This guidebook was designed to be used as a resource by teachers and school administrators interested in implementing school-based reforms. It provides examples of promising reform strategies and lessons learned from a national study of school-based reform. The congressionally mandated study of Effective Schools Programs was conducted by an independent firm for the United States Department of Education during the 1991-92 school year. Data were obtained through a mail survey of 1,550 school districts, mail and telephone surveys of administrators at all state education agencies, and case studies of reform efforts in 32 schools in 5 states. The states included California, Connecticut, Kentucky, South Dakota, and Washington. Following the introduction, the second section describes the lessons learned from the case studies. The successful examples of school-based reform shared a core set of characteristics: a clear focus on creating more challenging learning experiences for all students; a school culture in which teachers worked collaboratively and had a voice in decisions that directly affected their ability to improve classroom practice; and opportunities for teachers and administrators to gain knowledge and build their professional capacity. The third section provides more detailed examples of schools involved in promising reforms. The fourth section discusses what district staff can do to support school-based reform: (1) serve as an initial stimulus; (2) assemble resources; and (3) offer a broader professional forum. Contains an annotated list of research and how-to resources. (LMI)
SCHOOL-BASED REFORM

LESSONS FROM A NATIONAL STUDY

A GUIDE FOR SCHOOL REFORM TEAMS

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LESSONS FROM A NATIONAL STUDY
A GUIDE FOR SCHOOL REFORM TEAMS

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Increasingly, over the past decade, educational reformers have called for fundamental shifts in what takes place in classrooms and schools. These arguments follow from the now common conclusion that our nation's schools are failing to provide many students with the high-quality education needed to become responsible citizens and productive workers: To address this problem, reformers urge reconsideration of traditional notions of schools as institutions with isolated classrooms where students spend fixed periods of time studying rigidly differentiated subjects. Instead, new institutions need to be designed, from the bottom up, limited by neither previous practice nor burdensome regulations. Doing so, the argument continues, entails deregulating the educational system and transferring authority from the federal, state, and even district levels to schools—in return for accountability for student results.

These arguments are reflected in nearly every current reform effort. At the local level, there are numerous experiments with school-based management strategies (e.g., Dade County, Fla., and Santa Fe, N.M.). At the state level, strategies as diverse as Kentucky's sweeping educational reform act (KERA) and South Dakota's targeted reforms share this common focus on school-based change. Nationally, there are a series of coordinated efforts—the Comer Schools, Accelerated Schools, and the Coalition
Federal Legislation

Support for school-level improvement has long been a mainstay of the federal education agenda. Title I of the newly enacted Improving America's Schools Act (IASA), which amends Chapter 1 of the Elementary and Secondary Education Act (ESEA), strongly encourages the use of its funds for schoolwide improvement efforts in schools with high concentrations of disadvantaged children. Other programs authorized in the new legislation (e.g., the Dwight D. Eisenhower Professional Development Program) emphasize schoolwide reform and provide school staff with flexibility to design and implement school-specific improvement strategies. Goals 2000: Educate America Act, the federally supported framework for education reform also enacted in 1994, encourages and supports school-level change and directs professional development resources to school-level educators. Both pieces of legislation recognize that individual schools are the necessary targets of successful reform efforts and that educators closest to the classroom are vital to sustaining these efforts.

The Chapter 2 program, as reauthorized by the 1988 amendments to ESEA (P.L. 100-29) and again in IASA (P.L. 103-382) in 1994, is another example of federal support for school-based reform. The 1988 legislation required that states use at least 20 percent of their Chapter 2 allocations to support Effective Schools Programs. This provision reflected lessons from the research on unusually effective schools that identified a set of school-level correlates or characteristics associated with higher-than-expected student achievement. The federal goal was to encourage states to support school-based reform efforts consistent with this research. The Chapter 2 program was modified and renamed in IASA. Title VI (Innovative Education Program Strategies) maintains the school-level focus of the earlier Chapter 2 program but eliminates the Effective Schools Programs requirement.

These are exciting experiments and innovative public policies that create new opportunities for local educators to influence the course of change in their own schools. At the same time, they place a great deal of pressure on school staff to undertake reform efforts for which they often have neither the preparation nor the resources. As with all change efforts, new opportunities and pressures need to be accompanied with appropriate assistance and support.

Purpose of This Guide

This guide is meant to be a resource for teachers and school administrators interested in undertaking school-based reforms. It provides examples of promising reform strategies and lessons learned from a national study of school-based reform. The remainder of this introduction reviews how the study was conducted and provides an overview of the major themes that run through the rest of the document. It is important to note that the research that informs this guide predates IASA and Goals 2000. In fact, the original study was commissioned in order to learn lessons about how to improve federal support for elementary and secondary education. The lessons from this study should be useful in planning and carrying out the reforms envisioned in the recent federal education legislation and ongoing state and local school reform efforts.
The Study of Effective Schools Programs: The Basis for the Guide

The examples, ideas, and recommendations contained in this guide reflect lessons from a congressionally mandated national study of Effective Schools Programs and other school-based reforms carried out by SRI International under contract to the U.S. Department of Education. The study resulted from the federal Chapter 2 legislation, which, as noted above, supported Effective Schools Programs. Data for the study were collected during the 1991-92 school year and included:

- A mail survey of a nationally representative sample of 1,550 school districts, in which district administrators were asked to respond to questions about district support for school-based reform efforts and about their most comprehensive school-level improvement efforts.
- Mail and telephone surveys of all state education agencies, in which state-level administrators were asked to describe reform efforts in their states.
- Case studies of reform efforts in five states, 16 school districts, and 32 schools. These involved on-site visits of approximately one week, which included interviews with administrators and teachers, observation of classrooms and team meetings, and review of relevant documents. These case studies form the basis for the vignettes described in the second section of this guide.

The states visited were California, Connecticut, Kentucky, South Dakota, and Washington. These states were selected because they covered the range of state school reform strategies from traditional Effective Schools Programs (e.g., South Dakota's Effective Schools Program) to change efforts promoting more fundamental reorganization of schooling (e.g., KERA in Kentucky). State roles and involvement in schools also varied across these states. The 16 school districts and 32 schools were located in these states and were selected because they, like the sample states, encompassed the full breadth of different reforms and demographics. Moreover, states, districts, and schools were selected with an eye toward the lessons they could teach others about successful reforms. By agreement with the local educators who gave so freely of their time and ideas, it was agreed not to publish the names of any individuals, schools, or districts involved in the study; therefore, the names used in this document are fictitious. A list of the teachers and administrators who reviewed this report appears in the acknowledgments at the beginning of the guide. The research findings and a detailed description of the methods used can be found in the formal technical report (Shields et al., 1995).

Key Features of Promising Reforms

The national study showed that districts and schools throughout the country were paying a great deal of attention to school-based reform. In fact, depending on how one defines reform, somewhere between a fifth and two-thirds of the districts reported having school-based reforms under way. For example, 40 percent of districts reported having reforms that focused on increasing student learning, improving teachers, and developing schoolwide problem-solving and planning capacity.

Yet, when the researchers actually visited schools in the case studies, the amount of meaningful change taking place was often much less than advertised—suggesting that these national incidence figures may overestimate the amount of reform that was actually occurring. In some schools, reform translated into nothing more than changes in teacher routines and meeting times. In many, however, school reform meant something: a reorganization of school routines to
support learning, new attitudes among teachers toward student ability, more challenging classroom practices, and exciting learning experiences for students. The case study data suggest that the successful examples of school-based reform shared a set of core characteristics:

- A clear focus on creating more challenging learning experiences for all students.
- A school culture in which teachers worked collaboratively and had a voice in decisions that directly affected their ability to improve classroom practice.
- Opportunities for teachers and administrators to gain knowledge and build their professional capacity in subject areas, classroom pedagogy, and decision-making strategies.

These three characteristics are used to structure much of the practical advice offered in the second section of the guide.

**How to Use This Guide**

This guide is divided into four sections, followed by an annotated bibliography. The second section describes the basic lessons learned from the case studies in 32 schools across the nation, lessons that reform-minded school staff should consider as they seek to improve their own schools. This section is organized by the three characteristics of promising reforms listed above. The third section provides fuller examples of schools involved in promising reforms. These portraits are meant to help the reader understand how the various characteristics of reform work together to propel a school forward. The fourth section discusses what district staff can do to support school-based reform. Finally, an appendix provides an extensive annotated list of published resources for practitioners and researchers alike.
The schools studied orchestrated their reform efforts in many ways. The catalysts for change, key actors, problems addressed, strategies attempted, and resources used varied dramatically. Although each school's story unfolded in unique ways, some common elements were discerned. This section extracts from the case studies of 32 schools lessons that reform-minded schools might consider incorporating into their improvement efforts. It is important to note that in many schools that considered themselves involved in reform, little change was taking place. In other sites, though, school-based reform has involved fundamental changes in the daily lives of school staff. Yet, change in some schools was not necessarily positive. Without clarity of purpose, commitment, collaboration, support, and leadership, reform efforts may sputter and die. Without sustained nurturing, enthusiasm may fade to burnout.
Teachers held high expectations for all their students.

Reform efforts may sputter and die. Without sustained nurturing, enthusiasm may fade to burnout. Therefore, the practical advice provided in this guide is drawn from the schools in which changes were both significant and effective.

In general, the successful school-based reforms studied had three key features:

1. Challenging learning experiences for all students
2. A school culture that nurtured staff collaboration and participation in decision making
3. Meaningful opportunities for professional growth

The second key feature observed is that the instances of successful school-based reforms developed effective techniques for nurturing staff collaboration and participation in decision making. The schools created cultures of collegiality by finding ways for staff and the community to work together on significant changes needed in their schools. Time and funding to support working groups' access to it were cornerstones of successful school-based reforms. Equally important to shared decision making was the formulation of the roles and authority exercised by teachers and administrators. Some principals welcomed teachers' contributions; others gave up control grudgingly. These new divisions of labor and clout created new responsibilities and obligations for school staff but also strengthened professionalism and morale. Leadership for these change processes came from a variety of sources: teachers, principals, and district or state personnel. The advances in staff collaboration and participatory decision making were often achieved by an array of creative changes in staffing patterns and allocations of resources, time, and space.

Providing meaningful opportunities for professional growth is the third major feature shared by successful school-based reforms. In these schools, teachers set staff development priorities keyed to their vision of the reform goals in their schools. Typically, staff development topics related to technical areas such as curriculum, instruction, and assessment, or to managerial areas such as schoolwide planning or collaborative decision making. In some instances, teacher teams developed strategic plans that selected staff development topics and methods allowing sustained, coherent immersion in an area. Forsaking a grab bag of one-session workshops, teachers sought the
expertise and time necessary for the school staff to acquire, implement, and reflect on innovations on an ongoing basis. The methods used for staff development ranged far and wide. Trainer-of-trainers models created cadres of teacher experts in the school; teaming and coaching arrangements allowed school faculty to learn from experts and from each other; visits to classes in their own and other schools allowed teachers to see new ideas in action; alliances with universities brought expertise to the schools and opportunities for growth and advancement to teachers; some schools pooled resources to share training expenses and personnel.

Descriptions of lessons learned from the 32 schools open with a view of one school's successful integration of the three key elements. Following this complete portrait of one school, the guide "zooms in" to sets of focused vignettes that illustrate variations of these elements found in a number of schools during the 1991-92 school year.

A PORTRAIT OF SOUTH MISSION HIGH SCHOOL: BUILDING ON THE EFFECTIVE SCHOOLS MODEL

The reforms at South Mission High School exemplify a successful adoption of the Effective Schools model, which focused on the seven correlates identified in the body of Effective Schools research: (1) clear and specific purposes, (2) strong educational leadership, (3) high expectations for students, (4) mastery of basic skills, (5) frequent monitoring of student progress, (6) positive climate for learning, and (7) partnership with parents and community. Taking advantage of the many instruments and professional development opportunities based in the Effective Schools research, school staff implemented a number of key changes in the school and established methods for continually improving their work.

The restructuring effort at South Mission High represents a top-down strategy that seemed to be working. South Mission's superintendent initiated the reform process with a prepackaged program of how the school improvement process should proceed. South Mission's reforms addressed seven goals derived from the seven correlates of Effective Schools detailed above in the introduction to the school's portrait.

Seven subcommittees were set up to address the goals, and structured instruments were available to assess needs and progress toward the goals. At first, the creation of the seven correlate committees by decree left some committees floundering for lack of a recognized need. Although he usually approved committee recommendations, the principal made the final decisions.

Support for professional growth throughout the years, however, has paid off in teachers' involvement and commitment to Effective Schools tenets. In general, the teachers felt good about the changes instituted through the Effective Schools process and about their ability to provide input in the process of identifying problems and solutions.

Teachers at South Mission High took responsibility for effective instruction and ongoing improvement.
The reforms at South Mission High permeated classrooms, creating challenging learning experiences for all students. The school culture was one of high expectations for students and a belief that all students can learn. The school climate and sense of personal safety had improved, and the needs of the increasing limited-English-proficient population were being addressed. There was still little evidence of coordinated curriculum planning, but participation of teachers from various disciplines on the correlate committees had begun to stimulate interest in interdisciplinary collaboration. Some teachers were not positive about eliminating tracking, but they recognized research supporting it and sought additional training in the teaching of heterogeneous populations.

