment of their needs; a focus on teaching and learning strategies that promote meaningful connections; extended planning time for teams; recognition that change is a long-term process that requires long-term support; networking of teams across schools to promote collegial support; ownership of the professional development agenda; and process evaluations to guide future professional development opportunities.

Professional development to enhance the skills and abilities of teachers is increasingly viewed by federal, state, and local educational administrators and policymakers as the primary means for providing students opportunities to meet challenging world-class standards. The Goals 2000 legislation enacted in 1994, the framework for all federal education programs, emphasized the importance of professional development through the addition of a national goal to provide the country's teaching force with access to staff development programs. This goal states that by the year 2000, "the nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century" (Goals 2000: Educate America Act of 1994, p. 8).

Providing ongoing professional opportunities that support systemic school reform remains a challenge for rural and small schools. Declining rural enrollment and the consequent loss of funds, school closings, taxpayer revolts, and staff reductions have been dominant issues (Howell, 1989; Meyers, 1989; Schmuck & Schmuck, 1992). To further complicate matters for rural educators, the school reform movement in the 1980s led to an increased emphasis on accountability, stricter teacher accreditation standards, and increased course requirements for high school graduation (Forbes, 1989). These and other reform strategies added a new dimension to rural schools' struggles to respond to enrollment decline with measures that maintained the economy, efficiency, and equity of educational opportunities for students. In light of these issues, many rural schools and districts have lacked funds to support new initiatives and staff development opportunities (Stern, 1994).

Aside from the insufficiency of financial resources, the most frequently cited issue facing rural schools is the recruitment and retention of teachers (Matthes & Carlson, 1987). Despite the awareness of the different training needs of teachers in rural areas (Sher, 1977; Sher & Rosenfeld, 1987), few colleges and universities have courses specifically designed to prepare rural teachers (Barker & Beckner, 1987). Additionally, rural educators most frequently cite personal and professional isolation as the greatest disadvantage of working in rural schools (Carlson, 1990; Massey & Crosby, 1986; Nachtigal, 1989). The need for developed networks of social and professional support for teachers in rural and small schools is heightened by a growing consensus demanding high-challenging standards in content areas for all students (Kendall, 1992; Schmuck & Schmuck, 1992).

The distinct sociological, political, and economic differences between urban and rural settings have been recognized by many (e.g., Haller & Monk, 1988; Marshall, 1986; Nachtigal, 1982). Some of these differences (e.g., close school-community linkages and lack of accessibility to resources) are likely to have an impact on the way rural schools and communities respond to school reform. Despite this need, most of the well-publicized national school reform efforts have emanated from urban sites; few rural models for school improvement exist.

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Nonetheless, a review of the rural education literature reveals the great contributions of rural educators to the vision of school reform. The tendency for one researcher's "problems" to be another researcher's "opportunities" is best demonstrated by typical practices in rural education.

> Many so-called "innovations" being championed today were born of necessity long ago in the rural schoolhouse. Cooperative learning, multigrade classrooms, intimate links between school and community, interdisciplinary studies, peer tutoring, block scheduling, the community as the focus of study, older students teaching younger ones, site-based management, and close relationships between teachers and students—all characterize rural and small school practices. (Stern, 1994, p. 1)

While the rural school "has the potential to be a wonderful laboratory for educational innovation and improvement" (Sher, 1991, cited in Stern, 1994, p. 1), rural schools experience special challenges in providing continued professional development opportunities to their staff—geographic isolation of teachers and schools, limited availability of staff development resources, and the unavailability of a cadre of substitute teachers for release time.

This article describes the implementation of a professional development and school improvement model that addressed the challenges experienced by geographically isolated, small rural schools. The demonstration project integrated four interrelated elements associated with how schools change and adopt improvement strategies (Fullan & Stiegelbaurer, 1991; Loucks-Horsley & Hergert, 1985; SRI International and Education Development Corporation, 1993; Wayson et al., 1982) and augmented them to respond to the context of small rural schools. Figure 1 provides an overview of the four interrelated elements and strategies within them.