Context  South Mission High School, with 2,200 students, is located in what once was a predominantly rural, white, agricultural area that over the past decade has experienced rapid growth, particularly in the number of Latino students (who now make up a third of the district's enrollment). In 1987, the new superintendent led the district into the Effective Schools process. The district has reduced the number of district and school staff coordinators of programs and passed categorical funds directly to the schools and teachers. At South Mission High, federal Chapter 2 funds are used for tutorials and staff development.

Creating Challenging Learning Situations for a Changing Population  The first set of reforms relate to classroom practices. A “Welcome Center” has been created as a transitional period for new immigrant students to expose them to basic English and the rules and procedures of American high schools. These students also now have access to a series of English as a Second Language and bilingual classes. An extra tutoring session has been set up and busing schedules adjusted to accommodate students who stay late for these sessions. Teachers assert that the most important change has been the reaffirmation that all students can learn. Throughout the school, teachers have chosen to eliminate tracking, with the exception of the advanced-placement courses and the Welcome Center. If students are not succeeding, it is the responsibility of the teacher to modify his/her instructional practices. Teachers report that classroom observations have focused the entire school on improving instructional practices.

Despite the decline in average family income over the years, student scores on the standardized tests continue to rise, with current performance in the 79th percentile for reading and the 81st for math.

Making Decisions Together  Teachers work together to improve South Mission by serving on seven teacher-staffed subcommittees, each of which assesses how well the school is doing regarding that committee’s mission. They forward their recommended changes
Teachers at South Mission High took responsibility for effective instruction and ongoing improvement. Tests of student achievement supported the success of this reform effort.

South Mission High illustrates how one school integrated the three key features of successful school-based reform. The sections below offer practical advice linked to each of the three key features, and selected vignettes describe specific approaches used by the case study schools.

Learning to Change

To the school council, then to the principal. The first set of reforms addressed safety and school climate. To reduce the number of students out of class at the same time, a split lunch period has been created. The campus is closed to outsiders, and a student leadership team discusses concerns among different student groups. Another vehicle for collaboration has been eight observations of teachers by administrators per year. Teachers report that these have opened up communication between the administration and teaching staff about classroom matters.

Over the years, the superintendent has taken board members, building administrators, district administrators, the teachers’ union leader, one elementary teacher, the high school Effective Schools council members, and department chairs out of state to a four-day annual workshop on Effective Schools. All staff are required to go through Effective Schools training, and principals are evaluated on the extent to which the seven correlates are present in their schools.

In the first year, administrators conducted eight classroom observations per year; the second year, the school added a needs assessment; the third year, the Effective Schools council and committees were established. Two-thirds of the teachers now actively participate in either the council or the correlate committees. Besides the Effective Schools summer conference, seven pupil-free days are devoted to staff development each year. The topics for three of these days are chosen by the school. Teachers have been trained in Effective Schools correlates, particularly that all students can succeed. They have read research on student grouping and the adverse effects of tracking. Teachers receive release time to participate in the school council and funds for summer curriculum development and participation in state pilot projects.

To provide practical examples of specific reforms such as mastery learning and detracking, teachers were given the opportunity to see such efforts in action at other school sites.
CREATE CHALLENGING LEARNING EXPERIENCES FOR ALL STUDENTS

1. Set High Expectations for All Students

2. Develop Challenging Curriculum

3. Consider Alternative Configurations of Students and Teachers

4. Track Student Progress with a Range of Outcome Measures

The heart of school reform is the improvement of student learning. If school-based reform does not affect classroom practices, all efforts will be for naught. Although this claim may seem obvious, according to the study, as many as 20 percent of the reform efforts nationwide do not appear to be changing students' classroom experiences. However, in the best examples of school reform, changes in goals, curricula, instruction and teaching, and assessment were significant. Teachers were questioning their traditional approaches to instruction and learning, and investing significant time and energy to design new methods for reaching their students.

Schools placed increased emphasis on students' acquisition of higher-order reasoning strategies and computer literacy. Students with these new curricula found that they were required to think in different ways about the subjects they studied. More was required of them than filling in the blanks on a mimeographed worksheet or answering the questions at the end of the chapter. Rather than regurgitate facts, students analyzed significant phenomena, made extensive comparisons, developed interpretations, drew conclusions, and evaluated issues. Newer curricula tended to emphasize the processes of solving problems and thinking critically rather than simply getting one right answer.

Schools replaced traditional subject-matter treatments with more integrated, engaging curricula. Thematic, interdisciplinary curricula and extended blocks of time were being designed to allow in-depth exploration of significant themes and content.

Manipulative mathematics, hands-on science, issues-centered history/social science, literature-based reading, and process writing have brought with them new classroom interactions. Instructional practices included all students in active, collaborative activities. Cooperative learning and clustering arrangements have revitalized the settings in which students learn and the ways they work with one another. Students in sites implementing these types of changes did not spend the entire school day working in isolation. Especially at the elementary level, students were seated, not in rows facing the teacher, but in clusters of four or
five. Employing cooperative learning approaches, teachers in these classrooms assigned roles to individuals that would enable their group to accomplish a task. At some of the middle and high schools, groups of students shared four or five teachers, promoting closer relationships than were possible in the traditional setting.

The design of the study did not allow for definitive evaluation of the impact of specific classroom changes on students. Unfortunately, in most of these sites, assessment issues were still in flux, with staff at many schools skeptical about standardized tests but not yet wedded to alternative forms of assessment. There were indications, however, corroborating a growing body of literature from other research, that the major shifts these schools were struggling to implement have a high potential for positive effects on student learning. The most promising classroom practices focused on:

1. setting high expectations for all students
2. developing challenging curriculum
3. considering alternative configurations of students and teachers
4. tracking student progress with a range of alternative outcome measures

Changes implemented by particular schools are described on the following pages.

Cooperative learning and clustering arrangements have revitalized the settings in which students learn and the ways they work with one another.
1. Set High Expectations for All Students

- High standards
- Emphasis on problem solving and critical thinking
- Flexible behavioral standards
- Heterogeneous grouping
- Developmental appropriateness

Schools were conveying their high expectations for all students in a variety of ways. Challenging performance standards were being set for what all students should be able to do. These performance standards emphasized strategic reasoning, rather than memorization of content knowledge. Rigid rules for silent, individual seatwork were being replaced by flexible guidelines for buzzing, interactive group work. Tracking was giving way to heterogeneous groups of high- and low-achieving students working together. Learning environments were becoming more developmentally appropriate by easing the transition from single-teacher, self-contained classrooms.

Setting high standards is one aspect of schools’ high expectations for their students. Successful reforms were integrating lists of discrete objectives and minimum competencies into statements of what students should know and be able to do. No longer were these schools promoting breadth of coverage over depth of inquiry. Performance standards were being set that represented challenging, yet attainable, accomplishment rather than minimum competency.

A hallmark of reform efforts is an emphasis on problem solving and critical thinking. Goals have shifted from emphasis on facts to strategies for using information to solve problems and think critically. The call for addressing reasoning comes both from extensive test results indicating that students are not performing well on complex tasks and from extensive research that indicates that all students can learn strategies. In fact, relegating lower-achieving students to “drill and kill” denies those students opportunities to learn strategies for reasoning. Consequently, research supports teaching problem solving and critical thinking to all students, as well as integrating students of all achievement levels into challenging curricula.

Changes in school staff’s beliefs were not limited to raising expectations about achievement. In some sites, flexible behavioral standards were revising standards for “proper” classroom behavior and the conditions necessary for learning. Along with more challenging learning goals, teachers were revising their perceptions of how students should behave. As one teacher noted, “There’s more a sense now of making education more fun for kids. Teachers are more likely to feel that it is okay to be noisy in the classroom [when students are collaborating on a project].” Teachers were recognizing that behavioral expectations should be flexible enough to allow for students to interact as they learn.

School staff took seriously the research findings supporting the benefits of heterogeneous grouping. Teachers involved students of mixed achievement levels in collaborative learning and peer tutoring activities. Schools eliminated the long-used practice of placing high-achieving students in groups or classes separate from low-achieving students.
Another form of changing expectations is the developmental appropriateness of classroom content and organization. Particularly in middle schools, classroom environments and subjects were being reconfigured by combining subjects such as language arts and social studies into two-hour core subjects or by creating “schools within schools” to soften the often painful transition from elementary to secondary school and from childhood to early adolescence.

High expectations for all students, then, are evident in a variety of reforms. These include emphasizing critical thinking, strategies for raising students’ expectations for themselves, and mechanisms for eliminating segregated and diluted instruction for lower achievers. At South Mission High School, teachers eliminated tracking after studying theory and research, then observing in schools where heterogeneous grouping was being used. Teachers also reflect high expectations by applying flexible behavioral standards to fit the learning activity and using appropriate teaching methods to support students’ developmental needs.

The Cobblestone Elementary student population shifted over the past 10 years from mostly white to 25 percent minority. The school is now a Chapter 1 site where most families, although not on welfare, are “eking out a living.” Although the district had a long history of teaching “the three R’s,” it was rocked out of complacency by poor showings on the new state mastery tests. These test results stimulated the staff to take a hard look at how they were teaching. Despite their initial suspicion of any ideas promoted by the state, Cobblestone staff responded so positively to a presentation of the Effective Schools reform by state educators that the decision to adopt the initiative was unanimous—bolstered by the low cost to the school and the provision of technical assistance from the state.

The state facilitator recognized that the Cobblestone staff had been working hard to help students achieve, yet found that they were working on outdated ideas. The state facilitator served as a catalyst for teachers to rethink their views of students by presenting research evidence of the successful implementation of approaches such as cooperative learning and heterogeneous grouping practices. The staff began to look at the effects of environment on students and came to a consensus on the goal that high-risk students who spend five years at Cobblestone will experience success.

Cobblestone defined a new mission statement: “G.R.E.A.T.” became the acronym for Grow, Respect, Educate, Achieve, Together, with Tony the Tiger as the school mascot. The language arts program abolished its three-track reading groups, replaced basal readers with high-quality children’s literature, and is beginning to focus on strategic reading approaches. As a result, 100 percent of the school’s low-income students score above the remedial level, compared with 53 percent in 1986. At first, the principal was surprised when the state facilitator claimed that the progress of the low-income students was the real measure of the school’s success. Now, the school is inundated with requests from visitors curious to see how the school has managed to be successful with at-risk students.
2. Develop Challenging Curriculum

- Depth over breadth
- Integrated/interdisciplinary
- Technology

Curriculum reforms tended to emphasize depth over breadth, often through interdisciplinary, integrated thematic units. These curricula also presented authentic activities in which students applied concepts in meaningful contexts. For example, students interwove their study of science, mathematics, and social science as they measured pollutants; considered economic, environmental, and social costs of alternative solutions; and prepared recommendations for the water commission. These challenging curricula emphasized problem solving and critical thinking, often having students synthesize their inquiries in oral or written presentations. In some schools, technology both presented engaging activities and supported collaboration and writing.

Key to these successful curriculum changes has been the time and support provided to teachers for staff development and release time to plan, develop, and observe.

At Bridge Middle School, interdisciplinary teaching teams and integrated curriculum are two major components of the school’s vision. The formation of teaching teams with common preparation times facilitated the development of successful integrated curriculum units. While considering how to reformulate existing units, the social studies teachers recognized the potential of the seventh-grade Renaissance unit for interdisciplinary teaching. One of the teams, consisting of math, science, language arts, and social studies teachers, chose to develop the unit. Each teacher took the lead in deciding how curriculum goals for his or her subject could apply to the Renaissance period. History text information was augmented with a computer simulation of the Black Death, filmstrips on the Middle Ages, and videos on Newscasts from the Past and Castles and Cathedrals. Language arts goals were addressed by reading and performing plays and skits, researching and writing reports, developing timelines, and making crafts. Students might read “A Proud Taste for Scarlet and Miniver” or “The Door in the Wall,” ballads, and other poetry and short stories of the times. In math, the major project was the construction of castles to scale, requiring calculations such as perimeters, areas, and volumes. In science, students studied health and hygiene, including information on contagious diseases then and now, and compared epidemics like AIDS and the Black Death. Teachers from physical education, music, and art also participated by presenting activities in their subject areas related to the Renaissance.

The unit culminated with schoolwide events involving Renaissance activities. Students, teachers, and parents went for a night to a commercial establishment called Medieval Times, where they had a traditional medieval feast and were treated to a jousting tournament. The seventh-graders also planned a Medieval Tournament Day and a Medieval Faire Day. Tournament events included Dress a Knight, Musical Chairs with period music, Tug-O-War, Rescue a Damsel,
880 Yard Joust (dash), a Sack Race, and Javelin Toss. The Faire involved plays (English literature), bartering of medieval items (math and social studies), and exhibitions of "creative anachronisms" (science and social studies).

The authoring team piloted the unit, which was so successful that all seventh-grade teams are using it. The unit has been modified to accommodate student needs and share teacher resources. For example, a language arts teacher with a specialty or preference for a particular novel might switch teams to teach that novel.

**Heartland Elementary** is developing the first computer-assisted classroom in its state, funded by a grant of $35,000 from the district. A consultant from the state technology project, situated in Heartland's city, periodically visits the classroom to offer assistance with hardware and software needs.

A randomly assigned group of fourth-graders started in the classroom in the fall of 1990 and will stay together through the end of sixth grade. In the first year of the experiment, the teacher abandoned basal readers and spelling and handwriting texts in favor of a literature-based reading approach. Students write extensively on the computer, including other subjects as well as literature. The teacher reported students' keyboarding speeds of 30 words per minute, compared with 10 handwritten words per minute. In science, students were using Voyage of the Mimi and writing about their studies. Some students were using the computer simulation Lego Logo to build machines such as a merry-go-round, washing machine, conveyor belt, or robotic arm. A desktop publishing program allows students to develop creative presentations of their compositions and projects.

Students have made significant gains on standardized achievement tests in all subject areas and in comparison with a control group of the school's same-grade noncomputer classrooms. The teacher noted that students' writing, oral presentations, and collaborative skills were improving and that students were becoming very active and persistent in their learning activities. "They approach things more logically than their peers in other classes," she remarked. The teacher plans to develop additional thematically integrated units and to make more use of videotaping.

**A magnet middle school, McAlroy,** developed interdisciplinary units around the themes of Pride in Place, Uniqueness and Commonality, Communication, Independence and Dependence, Interdependence, and Change. Students also worked in teams of two in social studies classes to research the occupations, past times, government, language, measurement systems, trading systems, homes, food, clothing, religion, climate, geography, forms of transportation, weapons/tools, and historic figures/events of each period. In language arts class, students read and discussed the elements of an epic adventure and created overall story lines for the adventure games. In computer classes, students learned to use HyperCard and generated art work in mathematics and social studies. Each civilization's number system and calendar science classes studied the ecology and climate of each region, and physical education classes studied the psychology of games and possible physical tasks for players. This unit was extended because students seemed to be having a much higher interest in the project.

Key to these successful curriculum changes has been the time and support provided to teachers for staff development and releasing time to plan, develop, and observe. Strategies such as collaborative planning and cross-curriculum design of instructional activities are central for coordinating significant concepts in interdisciplinary projects, thus avoiding omissions or redundancy.
3. Consider Alternative Configurations of Students and Teachers

- Block Scheduling
- Team Teaching
- Collaborative Learning

Along with new curricular approaches have come new ideas about organizing students' and teachers' days. For example, block scheduling was implemented in several of the schools. Rather than allocating 40 minutes per day to a subject, block scheduling reserves more time (usually about two hours) for students to investigate topics in greater depth. This approach is in concert with the Coalition of Essential Schools' philosophy that "less is more": the school experience for students becomes less fragmented if they concentrate on learning a few things well. The extended time periods require students to approach the curriculum in a different manner. According to teachers at some of the case study sites, block scheduling had worked well in science, where they now had time to do more than set up the lab equipment before the lesson was over. It had also worked well in language arts, where students could read literature, discuss their reactions and interpretations in depth, and engage in thoughtful writing.

In most of the instances of block scheduling, teachers engaged in team teaching, working together in interdisciplinary teams. Often, students from two grades worked together. Cicely Elementary, for example, divided its students into multiage "quads," where four teachers designated two rooms for integrated thematic science curriculum, reserving the other two rooms for technology and science labs. Collaborative learning and cross-age and peer tutoring—key instructional strategies that integrate students previously relegated to pullout programs such as Chapter 1 or special education into the "regular" classrooms—provided another reconfiguration of students stimulated by schools' commitment to challenging curriculum for all students.

Cubberley Elementary has become a district demonstration site for a new Learning Center designed to serve mainstreamed students with special needs. The Learning Center started as a district response to a state compliance review requirement to mainstream special education students. The school was chosen as the pilot site partly because the principal and a number of the staff were special education certified personnel. As the major spark for the change effort, the principal arranged two days of inservice training for all staff on the concept. The Learning Center has four full-time special education and unassigned regular teachers known as the Teacher Assistance Team (TAT). These teachers teach cooperatively with 11 of the 16 regular classroom teachers, making it possible to reduce dramatically the number of student pullouts. The TAT, which previously had a pro forma function in referrals to special education, now serves as a quick turnaround mechanism for observing students with learning problems and recommending interventions. Teachers and administrators at Cubberley emphasize that the Learning Center is available to, and used by, all teachers and students as a learning resource. After some initial resistance and uncertainty, the faculty now seems to support the new program. The program serves as a prototype for the district. Two more schools were scheduled to adopt the program in 1992-93; all schools in the district were scheduled to have learning centers by 1993-94.
4. Track Student Progress with a Range of Outcome Measures

ALTERNATIVE ASSESSMENT FEATURES
- Authentic, integrated tasks
- Multiple interpretations
- Focus on process
- Collaboration
- Ongoing assessment

TYPES OF ALTERNATIVE ASSESSMENT
- Portfolios
- Projects
- Investigations

Furthermore, the thinking processes students use have become assessment targets that are not measured well by traditional tests. In many of the new curricula, students collaborate and make group presentations of what they have learned. Consequently, collaboration and presentation skills represent additional assessment targets not measured by traditional tests.

In a few of the sites, school-level staff were moving ahead with alternative curricula without having developed appropriate alternative test instruments, thereby creating difficulties. Teachers were becoming conscious of the limits, uses, and impacts of traditional testing.

In particular, teachers appeared concerned that limitations of standardized tests did not allow students to fully demonstrate their knowledge. The complex, authentic, integrated tasks in which students use inquiry and critical thinking tend to pose problems that allow multiple interpretations, not one right answer.

Regular and critical analysis of student progress was built into the reform effort.
Other forms of student assessment were seen in some areas. Some teacher teams developed more traditional forms of tests but tailored them to their curricula. Teachers using mastery learning and outcome-based education programs might take this approach. Qualitative forms of assessment that call for more teacher judgment were also being tried. Narrative evaluations rather than typical report cards were being developed in the elementary grades. In these narrative report cards, teachers might write comments about a student's progress in reading more challenging books as well as check off proficiency levels that described the student's reading along a continuum of categories ranging from emergent to developing, competent, and independent reader.

Looking carefully at test results for various groups of students was another tack taken by some of the schools in the study. In particular, progress of lower-income, special-needs, and limited-English-speaking populations was being examined to determine the impact of detracking and in-class service models. The case studies identified schools at three stages of assessment reform. In one set of schools, evaluation and a focus on student outcomes were virtually nonexistent. Their reforms were often just getting off the ground, and school staff had not yet focused their efforts on evaluations. In a second set of schools, teachers were conscious of the need to assess student outcomes, but they believed that the tests being used in the schools—typically standardized, multiple-choice instruments—were inappropriate to measure the effects of their new approaches to instruction. Even when schools and districts were experimenting with alternative forms of assessment—including portfolios of student work and performance-based assessment—teachers were struggling to understand and interpret these new measures. In these cases, the focus on student outcomes was often mixed in discussions about appropriate measures. In a third set of schools, regular and critical analysis of student progress was built into the reform effort. Many of these schools had begun by following the Effective Schools model, with its clear outcome focus and regular cycle of needs assessment, planning, and evaluation. They were beginning to use new forms of assessment as additional evidence of their students' achievement, as the following examples illustrate.

The first-grade report cards have benchmarks that specify what students are expected to attain. The school is working to implement report cards at all grade levels that are aligned with the curriculum goals.
At Ross Primary, approximately 110 children were randomly selected to participate in a nongraded, multiage, developmentally appropriate primary program. Five staff members volunteered to teach the pilot program. The team is developing integrated thematic units, whole language units, and a curriculum monitoring/student assessment tool, the narrative or continuous progress record. The new report-cards focus on students' developmental progress. Students are assessed on component areas within each subject. Language arts includes reading and writing, listening (following oral directions and comprehending oral language), and speaking (expressing ideas in complete sentences and contributing to discussions). Social studies includes comprehension of the significance of selected events in history, identification of geographical concepts and facts, and demonstrated understanding of the individual's role in the family and community. Rather than receiving letter grades based on an average of test scores, students are rated "E" for emerging, "P" for progressing, or "M" for mastering. Also noted on the report card are active participation in art, media, music, and physical education, coupled with various indicators of social and emotional development, such as a positive self-image, interaction with peers and adults, and adaptation to changes in school routine. There are sections for handwritten comments from the classroom teachers and other special area teachers. The principal sent a draft of the narrative report card home to parents and held a meeting, which 25 to 30 parents attended. Currently, the school is instituting a longitudinal portfolio that will gather a student's work over the course of three years.

The McAlroy School (grades 6-8) teacher teams have designed their own student assessment instrument to be used in lieu of the district report card. The instrument takes into account process as well as outcomes, and includes a narrative description of student progress. Students are assessed at the end of each thematic unit—six times during 1990-91. Pre and post comparisons of McAlroy's first year showed improvements in students' attitudes toward school and learning.

Birch Elementary teachers break down scores on districtwide tests by grade and instructional area. The school uses the information to adjust its instructional program. In addition, there are regular classroom assessments and quarterly report cards. The first-grade report cards have benchmarks that specify what students are expected to attain. The school is working to implement report cards at all grade levels that are aligned with the curriculum goals. To provide information on Effective Schools correlates and the school's identified Essential Elements of instruction, the district administers an Effective Schools survey annually. The results are used to identify areas that need attention.
BUILD A SCHOOL CULTURE THAT NURTURES STAFF COLLABORATION AND PARTICIPATION IN DECISION MAKING

1. Find Ways for Teachers and School Staff to Collaborate on Significant Changes Needed in the School

2. Seek Ways to Reformulate the Roles and Authority of Teachers and Administrators

3. Consider Reformulating Staffing, Resources, Time, and Space to Increase Staff Collaboration

Perhaps the most common component of school-based reform found in this study was organized efforts to increase interaction and communication among teachers and between teachers and school administrators. Collegial collaboration, of course, is a central strategy of the Effective Schools model, based on research that shows that unusually effective schools are marked by productive communication and joint work among staff members.

The shift to shared decision making, responsibility, and authority creates new opportunities and pressures for many school staff. On issues surrounding curriculum and instruction, teachers bring their technical training and classroom experience to the table. Strategies for productive collaboration in planning and teaching, however, pose a challenge for some.

Successful school-based reforms developed ways for school staff and administrators to focus on significant changes needed in the school.

For issues of school governance—i.e., running the school—teachers seek strategies for efficient management and shared decision making. Administrators contribute their training and experience in these areas, but they struggle to share authority and facilitate conflict resolution.

Three strategies seemed key to building a school culture that nurtures teacher collaboration and shared decision making. First, successful school-based reforms developed ways for school staff and administrators to focus on significant changes needed in the school. Second, the school reformulated the roles and authority of teachers and administrators to facilitate shared decision making for goals, plans, implementation, and monitoring. Third, the schools designed quite different allocations of staff, resources, time, and space to promote the joint work of staff.

When the pieces came together, teachers and administrators reported newfound enthusiasm and rapport. “We’re a family.” “We’re in this together.” The advice below draws on their experience.
I. Find Ways for Teachers and School Staff to Collaborate on Significant Changes Needed in the School

- Informal arrangements
- Councils
- Committees

The ways staff collaborate may be informal and unstructured, growing from an innovation piloted by a few enthusiasts. In other cases, such as South Mission High’s Effective Schools approach, formal committees and procedures are created as part of a programmatic reform blueprint. The creation of a leadership council or some form of school-based decision making was quite common in the case study schools. Committees and task forces focused on specialized areas of interest and expertise. The format of interactions appeared less important than the degree to which school staff felt ownership—that they initiated or controlled the change process. The surveys and interviews revealed that two-thirds of school-based reform efforts were initiated at the state and district levels, but the most successful ones were designed and coordinated on a day-to-day basis by school staff. Certainly, the mere existence of these mechanisms to stimulate interaction does not guarantee that involvement will take place, but the successful reforms studied devised a number of promising strategies.

Cicely Elementary’s reforms began when eight teachers volunteered to pilot an alternative science curriculum. To participate in the experimental program, the program required that the entire staff agree to support the pilot teachers in their effort. The principal worked to get this commitment for the first eight teachers. The pilot teachers made a three-year commitment and began by participating in a two-week training session in the summer to develop the theme for the year. The district augmented the grant that funded the summer training with two to three release days per month for additional training and coaching. District staff development days were also provided to school staff for inservice training on related curriculum content and instructional methods. As the pilot teachers developed their team approach, they spread word of the program to their colleagues. In the third year, over 70 percent of the faculty participated in the program.

Cicely also has brought the staff closer together with two retreats, which included support staff and parents. Funded by a grant from a private corporation, the first retreat focused on developing a school vision and building consensus around a set of reform initiatives. These activities are carried forward throughout the school year by a leadership team of administrators, teachers, classified staff, and parents.