School-based improvement emphasizes the importance of school-level teams and their involvement in a comprehensive needs assessment and planning process:

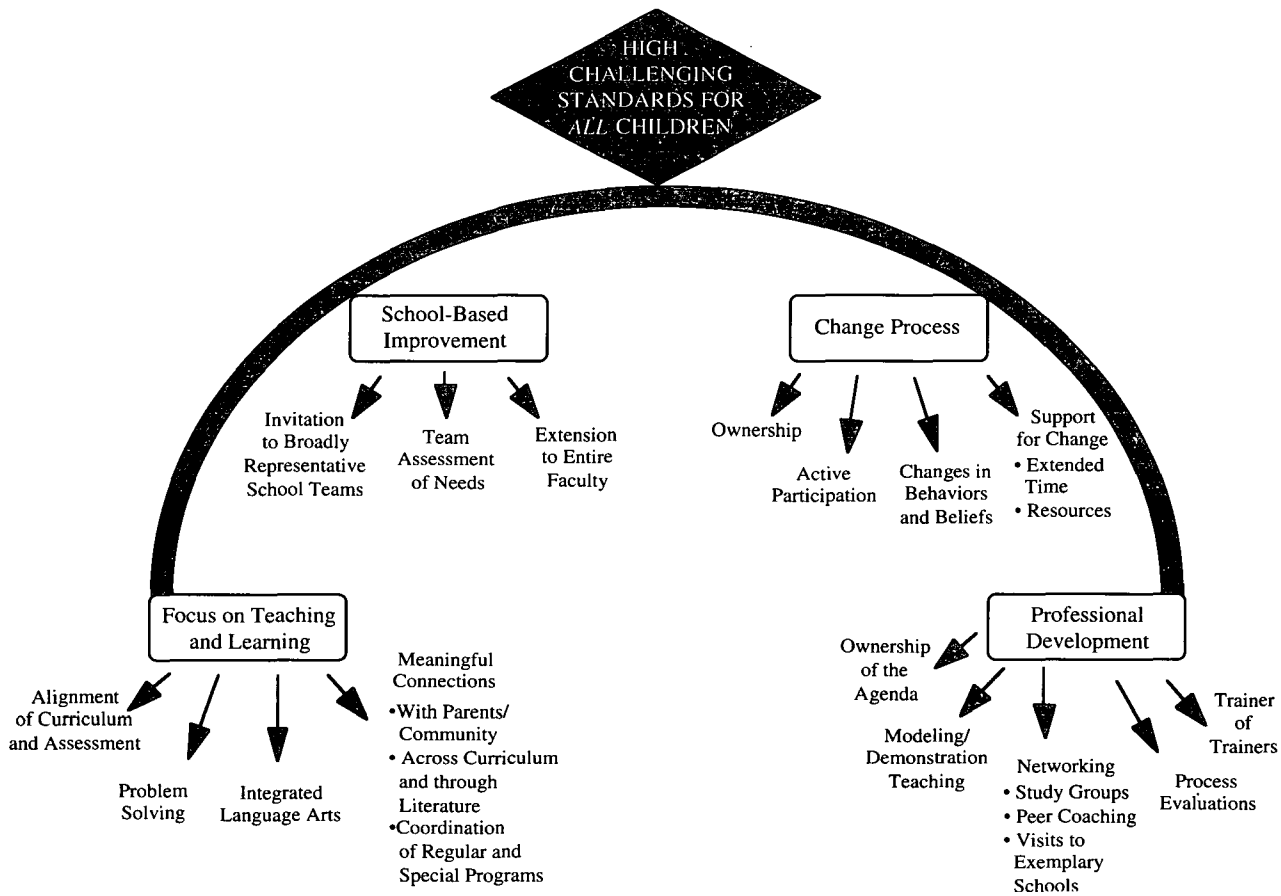

Figure 1. A conceptual model for professional development and school improvement in rural schools.