Teachers at Heartland have ongoing opportunities to collaborate on a variety of instructional innovations. A typical pattern for the introduction of a new approach is for one or two teachers to seek specialized training in it and then to pass the strategies on to their colleagues. Teachers pursue training opportunities in their own areas of interest. Cooperative learning, for example, was started and sustained by the efforts of two teachers who serve as cooperative learning “teacher coordinators” for the rest of the staff. Mastery learning, a newer effort, is the pet project of a teacher and the principal. The teacher is piloting several mastery learning units in her own class; the principal is enlisting other teachers to expand the pilot in the future. Heartland’s biweekly instructional staff meetings have been an important mechanism for coordinating these innovations. Teachers discuss new ideas and brainstorm about existing programs. By supporting and channeling teacher energies effectively, the principal has assembled an impressive roster of change efforts and a school culture where collegial innovation and collaboration are the norm.
2. Seek Ways to Reformulate the Roles and Authority of Teachers and Administrators

TEACHER VOICE IN:
- Staff development
- Curriculum and materials
- Budgeting
- Personnel
- Shared decision making
- Shared school management
- Team teaching
- Administrator facilitators

The pattern of teacher involvement in school-based decision making was made possible by a growing movement among districts to devolve more authority to the school level. More than half the districts in the national survey sample have given schools more authority in the areas of staff development and selection of curriculum and materials. A relatively high percentage of districts have given schools more discretion over scheduling and student assessment: fewer than a third of the districts, however, have been willing to hand over authority in areas related to budgeting and personnel action. A small percentage of districts also grant schools waivers from various district and state requirements, such as use of norm-referenced, standardized tests.

In most of the schools visited, the principal's role vis-à-vis teachers, central office staff, and peers was being redefined, in some cases with a struggle. At South Mission High, although teachers had an organized voice in the decision-making process, their input was considered solely a recommendation to the principal, who had final authority. At one rural elementary school, teacher involvement in school affairs was limited to the classroom. The principal was the organizational officer and shared none of the administrative powers with the teachers. In schools granted more authority by districts, principals gained a greater degree of control over important budgetary and personnel decisions. Authority to hire teachers gave some principals a new opportunity to build consensus and further their visions. At the same time, school-based reform also often diluted the principal's authority by giving teachers more responsibility for school-level decisions. Including teachers in shared school management has helped them to feel more professional and has raised morale.

Shared responsibility for student learning has also changed the roles among teachers and between teachers and principals. Teachers are no longer the sole arbiters of what happens in isolated classrooms; rather, team teaching arrangements involve teachers in planning and teaching together. In some schools, administrators were recast as facilitators with responsibility for supporting teachers.

Teacher input into school matters is not new, of course, but charging teachers with responsibility for assessing needs, determining the school's direction or focus, proposing changes, and seeing that they work is far less common. Furthermore, giving teachers authority to enact their recommendations is a significant change in the governance of many schools.
Arbor Elementary has a long-standing reputation for innovation. It was the first school in the district to take on the Effective Schools reform. The new principal spearheaded the shift to participatory management, expanding the authority of the decision-making team beyond that of the Effective Schools planning teams, which was limited to Effective Schools objectives. According to the principal, there is no facet of her job in which the team is not involved, despite team members’ initial reluctance, even fear, at taking on roles with increased responsibility. Over time, the team has begun doing scheduling, budgeting, and interviewing secretaries. The principal opened the previously locked supply closets and said, “This is your school. You run it.” When the principal delegated authority to hire a paraprofessional, she was challenged by the teachers. She explained that the staff would have to work with whoever was hired. She sat down with them and helped to make up the interview questions. Now the team routinely interviews people for nonteaching positions, and the district will allow schools more voice in teacher hiring next year. If the principal is off campus, the team handles emergencies.

School staff volunteer or are nominated to serve on the participatory management team. The teachers report feeling completely involved in their school’s reforms. Although the districtwide committees make curricular decisions, most of the Arbor teachers serve on one of the committees.

More than half the districts in the national survey sample have given schools more authority in the areas of staff development and selection of curriculum and materials.
3. Consider Reformulating Staffing, Resources, and Time and Space to Increase Staff Collaboration

- Provide common planning time
- Fund joint planning
- Reallocate administrative budget
- Reassign support staff
- Share classrooms and labs

The third set of strategies for nurturing productive collegial interactions in school-based reforms changed staffing patterns and resource allocations. Teachers from different disciplines, grades, and specializations were obtaining common planning time. Reallocation of administrative funds supported additional joint planning. In some cases, administrators, specialists, and support personnel were assigned to support classroom teachers. Teachers participated in deploying funds and resources to meet reform goals. Class schedules were revamped to allow for extended team teaching. Teachers shared classrooms and resource rooms.

Empire High School has made major changes in its administrative structure and instructional arrangements. By coordinating administration of both the high school and the middle school, administrative positions were reduced, and the remaining administrative posts were changed to facilitating "coordinators." Also, some administrative support staff were reassigned to help teachers with paperwork. This "flattened" hierarchy underscored the role of administration as supportive of teachers and instruction, rather than supervisory.

The reorganization of instructional arrangements has increased the joint work of teachers at Empire. Teacher teams work with two divisions of students. Four "core" teachers (math, science, English, and social studies), special teachers as needed, and rotating fine arts teachers work together and share a common planning period. "Macro scheduling," a form of block scheduling, will be implemented, with two hours of history and two hours of math each day, followed in the second semester by two hours of English and two hours of science.

At Cicely Elementary, administrative changes and instructional rearrangements also support teacher collaboration. When a vice-principal position became vacant, the principal created two part-time positions—a Coordinator of Restructuring and a parent liaison. The school also reorganized classrooms into "quads" in which four teachers work with 100 students in a variety of teaming arrangements. In each quad, two rooms are used to teach an integrated science curriculum; the other two rooms serve as science and technology labs.
PROVIDE MEANINGFUL OPPORTUNITIES FOR PROFESSIONAL GROWTH

1. Identify and Prioritize the Topics and Types of Staff Development That Will Promote the School's Reform Goals

2. Plan a Coherent, Sustained Program for Professional Growth That Will Provide Time and Expertise for Staff to Acquire, Implement, and Reflect on New Approaches

3. Explore a Variety of Methods for Developing Expertise

Providing teachers with more opportunities to think critically about their work with one another and to help devise ways to improve the schools often creates significant challenges for them, some of which they may be ill-prepared to tackle. Research findings about how students learn have led to significant shifts in desired outcomes, curriculum design, instructional strategies, and student assessment. Moreover, site-based management draws teachers into decisions about school budget allocations, management, teacher hiring and evaluation, and working conditions. To deal with these new and varied demands, many teachers need to update their knowledge and acquire new knowledge and skills.

In the national survey, the most common strategy (used by 82 percent of the districts) to support school-based reform efforts was the provision of staff development for teachers. Not surprisingly, instruction was the most common topic (86 percent of the districts), followed by schoolwide planning (63 percent) and shared decision making (56 percent).

The case study data suggest that, in some schools and districts, professional development not only was common but was taking on a broader definition. In addition to the traditional pattern of providing discrete, one-shot workshops, some schools were seeking new, more flexible approaches to build staff knowledge and skills. First, schools were developing priorities for the many staff development areas in which they felt the need to develop new approaches. Second, schools developed plans for coherent, sustained professional growth programs that provided staff with access to the time and expertise necessary to acquire, implement, and reflect on new approaches over a period of years. Third, schools explored a variety of methods for expanding staff expertise. The most promising approaches for providing meaningful opportunities for professional growth are highlighted.

The most common strategy to support school-based reform efforts was the provision of staff development for teachers.
1. Identify and Prioritize the Topics and Types of Staff Development That Will Promote the School’s Reform Goals

PLANNING COMPONENTS

- Develop vision and goals
- Analyze needs and resources
- Prioritize topics
- Identify types of professional development

PLANNING MECHANISMS

- Surveys
- Retreats
- Design Teams
- Ongoing staff meetings

A host of promising information and practices can be identified in the areas of curriculum, instruction, learning, and assessment. Studies of teacher effectiveness and professional growth have also yielded productive approaches for collegial interaction and capacity building. Participatory site-based management may ask teachers to learn both the mechanics of running the school (e.g., supplies, buses, special events) and administrative techniques (e.g., conflict resolution, supervision and coaching, staff selection and evaluation). In the successful reform efforts, school staff and members of the community found ways to engage in strategic planning. They developed a vision and goals for their reform effort, then analyzed the school’s needs and resources to identify the staff development opportunities they needed most for areas targeted for significant change. Mechanisms for identifying staff development needs ranged from formal surveys, retreats, and design teams, to informal, ongoing staff meetings and targets of opportunity (e.g., a state-sponsored pilot program). What seemed to distinguish successful efforts from struggling initiatives was the systematic analysis of school and staff development needs, available resources, and staff receptivity and capacity. These analyses enabled the school staff to prioritize staff development topics and identify the most suitable types of professional development. Not surprisingly, school staffs that felt oppressed by mandates, overwhelmed by myriad demands, and reluctant to change did not seek, participate in, or implement staff development supporting their schools’ reform goals.

School staff and members of the community developed a vision and goals for their reform effort, then analyzed the school’s needs and resources to identify staff development opportunities.
South Mission High School followed the Effective Schools process to identify needs and set school and staff development goals. Teachers reported that the classroom observations instituted the first year to monitor the status and progress of the Effective Schools classroom variables focused the entire school on improving instructional practices. A needs assessment administered the second year provided input to the Effective Schools council and seven correlate committees. As a result, staff identified the areas of safety, school climate, and improving academic performance as their highest priorities. Staff development related to these areas included research on student grouping and the adverse effects of tracking, as well as opportunities to visit schools that had eliminated tracking.

Empire High School moved to long-range planning when its initial array of improvement efforts proved inadequate. In 1989-90, a group of teachers, with the help of the principal, sought to implement a number of reforms in the obviously failing school. These included a new writing program, new computer lab, experimentation with teaming arrangements among teachers, and creation of a participatory management structure in the school. By 1990, the teacher-leaders realized that things were still not working and that bolder changes were necessary. Inspired by the ideas of the director of the district's professional development academy, the teachers adopted a more systematic approach. The Design Team began with three key components: (1) a planning year, (2) a quest for outside resources, and (3) an interim administrative structure. The school benefited from its previous experience with participatory management, which produced a cadre of teachers who had been involved in the decision-making process. Also, the Design Team was successful in obtaining outside resources ($375,000) to pay for release time for teachers. In addition to the interim administrative structure, the school adopted a new curriculum structure that divided the school into three divisions. Teacher teams within each division share a common planning period and select staff development offerings available through the district professional development academy, the Coalition of Essential Schools, or a local university. The teacher teams currently in place have begun to experiment with team teaching, thematic units, and cooperative learning.

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The professional development agenda at Heartland Elementary has grown primarily out of teachers’ individual interests, spurred, at times, by opportunities offered by the district or state. In some cases, funds and topics were provided by a restructuring program. A computer-based classroom was initiated by district funds. In another program, a teacher devised peer tutoring to help at-risk students as part of her master’s studies. Generally, two teachers volunteer to become resource people for a program and are responsible for training the rest of the staff. The biweekly instructional staff meetings serve as the vehicle for coordinating these initiatives, considering new ones, and working out the wrinkles of new programs under way.

Manfield Elementary’s reform agenda got off to a slow start. The school began its Effective Schools process in 1986. The Action Planning Team focused extensively on school beautification and discipline, following the advice of a state facilitator who suggested that it might be safer for teachers to “cut their teeth” in such a risky business venture as schoolwide decision making by first addressing nonacademic issues. The rationale was that once the skills of collaborating and sharing ideas with other teachers had been honed and some barriers to communication had been bridged, teachers might be willing to risk addressing their own roles in promoting academics and preventing student failure.

Then, in 1987, the new principal expressed interest in academic reform. At the same time, the district had hired an assistant superintendent who was interested in curriculum reform, especially the development of integrated, multidisciplinary units. The school is now initiating a home-school relations project, which includes a family mathematics program. In addition, the school is making some curriculum changes by integrating subject areas to create interdisciplinary units. Although Manfield’s largely veteran staff already have a large academic repertoire, they have selected staff development sessions relevant to thematic instruction on such topics as process writing, reading comprehension strategies, and Chapter 1 services.
2. Plan a Coherent, Sustained Program for Professional Growth That Will Provide Time and Expertise for Staff to Acquire, Implement, and Reflect on New Approaches

- Multiyear plan
- Related topics
- Ongoing sessions
- Follow-up coaching
- Release time

The successful schools had been working on their reform agendas for at least three years. In general, the teachers were building their expertise through a coordinated set of formal staff development sessions from experts and coaches, as well as from informal collegial interactions. The professional growth of the teachers in the successful reform schools thus was developing over a multiyear period. They also had a voice in determining the topics of formal staff development sessions. A significant departure from the age-old "make and take" workshops, the sessions might present a series of related topics, promoting an in-depth understanding of an area, rather than a potpourri of unrelated, "hot" topics. For example, elementary teachers might attend staff development sessions on literature-based reading, writing about literature, writing in the content areas, cooperative learning, and methods for assessing student writing. Furthermore, precious pupil-free staff development days might not be devoted entirely to formal workshops on new information but also to ongoing, follow-up working sessions focusing on teachers' experiences implementing new approaches in their classes. There was evidence that the lecture ("sage on the stage") format was being replaced by the coaching ("guide by the side") format. In these sessions, teachers learn from each other as well as from expert coaches. Finally, release time allotted for collegial collaboration and reflection was becoming more common. Teachers had time to develop new materials and approaches together and to reflect on the strengths and weaknesses of their efforts. Many of the staff development programs and opportunities described by the school staff clearly treated teachers as professionals who could shape their own growth.