> In a well-founded approach to using teams for school improvement, not only should a team exist, but it ought to be forged in an intense team-building process. . . . Team building is seen as a way to sidestep the institutional resistance to change that lone reformers meet. (Maeroff, 1993, p. 514)

Change process reflects initiation, participation, and support; promotes changes in behaviors and beliefs; and addresses the overriding problem of ownership (Fullan & Stiegelbaurer, 1991). The appropriateness of this model for small rural schools was demonstrated by Nachtigal (1989). His findings indicated that individuals at the local level must play a significant role in designing the solutions. However, outside assistance and resources may be needed for local improvement efforts to be successful. When several schools collaborate, improvements are more likely to succeed because working together provides the moral support to move ahead.

The anticipated shift from past practices to new notions of *professional development* suggests that school-based approaches include opportunities for teaming, developing a community of learners, and improving the effectiveness of curriculum and instruction for all learners. Effective school-based staff development must be driven by a coherent strategic plan, include multiple forms of job-embedded learning (e.g., study groups, peer coaching) and promote both individual and organizational development (Sparks, 1994).

The growing consensus for high-challenging standards for all students broadens the *focus on teaching and learning* to include holistic curricula and instruction that promotes meaningful connections across the curriculum, supports connections with parents and the community, and coordinates regular- and special-education programs. Numerous recommendations from research findings highlight flaws in conventional wisdom and point to promising alternative ways of teaching mathematics, reading, and writing. Knapp et al. (1993) suggest emphasizing meaning and understanding, embedding skills in context, and encouraging connections among subject areas and between school and life outside of school.

These interrelated elements provided the theoretical background and support for the planning and implementation of the demonstration project described below.

Context for Technical Assistance

The Elementary and Secondary Education Act (ESEA) Chapter 1 program, the largest of the federal education programs, was intended to promote equality of educational opportunity for educationally disadvantaged students. Current Chapter 1 legislation requires districts to develop and implement plans for program improvement in schools where Chapter 1 students in the aggregate do not show substantial progress towards meeting Chapter 1 goals. This lack of progress is generally defined by low achievement gains on standardized achievement tests.

To examine how sustained technical assistance at the school level might contribute to Chapter 1 program improvement, the U.S. Department of Education established the Nine-Site Program Improvement Initiative in the 1990 school year. Nine sites—including four rural sites—were identified by the U.S. Department of Education for participation in this 3-year effort.[1] The Department of Education also contracted with an outside source to conduct both a formative evaluation at the midpoint of the initiative and a third-year evaluation.

The Region 4 Chapter 1 Rural Technical Assistance Center (RTAC) and the Iowa Department of Education identified a geographical cluster of eight rural Iowa schools that had not demonstrated sufficient progress toward meeting Chapter 1 goals to participate as one of the nine sites. Five of the eight rural schools were elementary (K-6), two housed both elementary and middle grades (K-8), and one was a middle school (Grades 5-8). To give the initiative an identity and participants a means of communicating about it, the initiative was named the Iowa Rural Improvement Special Effort (I-RISE).

Observations and insights on implementation strategies used with the I-RISE project were based on our first-hand impressions and the formative evaluation from an outside source (Chimerine, Haslam, & Laguarda, 1994). As the RTAC director and Iowa Chapter 1 state coordinator, we directed the I-RISE project and served as "critical friends" who provided outside resources and support for the teams.

The implementation strategies used with the I-RISE project provide a framework for other rural schools to plan meaningful, ongoing professional development. These strategies are summarized in Table 1 and delineated below.

1. Invite schools to participate in school improvement and commit to using a school team that includes classroom teachers, special program teachers, principals, administrators, and parents.

The RTAC director and the Iowa Chapter 1 coordinator visited each identified site in August 1990 to invite participation in the school improvement project.

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[1]Funding for this project was through the Chapter 1 Technical Assistance Centers (TACs) and Rural Technical Assistance Centers (RTACs). The project was designed as a collaborative effort of selected state departments of education, the TACs/RTACs serving those states, and local educational agencies (LEAs) or a consortia of LEAs.

Table 1
Implementation Strategies

1. Invite schools to participate and commit to using a school team.
2. Plan technical assistance based on the teams' own assessment of their needs.
3. Focus on teaching and learning strategies that promote meaningful connections.
4. Gradually, make changes resulting from the improvement process with the entire building faculty.
5. Provide extended planning time for the school improvement teams.
6. Recognize that change is a long-term process and requires long-term support.
7. Create a network of teams to support the exchange of ideas and promote collegial support.
8. Promote ownership of professional development agenda.
9. Conduct process evaluations to guide future professional development opportunities.

The invitation was offered as an opportunity for professional development and came with the condition that the school commit to a team approach to school improvement, with active participation of Chapter 1 teachers, Chapter 1 coordinators, classroom teachers, and principals. Such commitment is important because intensive technical assistance will have little impact unless it is linked to collaborative working relationships (Fullan, 1992).

The initial response of the school staff to being identified as failing to demonstrate substantial progress and being required to improve their school was largely one of embarrassment. However, after hearing about the opportunities available to them under this initiative, staff members from all eight buildings committed to the school team approach for improvement efforts.

2. Plan technical assistance based on the teams' own assessment of their needs and their subsequent needs as they implement their school-based improvement plans. Allow time for extensive planning in the first year.

During the first year, the I-RISE project focused on the importance of team planning and collaboration to improve both Chapter 1 and the regular program. To initiate this project, a two-day team institute was held early in the school year for teams from the eight schools. This intensive planning session was held at a central site away from the individual schools and communities to prevent distractions from interfering with the participation of administrators on the teams. For several small schools, teams constituted over 50% of their school staff. This was a significant commitment for these small schools because of the difficulty of finding substitute teachers to provide release time for school staff members.

An RTAC staff member guided school teams through a comprehensive needs assessment, the development of draft school improvement plans, and the identification of subsequent technical assistance needs. Team members indicated that this intensive team planning session was the turning point for their commitment to the project and that the opportunity to get away and have time to talk and plan was important for the success of their team efforts. The needs assessment and comprehensive planning revealed some common needs and interests across all teams. All teams identified the needs (a) to coordinate Chapter 1 and the regular program in moving to an approach focused on meaning rather than isolated skills in reading and mathematics instruction and (b) to increase parental involvement in their children's education.

3. Focus on teaching and learning strategies that encourage holistic instruction and promote meaningful connections across the curriculum and with parents.

To build on common identified needs and to promote a network of support for the teams across the districts, teams participated in 20 all-day workshops throughout the 3-year project. Workshops focused on strategies promoting positive self-esteem in all children, integrating children's literature across the curriculum, incorporating problem-solving strategies in teaching mathematics, teaching reading through writing, and using a variety of assessment options.

To model the coordinated team approach to school improvement, a team of consultants—including the principal, a classroom teacher, and a Chapter 1 teacher from an Ohio school—shared their experiences in moving away from isolated skills and worksheets towards meaning-focused approaches in reading and writing. (Their school's experiences are reported by Routman, 1988.)

An all-day workshop was held in response to the teams' request for a nationally known consultant to address literature-based reading, writing, and research to support the integrated language arts theme that had been woven into all project activities. Building teams were expanded to include additional classroom teachers.

The I-RISE school improvement teams also participated in staff development activities on alternative assessment. To gain further insights into the practical implementation of performance-based assessment, the teams requested a workshop with practitioners who had implemented alternative assessment in both Chapter 1 and the regular classroom. In keeping with the coordinated team

approach to school improvement used throughout the I-RISE project, a team of practitioners from an Iowa district shared their district's experiences in making the transition to performance assessment. The team consisted of a Chapter 1 teacher, a fifth grade teacher, a middle school teacher, and a reading/language arts coordinator.

To promote parental involvement, RTAC staffers provided examples of ways to involve hard-to-reach parents, who do not attend school functions, by giving each team two take-home book bags with activities for parents to complete with their children at home. The project logo "I-RISE" was stenciled on the book bags to promote visibility and ownership of the project. An evening workshop on promoting self-esteem and a supportive home environment was held for parents from all schools to follow up on the positive parental reaction to the take-home book bags and to continue to increase parental involvement.