The teachers at Cicely Elementary embarked on their curricular reforms four years ago. The program required that teachers make a three-year commitment, and it supports a five-year process for teachers to learn how to develop their own interdisciplinary instruction. In a two-week training institute each summer, teachers develop the theme for the year. Teachers receive two to three release days per month from the district for additional training and coaching. A separate grant supports training for Cicely teachers in collaborative decision making and leadership. The Leadership Team is supported by action teams specializing in areas such as curriculum, staff development, and school organization. The district plans to shift control of eight additional district-sponsored staff development days to the schools.

The Design Team at Empire High School, inspired by the ideas of the director of the district's professional development academy, planned a sustained staff development program. They obtained funding for release time for teachers to do ongoing team planning. The school also tapped three other sources of training: (1) the Coalition of Essential Schools, (2) the district professional development academy, and (3) the local university.
Advice from colleagues who were actually using innovative approaches in their own classes was often considered more credible than exhortations from researchers.

At Sunset Middle School, reform efforts began with the principal’s selecting five teachers to attend a summer institute on the middle school concept at an out-of-state institution of higher education. These five teachers returned with some of the skills and knowledge to begin leading the change effort. One of the changes implemented was the formation of the Program Improvement Council (PIC). The PIC is made up of administrators and teacher representatives and is the decision-making body of the school. The PIC creates a structure and an opportunity to build teacher-leaders who go on to lead components of their school reform efforts.

Although the principal has since left, the original five teacher-leaders and new ones have continued guiding the reform efforts at their school. One of the original five is the school improvement coordinator. Another has been chairing the annual self-review team for a number of years. The team annually reviews the school on state quality criteria and makes recommendations for improvement. Funds received from the state school improvement program are an important resource for Sunset’s change efforts.
Some schools and districts arranged for periodic visits to other schools. Teachers traveled to other schools that had already begun experimenting with new ideas. In large metropolitan areas, school visitations could be accomplished during a staff development day by simply driving across town. In other cases, special funding could be obtained to fund travel to more distant spots. Observing innovations firsthand seems to overcome one of the shortcomings of workshops given by outside experts. Teachers frequently complain that the presentations of theory, research, and recommendations often seem too abstract. For many teachers, “show me how it works” is the credibility test of a new approach.

Some of the schools built new relationships with universities. They approached local universities to develop ways teachers could learn new techniques and receive credit as well. In some cases, courses were held at the school site.

At Edgemont Junior High School, the opportunity to visit and learn from the experiences of middle schools in other districts had a profound effect. Edgemont teachers had been reeling from the number of reforms being initiated at their school. The teachers’ visits to other middle schools convinced them that the schedule for Edgemont’s dramatic reform, transition to a middle school, was much too rushed. The teachers’ concerns convinced the principal and the district to rethink the schedule and scale of middle school implementation efforts.

After reading research about the effects of grouping on student learning, South Mission High School teachers had the opportunity to fly to another district that had successfully eliminated tracking. There teachers could see how colleagues worked with heterogeneous groups and talk with teachers about the obstacles they encountered and overcame.

In one Kentucky district, teachers had traveled to Ohio, North Carolina, and Indiana to observe schools that had implemented multi-age groupings in the primary grades.

Empire High School has developed a close working relationship with the local university. University professors serve on the Design Team, which is in charge of planning the restructuring of both the high school and the middle school. Furthermore, Empire has formed a partnership with the university that includes on-site teacher preparation for university students and on-site in-service for Empire teachers at the school site.

Arbor Elementary has become a “training camp” for aspiring teachers. Before their student teaching experience, teacher candidates from a local university get an opportunity to work in the classrooms. The principal views the candidates and their lessons as “new blood.” “We provide them with the kids, and it gives the kids new faces and keeps my teachers on their toes.”

Arbor has also been making efforts to recruit more minority teachers. Although the student population is becoming increasingly minority, Arbor currently has only one minority teacher, who, because of the state fiscal crisis, has received a notice of possible termination. Through district collaboration, a Historically Black College in a southern state sent 25 African-American student teachers to the district. The arrangement worked well.
Schools also were finding ways to pool resources to build ongoing capacity. Many schools reside within areas served by state-funded regional service centers, such as the county offices of education in California. One mission of these centers is to serve as professional development resources. Also, large districts may have their own staff development departments. Federally funded regional laboratories and technical assistance centers are other possible resources for professional growth. Schools planning their reforms can check the offerings of such agencies to see whether the services offered meet the staff’s needs. In the study, a few schools and districts had banded together to support ongoing consortia or centers for professional development. A few interested schools might also pool their resources to ensure the regular availability of technical assistance.

Empire High School is fortunate to have access to a professional development academy housed in the district. The academy, supported by foundation funds, has a strong director, a restructuring team, and a commitment to school-based, teacher-directed staff development. The facility offers an auditorium, a well-stocked professional library, and various conference and seminar rooms. Staff of the professional development academy serve on the Design Team, which leads Empire’s restructuring efforts. The academy provides expertise and technical assistance on a regular basis from staff that the school faculty trust.

Summary

The lessons drawn from the schools in the study can provide some basic guidelines for schools embarking on site-based reform. As noted at the beginning of this section, three features were found to be pivotal components of the successful school-based reforms:

- challenging curriculum for all students
- a collaborative school culture
- meaningful opportunities for professional growth

Although schools created varied approaches for implementing these features, their presence and integration characterized successful, dynamic reform. The next section provides examples of schools that have, to various degrees, incorporated these lessons into their reform efforts.

Three features were found to be pivotal components of the successful school-based reforms: challenging curriculum for all students, a collaborative school culture, meaningful opportunities for professional growth.
This section returns to the big picture. For readers interested in how more of the case study schools pursued their reform agendas, additional portraits are presented to illustrate how schools orchestrated their reform strategies, as seen during the 1991-92 school year. These portraits place the reader inside the case study schools to experience the variety of ways that school-based reform occurs. The portraits point out how each school has enacted key features. Views of two successful schools are balanced with portraits of schools pursuing, but not yet reaching, their goals.

The individuality of the reforms encountered in the study cannot be overstated. At each school, the context, vision, precipitating events, key participants, goals, conflicts, and attempted resolutions varied. The effective efforts, however, shared commitments to improved student learning through staff collaboration, responsibility, and growth.
Changing a School from the Classroom Out: Cicely Elementary

Cicely Elementary's reform contrasts in interesting ways with South Mission High's restructuring story. At Cicely, the reform process began with changes in classroom practice among a small group of teachers. These changes in turn led to shifts in working conditions, staffing arrangements, and governance structures throughout the school.

Everyone interviewed at Cicely agreed that this was an institution different from the one of four years before—and a much better one. Most fundamentally, what took place in the classroom between teachers and students, as well as among students, had shifted to a more challenging, integrated, problem-solving, hands-on, real-life-based approach to learning. Teachers' expectations for all students had increased: the school sought to create bilingual and biliterate students. Classrooms are being transformed.

Context

Cicely Elementary serves about 800 students in an agricultural region. Over 85 percent of the students are from Latino backgrounds, 60 percent are classified as limited English proficient, and a third of the student population come from families who migrate with the seasonal crops. Twenty-one of Cicely's 28 teachers hold bilingual credentials.

In 1987, Cicely's reform was stimulated by the superintendent's interest in an innovative science curriculum. Funded by state and private grants, this curricular reform engendered far-reaching systemic reform—not only in Cicely Elementary but in the entire district.

Designing Thematic Curriculum and Bilingual Education

The major curricular reform is an interdisciplinary, thematic approach to teaching science. Teaching and materials are bilingual. Teachers have learned to use cooperative learning and create a corner or space that is "healing," to develop a sense of home in the school. Multitage student groupings will be instituted to create "family" groups. Four teachers will establish quads: two rooms for the integrated thematic curriculum, the other two for labs (technology and science). A key component of the multitage grouping is cross-age and peer tutoring.

Although Cicely students have low scores on standardized tests, older students' scores are improving. The school staff feel that these tests do not measure what Cicely students really know, so the school is looking for other types of measurement. Instead of report card grades, Cicely teachers are piloting narrative conference forms based on language arts portfolios and teacher-developed authentic assessments.

Teachers Stimulating Change

The principal of Cicely, there for nine years, has had to change his style to allow more shared decision making with the teachers and parents. When a vice principal position opened up, he replaced it with two part-time positions, a Coordinator of Restructuring and a parent liaison.
Community support for the instructional program, school leadership, and approach to discipline was overwhelmingly positive.

Cicely teachers have a variety of collaborative strategies. The science program has a strong coaching element and requires that the entire staff agree to support the pilot teachers in their efforts. Now over 70 percent of the staff participate. The entire Cicely staff, joined by parents and support staff, attended a three-day summer retreat last year to develop a shared vision for change in the school. As a result, the school has a Leadership Team of administrators, teachers, classified staff, and parents to monitor the restructuring process. Soon the district will shift control of eight additional district-sponsored staff development days to the schools.

Four years ago, following a districtwide awareness session about the alternative science program, eight Cicely teachers decided to participate. Teachers make a three-year commitment and participate in a two-week training each summer where they develop their theme for the year. They receive a stipend plus funds for purchasing materials. Recognizing that significant curriculum reform takes time, the science program supports a five-year process. The district provides each participating teacher with two to three additional release days per month and eight more days for other staff development activities. A three-year, $250,000 grant from a private corporation funded the summer institutes, where all Cicely staff received training in leadership, consensus building, and developing a vision. To plan and monitor reforms, the Leadership Team is supported by action teams specializing in curriculum, staff development, student assessment, partnerships, and school organization. Further support for the restructuring effort came from a state planning grant. In addition, the district has sponsored information dissemination sessions on topics such as authentic assessment, multigraded classes, creating a community school, and the process of organizational change.
Teachers had access to a rich menu of staff development opportunities and consumed them with gusto. The three-day retreats increased staff capacity for problem solving and collaboration. Teachers had substantial control over what took place in the school.

Staff repeatedly commented on teacher-initiated reform, acknowledging that the district helped with big ideas but stating that teachers drove implementation in the classroom. Teachers also felt that Cicely could change faster, but that they needed to wait for the

**Context**

**Arbor Elementary** is one of nine elementary schools in a suburban district serving 5,500 students. The demographics of the area are changing rapidly; about half of Arbor’s 350 students are from African-American, Hispanic, or Asian backgrounds. The principal describes the families as “extremely needy.” She has been in the district 24 years and is in her fifth year of principalship at Arbor. She believes that teachers must be involved in school management and is described as “laid back.” She enjoys good relations with the union. Parent involvement is high and visible.

In keeping with the school’s reputation for innovation, Arbor’s teachers voted to be the first involved in Effective Schools in 1984-85. Despite feeling overwhelmed occasionally, they maintain their enthusiasm for improving their school.

**Coordinating and Streamlining Curriculum**

Arbor staff are fully involved in the district’s dual curricular thrusts, interdisciplinary curriculum and design of common goals and standards. The school is in the midst of mapping curriculum to eliminate overlap, adopting a conceptual approach to mathematics incorporating manipulatives, and moving away from basal to trade books, charts, and process writing. Students engage in oral activities in both language arts and mathematics. Teachers have begun using cooperative groups and problem-solving strategies. A combination of Chapter 1 and Chapter 2 funds have been used to purchase multicultural material. Assertive discipline methods have been adopted to maintain a productive classroom environment. For students with special learning needs, Arbor has instituted a collaborative/consultation model to work directly with the classroom teacher, reducing the amount of unnecessary referrals for special education services.

The school staff communicate to students that they can achieve. On test days, students wear special tee shirts that read: “Do not disturb. I’m testing.” Before testing, teachers recount to students the story of “The Little Engine That Could.” Teachers have woven emphases of the state testing into their curriculum. In the first two years of the state testing, the school did poorly, partly, the principal thought, because the tests did not reflect the curriculum.
district to catch up. What began as an experimental curriculum had stimulated schoolwide and districtwide reform.

**The Little Engine That Could:**

**Arbor Elementary**

Arbor Elementary's reform drew energy from the school's history of innovation. Their approach evolved from attention to a few,

Now the school ranks at or above the state average. Motivated partly by the goal to extend common goals to kindergarten, the district is beginning to investigate alternative assessment methods for all the primary grades.

**Pioneering Partners**

At the vanguard of the Effective Schools movement in their district, Arbor teachers voted to begin their reform efforts in 1984. Working with a state facilitator, the first action planning team, composed of the principal and several teachers, identified two improvement goals: a safe and orderly environment and improved student performance in basic skills. With input from the rest of the school staff, they developed a plan and worked on the two goals. In 1988, the new principal launched another survey of the staff to ascertain progress on previous goals and set the new goals of communication and curriculum clarification and articulation. The second action planning team changed to a participatory management system to allow ongoing input: The staff began doing scheduling, budgeting, and interviewing secretaries. The eight elected members of the decision-making team meet every Tuesday to discuss change efforts, along with agenda items submitted by the staff during the week. Although the district hires teachers, the school will have more voice in decisions next year. Curriculum decisions are handled through districtwide committees, yet all of Arbor's staff are involved.

**Growing with the Job**

Arbor has an older staff, all of whom hold master's degrees. The principal wants to change the staffing to reflect the student diversity, since only one new teacher is African-American. Meanwhile, the veteran teachers are in the midst of learning how to serve a student population different from the one they were trained to teach. Reportedly, the staff development program is changing from the high-priced, one-time session to an ongoing approach. Now each school has the same amount of funding available to select its own offerings. In addition, Arbor hosts many aspiring teachers from a nearby university. The principal reports that the student teachers bring many new ideas and much enthusiasm. Along with formal staff development opportunities, the principal expends considerable energy "walking teachers through new roles and responsibilities."
nonthreatening goals to an ambitious array of
initiatives. Throughout their journey, the prin-
cipal and staff built on close, effective commu-
nication and collaboration.

Arbor presents the opportunity to look at a
change of leadership in the Effective Schools
Program and its impact on the school reform
effort. In 1984, Arbor's principal agreed to be
the first in the district to attempt the Effective
Schools process. The current principal, sup-
ported by the staff, perpetuates the school's
reputation that "We at Arbor will try it."

In accord with a management style character-
ized as "fluid," the new principal continued the
school's reform efforts but moved them to a
more dynamic, interactive process. She felt that
the structured action planning teams were too
limited by their assigned roles and procedures,
so she designed a more fluid, responsive deci-
sion-making process.

The curriculum reforms appeared to be
changing classroom practice. Although dis-
trictwide committees directed curriculum
efforts, the Arbor staff served on the commit-
tees. The staff were incorporating effective
instructional and curricular strategies such as
math manipulatives, children's literature,
process writing, and cooperative student learn-
ing groups. The purchase of multicultural
materials indicated the staff's awareness of the
need to make learning activities relevant to stu-
dents' backgrounds and to help students learn
about cultures other than their own.

Achievement test scores for Arbor students indi-
cated that the instructional program was
preparing students for the state tests. The alter-
native assessment methods the school was just
beginning to explore will be another source of
evidence of student progress.

Teachers at Arbor had also assumed a much
more prominent role in the school's daily man-
germent. Not only did the decision-making
team meet weekly to discuss progress on
school goals and issues brought up by the staff,
the team dealt with scheduling, budgeting, and
interviewing. The principal felt comfortable
leaving the team to handle unforeseen emerg-
ences as well as ongoing issues. Arbor teach-
ers seemed to have developed a sense of own-
ership and responsibility, and a good working
 rapport. One teacher observed, "There's a lot
of teamwork here...everybody comes through.
Teachers come with a shared responsibility to
see students achieve." Another teacher said,
"The principal makes it her business to let you
know you're doing a good job. This whole
staff reacts to that."

Arbor teachers had a variety of opportunities
to grow professionally. The principal guided
the decision-making team through many of the
managerial tasks. The school could also
choose the substance and form of staff devel-
 opment that met its needs.

The major pieces of the reform puzzle
seemed to be in place at Arbor. The teachers
were able, willing, and experiencing progress.
Leadership and support fueled "The Little
Engine That Could."

On the Way: Empire High School

Empire High School based its reform efforts
on Effective Schools processes. Reform began
at the schoolwide governance level, then
moved to more site-based management. Major
changes in the organization of the school were
under way, but shifts in teaching and learning
were only beginning to result from these
efforts.

During the study, Empire was in the process
of radically restructuring its administration and
its academic program. For those teachers
active in school-based management and the
teaming arrangements, life in the school was
dramatically different. Yet these changes were
in their early stages—during the 1991-92 school
year, only 20 percent of the students and teach-
ers were in teaming arrangements, and many
Context

**Empire High School** is in a highly innovative large city system. Following desegregation legislation of the mid-1970s, the predominantly white student population has shifted to 60 percent white, 30 percent African-American, and 10 percent Asian-American. Empire is trying to change its reputation as the school ranking last or next to last on every indicator of success used in the district.

The reform was stimulated by a special assistant to the superintendent and head of the district's professional development academy, who was also an ex-principal in the district. He is an extremely progressive educator who seems to be taking on this school as a model project to show what can be done. The reform effort began in 1989, when a group of teachers, with the help of the principal, sought to implement a number of changes in the obviously failing school. Despite new curriculum programs, participatory management, experimentation with teaming, and involvement in the Coalition of Essential Schools, teachers recognized by 1991 that bolder initiatives would be necessary to reach their goals. At the same time, the assistant to the superintendent had been looking for a secondary school to try a plan he had for restructuring. He and the teachers agreed on a process for initiating three key components of what came to be known as the Empire initiative: (1) a planning year, (2) a quest for outside grants, and (3) an interim administrative structure.

Revamping Class Divisions

The design team promotes a new vision of the school that views it as a headquarters for learning, not the only place learning can happen. Building on a couple of attempts at grade-level teaming, the traditional grade and subject-matter structures are being revamped to create three divisions: (1) a preparatory division for 9th- and 10th-graders, grouping them into teams of 125 students with five teachers presenting interdisciplinary instruction; (2) a transition division for 11th- and 12th-graders focusing on preparation for college and the work force; and (3) an alternative division for students who can’t attend school every day.

In the 1991-92 school year, the preparatory division set up two teams, one at 10th and one at 9th grade, to serve as a model for the entire teaming effort in 1992-93. The 125 students will be located in the same physical area. The teams will consist of four “core” teachers (math, science, English, and social studies) plus one or two special teachers (English as a Second Language, Chapter 1, special education) whose services will be used as the team decides. Another set of teachers (art, music, foreign language) will rotate in and out of the teams (staying for 12 weeks each time). Finally, during each team’s common planning period, students will go to a set of “related” teachers (e.g., business and orchestra). Empire plans to shift to “macro” scheduling, where students have two hours of history and two hours of math each day for one semester, with two hours of science and two hours of English the following semester. Another team has just begun to integrate math and English, using a thematic approach.

continued on page 111-8
Teachers at the Helm

The reform-minded teachers at Empire High School have forged a participatory governance structure guided by teachers. In the 1991-92 planning year, a Design Team made up of school staff, administrators, community members, parents, and university staff took charge of designing the joint restructuring of both the high school and the middle school. In a makeover of the administrative structure, the number of administrative positions was reduced and the remaining positions were changed from top-down decision-makers to facilitating “coordinators.” Moreover, some administrative support staff were reassigned to help teachers with paperwork. At Empire, the participatory management committee has decision-making authority for the high school; a series of subcommittees focus on areas such as curriculum scheduling; the teacher teams have a fair amount of authority over how they structure their courses.

Learning to Navigate Together

The teachers at Empire are attempting to accomplish a great deal, but most of the teachers feel positive about the process and support. The staff entered the planning phase better prepared than those at many of the schools in the study. First, the school had a participatory management structure in place for a couple of years, so a cadre of teachers and parents exist that have been involved in the decision-making process. Second, the outside resources secured by the Design Team from grants ($375,000 this year) pay for release time for teachers to do team planning. The three administrative positions eliminated also freed up funds for planning time. Third, because the school is a Coalition of Essential Schools (CES) participant, two or three of the staff have had extensive training at Brown University, and others have been trained by local CES staff. Fourth, the change effort is supported by the district’s professional development academy, led by the administrator whose basic ideas shaped the reform design. Finally, the school has formed a partnership with a local university that provides for on-site graduate courses for the teaching staff.

classrooms and teachers were functioning as they had for years. The curricular initiatives in progress, however, held great promise. A writing program, computer lab, integrated thematic curricula, extended time blocks to allow study of subjects in depth, cross-age grouping—all represent research-based effective practices. It is too early to assess the effects of Empire’s instructional reforms on teaching strategies, students’ classroom experiences, and academic achievement. But there are data to support the positive feelings voiced by teachers and parents interviewed in the study. Parent and community involvement in the school was at an all-time high; the sale of school jackets and tee shirts increased dramatically as students were no longer embarrassed to be associated with the school name; student absenteeism and suspensions were reduced.
Context Edgemont Junior High School serves nearly 1,000 students, grades 7-9, in a small city that is the hub of a large agricultural and cattle-ranching area. Both the students and faculty are predominantly white. The principal has been at the school for 20 years. Under pressure from the district, he has been unsuccessfully trying to guide his staff toward a transition to middle school. Over the past three years, the school has become involved in a statewide Effective Schools network, begun to participate in a state-initiated restructuring program, undertaken plans to move to a middle school model, and started to implement a series of district-developed curricula that follow the Outcome-Based Education (OBE) model. Individually, each of these reforms has led to some promising changes; in combination, they seem to have swamped the staff in a blizzard of ideas.

Outcome-Based Education The adoption of the Outcome-Based Education philosophy is a district-mandated decision. The idea is to change what is taught to match what the district expects students to know, and then to ensure that students reach a mastery level in those skills. This school year, the district has implemented new curricula in mathematics, spelling, and physical education. Other new curricula will be instituted in subsequent years. An important by-product of OBE has been a greater degree of coordination across grade levels and subject areas. The middle school switch is forcing the staff to rethink instructional delivery in anticipation of teaming next year. The principal feels that the staff are lagging behind in developing challenging and interesting tasks and in devising alternative assessment tools for their classes. To date, the school has achievement data only from standardized test information.

Empire's most dramatic changes were in the organization of the school governance. The administrative pyramid was "flattened" by creating a management team. The new role of administrators was reflected by their designations as "coordinators" and their temporary status on one-year contracts. All building administrators knew their jobs were on the line. At Empire, leadership was diffused among a young interim principal and a couple of teacher-leaders. The elimination of administrative positions and allocation of the funds to team planning by teachers further underscored the trend toward lean management and increased support for teachers.

Too Much, Too Quickly: Attempts to Change Edgemont Junior High Edgemont Junior High School is an example of a less successful reform effort that began with adoption of the Effective Schools model. Here, a variety of district- and principal-initiated reforms overwhelmed teaching staff, and there was only minimal evidence that the changes were improving the school.

From the interviews and observations, it was clear that Edgemont teachers were overwhelmed by the volume of change they were experiencing. This feeling was especially acute in connection with the middle school transition, which had a very short timeline. The district
Top Down Teachers at Edgemont have had little input into the school’s reform programs. The involvement with the Effective Schools process constituted the first reform effort. Beginning in 1989, the school became involved in a state-sponsored program as a result of the principal’s desire to formalize a planning structure in the school. Committees were formed and a survey was administered, resulting in modest changes—each teacher committed to calling two students’ parents per week to improve home-school communication. Neither did the teachers initiate the move to the middle school model; it was a district decision to relieve overcrowding. Similarly, Outcome-Based Education was initiated by the district.

The Effective Schools teams did give the teachers some voice in the school’s agenda. The Edgemont teachers have recognized the rushed timeline for the middle school transition and were successful in convincing the principal and the district to consider a more thoughtful pace.

Development by Fiat State restructuring funds have provided Edgemont staff with opportunities to seek new ideas and information. Teachers visited other middle schools to see how they restructured their curriculum. A related priority, Outcome-Based Education, included staff development that resulted in changes in math instruction, spelling, and physical education. In general, however, staff seem to feel overwhelmed with the pace and number of changes expected of them.

Slow Going: The Beginning of Change in Petersburgh Elementary Our last portrait is of a school swept rather reluctantly into state and district reform initiatives. The principal had been slow to relinquish control, leaving teachers frustrated in their attempts to move scarce resources to improve classroom conditions.

The experience at Petersburgh Elementary illustrates that attempts to restructure schools do not always lead to promising organizational changes. The school did not transform as a result of its early efforts. Communication had

was exerting pressure for speedy adoption of all reforms and expected the principal to make it happen. The principal had not been successful in protecting his staff from outside demands or in regulating the pace of the many meetings and reports required as part of the reforms. With reluctant teachers on one side and an insistent district administration on the other, the fragile authority of the principal started to erode. Amidst the turmoil, only minor changes could be seen in classroom activities.
Located in a relatively poor farming community, Petersburgh serves fewer than 200 students, all white, with a staff of 8 teachers and a principal. Traditionally, the school has not been one of the most attractive to parents, and communication between the veteran principal of 20 years and the teachers has been strained.

Over the past year, the school has become involved in a state-initiated reform program that provides for school-based decision making, calls for curricular reforms, and imposes new assessment mechanisms. In addition, at the district's request, the school joined a network of Effective Schools programs that offers technical assistance and training.

The Effective Schools Programs have had little impact on classroom practice. Two instructionally related changes were implemented: an incentives program for reading and a new homework policy. As a result of the new state-initiated reform program, a few curricular changes have started. Teachers are beginning to use writing portfolios and to teach more writing. Teachers in grades 1-3 are using a new manipulatives-based, process-thinking-oriented text. Upper-grade teachers will be trained next year. Despite changes in the state law going into effect for the primary grades, the school is not mixing ages. One period per day, some students switch teachers.