4. Initially, focus on getting the school improvement team members committed to the improvement process. Gradually, make changes resulting from the improvement process with the entire building faculty.

The school improvement teams constantly sought ways to implement changes resulting from the improvement process with the entire building faculty. Many of the schools had difficulty finding substitute teachers, but they found creative solutions to involve other building faculty members in all-day workshops. One school sent 10 faculty members from a building faculty of only 16 members. Core team members who had participated in previous workshops volunteered to help cover classes so that new team members could attend.

Requests to provide assistance to the faculty at individual buildings were balanced with the need for group meetings with all teams. Workshop topics for individual buildings included coordination of instruction through strategies; the redesign of report cards; research-based spelling strategies to incorporate in an integrated language arts program; the implementation of a literature-based program in a multiage classroom; and issues related to whole language, assessment, and flexible grouping. Demonstration teaching focused on cooperative group work, advanced thinking using schema stories, the use of a picture book for story sequence, readers' theater activity, and comprehension retelling strategies. Most of these opportunities for staff development were held after school hours.

5. Provide extended planning time for the school improvement teams by using strategies such as summer staff development activities and substitute teachers.

Like other educators, the I-RISE school improvement teams had difficulty finding extended planning time and staff development during the school year. The RTAC sponsored a four-day summer workshop, entitled "Teaching Reading and Writing Strategies Through Children's Literature." This workshop gave participants an opportunity to learn how to design holistic instruction for students. Participants were given time to read and respond to professional and children's books and to have access to many teaching resources and models for using children's literature in their classrooms. During the summer, individual teams also participated in numerous projects, such as writing comprehensive parent-involvement policies and revising Chapter 1 and regular curricula.

Since many of the schools had few or no designated inservice days, it was difficult to involve the entire staff in an all-day inservice. However, schools were able to hire substitute teachers for half of their staff so that they could observe demonstrations of effective teaching strategies provided by RTAC staff members. Demonstration teaching to model effective teaching strategies that promote higher-order thinking in reading and mathematics was reported to be one of the most effective strategies for involving the entire building faculty. After participants discussed the demonstration lesson, they returned to their classes, and the substitutes then took the classes of the remaining half of the staff so that they could also observe the demonstration.

6. Recognize that change is a long-term process and requires long-term support in the form of coaching, feedback, and follow-up that is readily available and responsive to local concerns.

To establish high expectations and enthusiasm for the third project year, the RTAC director and the SEA Chapter 1 coordinator met with all of the building principals before the start of the school year. They brainstormed ways to involve additional building faculty members in the I-RISE activities and to coordinate technical assistance with other school and district activities. Discussion focused on extending the positive results of the project to other faculty members and implementing follow-up strategies (since this was the last year for the targeted assistance). Principals were given resources to support the faculty's capacity to implement staff development models such as support groups and peer coaching. Principals were asked to share and discuss these models with the school improvement teams prior to developing a plan for staff development. As a result, the third-year staff development plans reflected strategies that promoted collegial interaction and ownership of the professional development agenda (e.g., peer coaching, networking through teacher study groups, and training a cadre of teachers to conduct staff development at the building level).

7. Create a network of teams across the schools to support the exchange of ideas and promote collegial support.

Team members expressed a need to continue to meet together and form a support network for the exchange of ideas because they felt isolated from other teachers except those in their own elementary building. Unlike larger urban districts with multiple elementary and middle school buildings, these rural staff members had limited access to staff members from different schools. Networking across all the schools in the project was accomplished through collegial visits to other schools in the project to observe effective teaching practices. Additionally, team members felt that the reluctant faculty members would be more receptive to an outside practitioner from a similar rural setting. One team arranged for 7 out of 16 staff members to visit a school in a nearby state that was using an integrated curriculum approach in both Chapter 1 and the regular classroom. Six of the core team members and one teacher who had been reluctant to implement changes were involved in the visit. The group's observations were shared at faculty meetings. The teachers reported they were excited to see many of the research-based strategies successfully implemented and planned to have the remainder of the faculty visit the same school in the following year. They also planned to keep a journal or justification folder of the things they had implemented in their own building as a result of their visit so that they could provide the district superintendent with evidence that supported the usefulness of additional visitations.