The first major change resulting from the school’s participation in Effective Schools was the institution of regular meetings and an increase of regular communication between teachers and the principal. Second, the school has initiated a formal needs assessment process, including parent and teacher surveys. The surveys uncovered three problems: physical problems with the building, poor communication with parents, and little teacher input into school policy. As a consequence, a bus lane was installed, a new teacher lounge built, and the school was cleaned up. Communications were improved by installing a suggestion box whose contents were read at school council meetings. Also, progress reports were prepared for parents. When it came to fundamental changes, however, the principal guarded his turf. Teachers wanted instructional aides, but the principal vetoed their request, indicating that personnel decisions were only within the purview of the principal and the superintendent.

The Effective Schools process with its ready-made structure and surveys does provide mechanisms for teachers to pinpoint their concerns and have them heard. At the same time, the teachers do not have access to outside resources to address larger problems.
improved, staff were thinking about ways of improving the school, and some cosmetic improvements were made. Yet there had been no organizational changes that really affected the balance of power in the school. Teaching and learning in the classrooms had changed very little.

There had been no organizational changes that really affected the balance of power in the school. Teaching and learning in the classrooms had changed very little.

Summary

Taken together, the portraits illustrate the range and complexity of reforms under way in the nation's schools. Improving schools can involve changes in all—or few—aspects of daily life: how staff interact, authority relations, the organization of work and learning, and the content of learning. The portraits also demonstrate the limitations of labels for various school-based reform efforts. Some reforms begin with adherence to the Effective Schools model and evolve in new directions; some begin as classroom-level reforms that blossom into schoolwide changes; others begin with bold plans to restructure the school, only to result in superficial changes. The portraits suggest, then, that there are no "off-the-shelf" models for schools to follow, but that the key elements presented in Section II do seem to contribute to successful school-based reform efforts.

There are no "off-the-shelf" models for schools to follow.
The course of educational change necessarily is directed by the teachers and administrators who work within the walls of the school building. Successful reform turns on the ability of school staff to develop sufficient capacity and willingness to alter the process of teaching and learning and their traditional patterns of authority and interaction. Yet schools do not exist in a vacuum; they must negotiate their efforts with the outside world—districts, states, and local communities. To garner the support needed to advance their reform efforts, schools must make use of resources outside the school. The study found that the district (and, less directly, the state) can play a key role in helping schools overcome the barriers to change and take advantage of external support.

This section shares lessons on what district central staff can do to support school-based reform. The section describes how districts can effectively provide professional development opportunities, offer schools sufficient authority and flexibility, build and manage community support, and garner needed resources.
Providing Professional Development Opportunities

A central finding of our national study is that successful school-based reform requires all (or most) school staff to improve their daily work and to assume tasks for which most are not at all prepared. For example, teachers who had been trained for and had succeeded in teaching a self-contained classroom of 25 5-year-old students using a standard district curriculum were being asked to meet with a team of other teachers to develop a new curriculum for team-taught, multiage primary classrooms. It is a rare teacher—and a rarer school staff—that has the expertise to take on such challenges without some outside assistance.

Regardless of the district’s overall approach to supporting reform, the central office can be one important provider, convener, or facilitator of the professional development opportunities teachers need to meet the challenges of school improvement. The district can play various roles in providing professional development support; it need not be the only trainer or the one that defines what is to be done. Some alternative patterns of professional development are summarized and illustrated below, arranged in rough order from the greatest to the least control by the district over the staff development offered.

- **The professional development center.**
  One district exemplified this approach to professional development assistance by creating a “professional development academy” with the aid of outside foundation funding.
- **Expert trainer.** A less ambitious variation on the theme of the professional development center occurred in instances where the district staff development director or others at the central office possessed expertise in areas related to the school-based reform effort.
- **Definer of a menu of professional development options.** The district might not possess the expertise required to provide staff development directly, but instead might define a series of acceptable options for staff development, as found in several cases in the study.
- **Professional development broker.** Rather than set out a menu of possibilities, the district could act as an intermediary between schools and outside experts or other sources, such as professional societies or universities.
- **Source of professional development resources.** The district is also one source of funds to support staff development activities devised by the school, and it may simply provide the wherewithal for school people to arrange for their own professional development.

It is a rare teacher—and a rarer school staff—that has the expertise to take on such challenges without some outside assistance.
Whatever their role in staff development, districts are most effective when their efforts enable school people to acquire skills, knowledge, and ideas that are appropriate to the school-based reforms in which they are engaged. The lack of fit between district-provided in-service training and what school people want has often been documented, and the potential for such an outcome is clearly present as the district becomes more heavily involved in staff development of various kinds.

Other forms of technical assistance (e.g., with grant writing, troubleshooting, materials, and technology) are also important, but arguably less central than direct professional development of teaching staffs. Such technical assistance can involve fairly mundane operational details of reform—e.g., determining whether waivers are required for a change in the school day schedule and helping the school process the waiver request. On the other hand, school people often need help addressing more fundamental matters, such as determining the most appropriate mode of assessing major changes in practice. Where it possesses the expertise—or knows how to get access to it—the district can be very helpful with these kinds of challenges.

### Setting and Waiving Requirements

Successful school-based reform calls for a balance between top-down and bottom-up control of the change process. Often, the reform agenda is advanced when districts provide schools with greater flexibility and authority over key decisions—and subsequently, when principals share authority with teachers. Yet district requirements (some of which may originate from the state or federal level) can also encourage school improvement by stimulating school staff to consider changes and by guiding the direction of those changes.

Often, the reform agenda is advanced when districts provide schools with greater flexibility and authority over key decisions—and subsequently, when principals share authority with teachers.

Finding the appropriate balance between district and school control is a difficult and evolving process. The study identified two general guidelines for policy makers to consider in deciding when top-down policies are called for. First, it is important to tie requirements clearly and directly to learning goals. Examples include districts that specify the content that students need to be exposed to or to describe the competencies students should possess in each subject area, instead of specifying the number of minutes of instruction that students must receive in a certain content area each and every day.

Second, it is important that district requirements or mandates respect the variability that exists across schools. The study found that many schools had to struggle with district mandates that specified the exact makeup of a school council. A better policy might be to require that schools have a formal method of including teachers, staff, and community members in key decisions and then give schools flexibility on how to do so.
Staff in many of the schools visited in the study felt that they profited from being freed from normal school scheduling regulations, cumbersome rules about the use of school specialists, or requirements to use only district-approved textbook series. In other sites, especially in those where the vision or reform originated at the district level, requirements worked to catalyze improvement efforts by requiring detailed long-range improvement plans, a new curricular emphasis, or an expanded and more helpful form of instructional supervision.

The loosening of regulations—especially through the use of waivers on a case-by-case basis—does not ensure that the district provides a flexible environment for school-based reform, however. The process of considering and granting waivers can be cumbersome and, from the schools’ point of view, is often a mixed blessing. In one large urban district in the study, district respondents reported spending inordinate amounts of energy researching and processing waiver requests from school staff in a network of state-funded schools engaged in school improvement. In many instances, it was not easy to determine exactly what requirements applied and where they originated. As often as not, there was no formal requirement that pertained to a particular situation, only the perception by mid-level managers in the central office that something was required.

Managing Forces and Conditions outside the School’s Control

By formal responsibility and position, the district stands between the school and various potentially powerful groups outside the school—representing other schools and educators in the district, advocating the interests of certain community segments, or making policy at the regional or state level. In particular, the local teachers’ union, advocacy groups, and business interests in the local community, and the state education agency are likely to exert various pressures, both positive and negative, on school-based reform efforts. Whether they want to or not, district officials are forced to mediate between school-based reformers and these different groups. The way in which the district carries out its mediating role has a great deal to do with the ability of school-based reform efforts to thrive and be sustained.

Managing external forces and conditions includes a variety of roles: buffering school people from the outside world; interpreting and adapting the demands of the outside to make them less burdensome for the schools; and cultivating outside groups for the advantage of schools. Below are discussed issues related to the dynamics of working with the teachers’ union, community, and state government.

Engaging the Teachers’ Union—

Especially in larger districts, teachers’ unions play a vital role in school reform. In some sites, teachers’ unions are at the forefront of reform efforts by encouraging teacher leadership and professionalism. In other sites, unions work with district administrators to advance the reform agenda. In some cases, however, the union is seen by schools as
The way in which the district carries out its mediating role has a great deal to do with the ability of school-based reform efforts to thrive and be sustained.

representing a series of constraints, chiefly in the areas of hiring, extra duties and assignments, and other matters pertaining to working conditions in the schools. In particular, the seniority-based hiring systems in many districts' contracts reportedly made it extremely difficult for schools to recruit the kinds of teachers who are sympathetic to a particular reform effort.

Because the union represents teachers on a districtwide basis, individual schools are inherently at a disadvantage in eliciting union support or cooperation for a particular reform effort, unless school people happen to have close personal ties to the union (as was the case in several schools visited during the study). Because of this disadvantage, the district central office can play a pivotal role.

Successful mediation in this role requires that districts and unions progress beyond an adversarial labor vs. management model of collective bargaining to one emphasizing collective professional responsibility for educational improvement. For example, some districts in the study renegotiated contracts to give schools more flexibility regarding aspects of the union contract while affording teachers more involvement in school-based decisions. In this way, flexibility is exchanged for authority, and administrators and teachers become clearer partners in improving schools.

District leadership can be proactive in engaging union leaders in the substance and philosophy of a given reform effort. This process was most clearly illustrated in South Mission Unified School District, in which the superintendent took the union leader, along with district administrators, board members, and school administrators, to four-day workshops on the Effective Schools process. His intention in doing so was to expose the union head to the philosophy that he hoped would guide all reform efforts in the district.

Overall, school-based reform poses a dilemma for active teacher unions and for district and school administrators. The emphasis of reforms on increased teacher professionalism and greater teacher authority at the school level fulfills long-held goals of the unions while threatening the traditional authority of administrators. Concurrently, the move toward greater school-based authority and autonomy threatens traditional union support for uniform work rules and hiring criteria while giving administrators new flexibility. In the end, the success of school reform requires that districts and unions find an amicable middle ground that protects their interests while promoting the reform agenda.
One effective strategy (at both the district and school levels) to deal with communities' concerns is to bring the community and the school together as much as possible.

Cultivating the Community—Like teacher unions, communities can be both allies and opponents of school-based reform efforts. Unlike unions, communities are rarely well organized or able to articulate collective and concrete visions of what schools should look like. The national study found many instances in which the community exerted a general pressure for better test scores, lower dropout rates, or more attention to this or that group, but it was unusual for a community to be a major motivating force directing schools to adopt schoolwide comprehensive reform efforts of the sort that are the focus of this guide.

Districts (and schools) often have to "sell" or explain the idea of the reform approach to the community. Current reforms, especially in the areas of curriculum and instruction, represent a stark departure from the experiences of most adults in the community. Block scheduling and field-based learning experiences are new concepts for most parents. Teacher and parent decision-making teams require a new kind of participation on the part of adults. The use of more integrated approaches to compensatory and special education programs often seems like a threat to parents who have fought hard to establish special services for low-achieving or special-need students.

Therefore, district staff should undertake active campaigns to enlist the support of key constituencies within the community. The study found that one effective strategy (at both the district and school levels) to deal with communities' concerns is to bring the community and the school together as much as possible. Thus, parents in one rural district came to support a new hands-on curriculum as the district made arrangements for students to visit local farms and small factories to learn directly from local residents.

Interpreting State Requirements and Mandates—Forces at the state level—especially those emanating from the state education agency, the governor's office, the legislature, state professional associations, or combinations of these groups—are an ever-present feature of the reform landscape in most districts. Inescapably, the district acts as intermediary by either ignoring or interpreting reform ideas, resources, and requirements from the state level. Key roles the district can play here include:

- translating and making sense of the array of state requirements for schools so that school staff are not required to read and understand for themselves each proclamation from the state capitol
- communicating the concerns of school staff regarding state requirements to the appropriate state-level audiences
- brokering state waivers and exceptions, thereby providing schools with a critical form of support for the reform efforts in question
Key roles the district can play include: translating and making sense of the array of state requirements, communicating the concerns of school staff to the appropriate state-level audiences and brokering state waivers and exceptions.

The degree to which and the way in which districts can manage state forces impinging on school reform efforts depend a great deal on the political culture of the state and the tradition establishing the degree to which the districts must pay heed to the state. For example, the Kentucky state reform bill mandates deep restructuring of educational programs in all schools. This situation contrasts sharply with those in other states that provide for more local control over educational matters, such as Washington’s Schools for the 21st Century, a 5-year demonstration program offering $250,000 and greater flexibility under state requirements to a selected group of 30 schools and school districts across the state.

**Garnering Resources**

School-based reform efforts often call for additional resources, for greater discretion by school people over the use of resources, or for both. Accordingly, the financial health of the district, the availability of discretionary resources at the district level, and the district’s policies regarding school-level budgeting are intimately involved in the story of reform.