The formation of study groups across the districts, such as a Chapter 1 teacher study group to discuss specific instructional issues or concerns, also reinforced collegial interaction and ownership of the professional development agenda. Study group topics during the third year included discussions about instructional strategies that are effective for Chapter 1 students, computer software that promotes higher-level thinking skills, and strategies that promote the enjoyment of literature.

8. In a trainer-of-trainers model, train a cadre of teachers to conduct staff development at the school level to promote ownership of the professional development agenda.

To increase the teams' capacity to conduct their own future staff development at their schools, the RTAC assisted the I-RISE teams in developing long-term staff development plans. Each team selected a cadre of teachers to conduct a series of staff development activities, assisted by inservice videos, for its building faculty throughout next year.

To promote transfer of responsibility for staff development to the school staff, an RTAC staff member and Chapter 1 teachers copresented the first of a series of workshops for parents at one district—the first Chapter 1 parent meeting ever held in the school district. The success of this parent workshop enhanced the professional confidence of Chapter 1 teachers, who subsequently held several more successful parent workshops on their own.

9. Conduct process evaluations to guide future professional development opportunities and to identify the portions of the I-RISE project that were most effective for these teams and for future replication.

As part of the process evaluation to assess the effectiveness of this professional development model, teams completed both a team and individual assessment of their participation in the I-RISE project. A survey was administered to all participants at the end of each project year. At the end of the first project year, 97% of the participants reported that their participation in the I-RISE Project had been beneficial for their instructional program. Teams recommended that the following year's plans involve more workshops in their schools to spread the enthusiasm to the entire faculty.

Participants cited several significant changes that had been made in their buildings during the first year. Teachers and administrators learned to work together as a team toward the common goal of meeting students' needs. Teachers became more aware of literature-based reading and were more willing to explore new ways to use literature in their reading instruction. Several teams reported increased use of literature books and less reliance on worksheets. One participant indicated, "Next year I'm not ordering any workbooks—I'm putting all my money into multiple copies of children's books." Coordination between Chapter 1 and classroom teachers also increased. Teams reported schedule changes to accommodate weekly conferences between Chapter 1 and classroom teachers to coordinate lesson plans.

On the second-year assessments, all participants reported that their participation in the I-RISE project had been beneficial for their instructional program. Because the second year of the project provided more opportunities to involve the entire building faculty, team members were asked how information gained from this project was shared with other nonteam faculty members. Sixty-three percent of the respondents reported they shared both information and enthusiasm by inviting additional nonteam faculty members to attend group workshops; 84% indicated that sharing took place through on-site building activities such as workshops and demonstration lessons; and 96% of the respondents indicated that informal sharing by team members occurred.

At the end of the project, a survey was administered to all participants. Individuals were asked to anonymously respond to the open-ended question, "In what ways has

participation in this 3-year project helped you improve your professional performance?"

All participants reported positive examples of improved professional performance. Some participants' responses revealed changes in personal teaching styles. For example, one participant cited a role change:

> "I think of myself as more of a facilitator now instead of a lecturer. I used to stand in front of the class for 8 hours a day and try to teach them everything I knew. Now I make them responsible for their learning; my classroom is not a teacher with 20 students sitting in desks. We are now a learning team."

Others cited specific changes in their instructional approaches:

> "This project has totally changed my performance. I started out with the literature-based reading—then added various writing activities, and now I'm trying to integrate throughout the curriculum. We even started research projects. The initiative has given me the 'push' I needed to change my classroom."

The validation of the team approach to school-based improvement and support for change was evident in many participants' responses. " We are more of a team of reading teachers rather than separate troops fighting separate battles." Other participants acknowledged the importance of support for change: "I've learned how important change is and how the teacher must stay up on change and accept it. Most importantly, how with a little help, *anyone* can change."

Participants also cited significant changes that were made in their buildings throughout the 3-year initiative. Most frequently cited changes pertained to better communication between Chapter 1 teachers and regular classroom teachers; a shift from basal instruction to literature-based activities and integration of writing in all curricular areas; more manipulatives and problem-solving strategies in mathematics instruction; and new ways to document and report students' performance, such as portfolios and revised student report cards, to reflect an emphasis on integrated learning. Teams also indicated that they were planning to continue networking among their school team members and would try to continue networking with the other teams in the project.

Effects on Student Achievement

The ultimate goal of any school improvement process is to increase student learning. The schools were selected for participation in this initiative because Chapter 1 students in these schools did not show substantial progress towards meeting Chapter 1 goals. As part of the Chapter 1 reporting requirements, each school collected standardized norm-referenced achievement test data on their Chapter 1 students. At the end of the 3-year initiative, all schools had met or exceeded state requirements for demonstrating substantial progress. The state defined "substantial progress" as an increase in a school's mean normal curve equivalent gain on standardized achievement tests.

A formative evaluation from an outside source was also conducted at the midpoint of the initiative and at the end of the third year (Chimerine et al., 1994). Data collection included focus group interviews with teachers and principals that explored changes in the schools during the 3 years, a review of school documents, reports of student achievement, and summaries of technical assistance to the schools. Findings from this outside evaluation also provide evidence that this model of professional development and school improvement was effective for this cluster of rural schools:

> Iowa was the only site where we found evidence of teacher changes that transcended the episodic use of new instructional strategies or techniques. . . . In these schools, the team teachers added lots of new language arts activities to their repertoires (e.g., story mapping, predicting); many reported almost complete changes in their instructional methods for reading and writing. Most other teachers in the schools used literature books at least twice a quarter (twice more than they used to) by the end of the Nine-Site Initiative. Team teachers had many more literature books in their rooms than they used to. . . . Beyond this activity-oriented improvement, many teachers on the teams, especially in one school, significantly changed their practices across all or most of their instruction; they had their students working cooperatively in groups; they developed interdisciplinary units where students worked on science, reading, math, and writing . . .; they moved away from basals (completely or partially) into literature-based reading instruction. Finally, we believe that at least several of the participating teachers changed their beliefs about teaching. (Chimerine et al., 1994, pp. 47-48)

This outside evaluation also examined the degree to which teachers were encouraged to interact professionally to support the exchange of ideas. Findings suggested the team approach used in this model was key to the changes that occurred:

> In the best example of improved collegiality, the formation of teams in Iowa laid the groundwork for change in the schools by giving teachers a forum to develop relationships, share information, exchange support and critiques, and discuss emerging concerns. (Chimerine et al., 1994, p. 39)

Lessons Learned for Implementation in Rural Schools

The interrelated elements illustrated in Figure 1 were augmented by the lessons learned from implementation of this model. Extended planning and interaction time for school teams, networking across schools during workshops, and formation of study groups across the districts were the most effective strategies to respond to the professional isolation of teachers in rural and small schools. Several strategies were effective to overcome the lack of professional development resources in these rural schools. The state Chapter 1 coordinator and RTAC staff members maintained a strong partnership throughout the project. This partnership facilitated the sharing of resources such as state program improvement funds to pay for substitute teachers to enable team members to participate in all-day workshops. The project was able to provide outside consultants and materials such as subscriptions to professional journals and children's literature books to support the implementation of improvement plans.

The RTAC staff and the state Chapter 1 coordinator were able to fill the role of "critical friends" who provided feedback and advocated for the success of the effort. Critical friends bring to schools an objective viewpoint, knowledge of broader educational issues, and group process skills to facilitate school reform (Sparks, 1994-95). Because rural schools and districts frequently do not have full-time professional development coordinators, someone to fulfill the role of a critical friend is especially important for the implementation of this model in a rural context.

Since much of the well-publicized national school reform movement has emanated from urban sites, the implementation strategies and lessons learned from this model may assist small, rural schools as they seek ways to improve their schools and meet the national goal of providing all teachers access to professional development opportunities and high-challenging standards for all children.

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