The district can play various roles in this regard. The study encountered districts contributing resources to school-based reform efforts in a variety of ways, among them:

- creating special programs targeted to school-wide improvement efforts of various kinds
- helping schools secure external grant funding from the state, foundations, or private-sector firms
- reallocating resources in the overall district budget to provide greater assistance to school-level reform efforts
- transferring budgetary authority to schools to make it easier for them to concentrate resources on key reform goals
Districts are important players in school-based reform. One way or another, schools depend on their districts for many things: goodwill, tolerance and or permission for experimentation, resources, protection from hostile external forces, and the creation of supportive organizational structures, to name only some of what districts can provide.

There is clearly no one “best” role for districts to play. Rather, the optimum form of district support depends on the fit between district- and school-level visions of reform and on the resolution of the inevitable authority issues that are involved. On balance, the odds of sustaining promising school-based reforms over the long term are probably better in districts that assume an active role in support of these reforms, creating a clear vision of change and providing needed resources.

But if there is no “best” way to support reform at the school level, there clearly are ways for districts to stand in its way, even when they intend to help. District policies, actions, and conditions can seriously impede school-level initiatives. In particular, overly strict interpretation of state and federal compliance requirements, insistence on uniformity across schools, unwillingness to grant schools greater decision-making authority, and inflexibility about district procedural requirements are among the ways that central office officials thwart the designs of school-level reformers.

The findings from the national study suggest a number of concrete steps that districts can take to support reform.

(1) The district can serve as the initial stimulus for school-based reform. Although this may seem inconsistent with the concept of school-based reform, many—perhaps a majority of—schools that are receptive or susceptible to reform do not spontaneously imagine new and better missions, organizations, curricula, and approaches to instruction. Something must catalyze the reform process, and in many cases the initial catalyst came from the district level.

(2) The district can assemble a critical mass of resources (including funds, knowledge, materials, and specialized forms of assistance) that school-based reformers need and are hard pressed to come up with by themselves. School-based reform is hard, labor-intensive work, and the study found that school people engaged in this process appreciated the resources that often came their way from the central office. Moreover, professional development sponsored by the central office is often a source of key reform ideas, even leadership, for the schools.

(3) The district offers a broader professional forum for reform ideas, in which the staff of one school might interact on an intense and regular basis with other school staffs in developing their thinking.

However, the analyses suggest that, to play a consequential role, the district often needs to change the way it does business. In this sense, the ultimate conclusion is that the district is important to the success of school-based reform in proportion to its willingness to reform itself. Otherwise, wittingly or unwittingly, it may indeed undermine what school-level people do to improve schooling.
REFERENCES


I. RESEARCH RESOURCES

RESEARCH ON SCHOOL-BASED REFORM

Noting a limited amount of empirical research on school-based management, the author describes the main purposes, elements, and shortcomings of school-based management in practice. David draws on research from school improvement to corporate innovation to identify the factors necessary for school-based management to succeed as a reform strategy. In addition to increased authority and flexibility at the school site, significant school improvement requires strong district and site leadership that empowers others and the time and support for school staff to acquire new knowledge and skills and put them to use.

Edmonds' work arose as a counter to research that absolved schools of responsibility for student achievement. This article called for equity, a commitment to bring the skills of poor children up to mastery of basic skills. Edmonds framed these concerns as political—addressing the equitable distribution of goods within a society. He believes in the educability of all children, with the school's treatment of children as a critical factor in students' academic success.

Factors within the purview of schools that could lead to academic success for poor children were enumerated:

1. strong administrative leadership
2. a climate of expectation that children would succeed
3. orderly school atmosphere
4. primary emphasis on student acquisition of basic skills
5. school energy and resources focused on basic skills
6. frequent monitoring of pupil progress


The author takes the position that the primary goal of U.S. public schools is to ensure an educated citizenry in a democracy. As a result of losing sight of this goal, schools have become fragmented, without a clearly defined purpose. Glickinan states that recapturing this goal will revitalize or renew educators and students. In Part One, he lays out a framework for supporting school renewal, which includes schoolwide participation in the development of a covenant or principles for learning, a charter or rules for governance and participation in that governance, and a critical-study process in which data are collected to aid in setting learning priorities. Part Two focuses on the administrative tasks that a school must accomplish: curriculum development, staff development, coaching work, instructional program development, student assessment, and instructional budget management.


This monograph is a comprehensive review of school effectiveness by two prominent researchers in the field. The authors discuss existing research on correlates of effectiveness, processes for creating effective schools, achievement criteria for determining the success of these efforts, and contextual issues.

The analysis points to the limitations of correlate-oriented prescriptions for improving schools. Instead, the authors place this responsibility with teachers and administrators. Successful efforts will result from the ability of these groups to overcome legal obstacles and to face other profound dilemmas underlying the school reform process. Levine and Lezotte also recommend a dual research emphasis on effective teaching (instructional features) and effective schools (organizational features).


This book was written “to capture what we have learned to date about restructuring schools” and is a good source for obtaining an overview of the most current ideas in educational reform. The author lays out the various ways in which current restructuring reforms challenge the traditional methods of schooling. It contains an extensive reference list of books, articles, and documents on restructuring in particular and educational reform in general.

The authors critically review early school effectiveness literature. They focus on school-level factors, but also keep an eye on the broader context of education (e.g., the district "above" and the classroom "below"). They examine both content—identifiable characteristics of (effective) schools—and processes—the ways schools actually operate and change. The authors criticize the many reviews and studies that don't consider the process of becoming more effective. In so doing, these studies convey a tacit assumption that all findings are generalizable to other settings.

Purkey and Smith examine three main types of study: outlier studies, case studies, and program evaluation studies. They include specific critiques of each type's methods, sample size, and data analysis and interpretation techniques. They praise the intuitive logic and common sense underlying most of the existing research. The limitations of the overall literature should not prevent attempts to combine effectiveness factors with each other or with other research (e.g., on classrooms or on school culture) to learn how to make schools more effective.

Eschewing closed lists of effectiveness attributes, the authors discuss clusters of organizational structure variables and of process variables. Given their interest in the process of school effectiveness, they also treat change processes, teacher "ownership" of them, and the role of administrative leadership.


Current reforms and recommendations made by commissions are doomed to failure as long as they avoid confronting existing power relationships that inform and control persons in the educational system. Reformers must also recognize that the education of children is influenced not only by what occurs within a school or classroom but by decisions made within the larger society and its beliefs and needs. While educators share responsibility for schooling, they do not own this process.


Anyone interested in the history of reform and the place of the current movement for restructuring will find this article useful. Tyack notes that the term "restructuring" is vague and all-encompassing and cautions that policy discourse alone will produce little change in schools. In the past century, reformers made calls for changes that are similar to calls for restructuring today: greater decentralization in governance, increased teacher autonomy, collegial decision-making, increased attention to the development of students' abilities to think critically, and more parental involvement. However, long-term historical trends have moved in opposite directions with increased centralization, movement toward large high schools, increased differentiation of the curriculum, the growth of principals and non-teaching staff. The persistence of historical trends despite vigorous attempts to fundamentally alter the character of schools should cause today's reformers to take note and develop different strategies in order to truly make an impact on schools rather than to repeat mistakes of the past.
CASE STUDIES OF SUCCESSFUL REFORM


The author, who is also the founding principal, gives a brief history of Central Park East, which is located in East Harlem in New York City's District 4. She and others were given an opportunity in 1974 to organize a school based on more progressive ideas. Central Park East and the network of four schools that grew out of it focus on creating a democratic community, giving teachers greater autonomy in the running of a school, giving parents a voice in what happens to their children in schools, and promoting a family orientation. In 1985, these ideas were extended to a high school setting—Central Park East Secondary School. Meier and others are learning how to mesh an already successful "formula" with such high school issues as the New York State Regents Examination, course requirements, college pressures, and adolescents' needs.


This report documents some of the changes taking place in states that are restructuring in order to improve learning for all students. State and district initiatives are examined in four areas: (1) school governance; (2) the nature and organization of curriculum and instruction; (3) new professional roles for educators; and (4) accountability. The final section provides descriptions of some nationwide projects to restructure schools such as the Coalition of Essential Schools, the National Board for Professional Teaching Standards, and the National Network for Educational Renewal.


This report presents case studies of successful school improvement in 12 districts across the country. It shows how Effective Schools reform can be adapted to various types of school contexts. The practitioners involved each wrote their case study, describing the process of implementation in their local settings. Lezotte and Taylor then draw some common lessons from all of the cases.


This article favors the creation of personalized, caring school environments as a means to encourage student commitment and engagement in learning. It reports findings from a study of three schools with such environments—an affluent, independent high school, an inner-city performing arts magnet school, and an electronics academy (vocational high school). Components fostering and sustaining personalization are discussed: student and teacher choice to be at the school, relatively small scale, school-level communication, collective problem solving, broader roles and responsibilities for teachers, teacher flexibility in instructional style, strategies that support and revitalize teachers. The authors conclude that personalization is a matter of conscious organizational design rather than of individual teachers' values and practices.

This monograph is a pioneering study of the processes at work in effective inner-city schools. By systematically analyzing student achievement in reading and examining other features of third-grade classrooms in the sample, Weber posited eight characteristics that distinguished these schools from less successful schools (both sets served inner-city populations). These characteristics included additional reading personnel, use of phonics, and individualization, among others. He also determined factors that were not associated with high reading achievement: small class size, achievement grouping, and physical facilities.

The study lacked specific observations of ineffective schools, including one of the sample schools whose effectiveness had deteriorated over time. However, it stimulated much further research by leading the way in analyzing school process measures.

II. HOW-TO RESOURCES

GUIDELINES FOR SCHOOL-LEVEL REFORM
Elementary Level or General


This report was generated by “people who work inside the schools and the parents of the students who study in those schools.” The researchers found that national studies have failed to address directly issues of major concern for those working in the classrooms. They conducted their own study to articulate the problems of schooling by designing and using research processes that allowed members of the school community to name their experiences inside schools. Their position is that “the heretofore identified problems of schooling (lowered achievement, high dropout rates and problems in the teaching profession) are rather consequences of much deeper and more fundamental problems.” The report focuses on issues of human relationships, race, culture and class, values, teaching and learning, safety, physical environment, and despair, hope, and the process of change as the major areas to be addressed in school reform.


Lezotte finds a “kinship” with W. Edward Deming’s total quality management (TQM) and the basic operational tenets of the Effective Schools movement. Comparisons between the two are drawn in Part I. In Parts II and III, Lezotte lays out plans for developing and implementing a “blueprint” for the “total quality effective school.”


This book documents the success that teachers across the country have had in addressing a wide variety of problems related to student achievement. Principals, teachers, and other school staff members have provided in this text short descriptions of their school demographics, the problem(s) faced, and the new practice(s) implemented, with results and comments. A contact person is listed for each new practice for those wanting to obtain additional information.


Baltimore's school board posed a question to researchers at The Center for Research on Elementary and Middle Schools (CREMS) at Johns Hopkins: "Forget about cost, about regulations, about the way we've always done things.... What would it take to see that every child in an inner-city Baltimore elementary school will succeed?" (p. 15). CREMS staff designed a program, "Success for All," with two underlying principles: (1) prevention, and (2) immediate, intensive intervention. The bulk of the article describes the program: (1) intensive, one-on-one reading tutoring; (2) ability grouping in reading; (3) individual academic plans and reading assessments; (4) half-day preschool and full-day kindergarten; (5) family support team; (6) on-site program facilitator; (7) special education; and (8) an advisory committee. Year-end evaluation showed that students in the program scored significantly higher on achievement tests than a control group. This superior performance held across grades one through three. Assessment and program revisions are still under way.


The Center presents a coordinated set of readings that elaborate on the process of implementing successful practice based on findings from Effective Schools research. Each reading is prefaced by a section that lists the rationale for its inclusion in the handbook and the goals and objectives to be met through reading the article. An extensive reference list follows each article. Topics include an overview of the history of U.S. schooling and the need for change, the research base of Effective Schools reform, leadership and empowerment, the creation and communication of a school mission, the role of the district, and building-level implementation.


Stedman criticizes the Effective Schools formula because the schools touted as effective perform below grade level and because other studies have challenged the six-factor formula. He proposes instead a new synthesis based on case studies of schools that have achieved grade-level success with low-income students. He puts forth his own nine-category formula of effective practices: ethnic and racial pluralism, parent participation, school governance shared by teachers and parents, academically rich programs, skilled use and training of teachers, personal attention to students, student responsibility for school affairs, an accepting and supportive environment, and teaching aimed at preventing academic problems. He closes his article with a warning that schools cannot serve as the sole instrument for social policy, but are only a part of a broader political agenda for revitalizing urban areas.
Secondary Level


The authors note the problem of generalizing Effective Schools results obtained in elementary settings to secondary schools. The reliance of the research on student achievement creates problems within the high school context, which has several equally important goals—social, personal, vocational—besides academic. Salient measures for secondary schools include good discipline, lack of vandalism, and good attendance. Implementation of Effective Schools programs in high schools encounters difficulty because of decreased collaboration and increased complexity and resistance, compared with elementary schools. Secondary school teachers also find their students, who pursue their own agendas, much less malleable.

Farrar et al. propose an Effective Schools design for secondary schools, focusing on four areas: high school organization, faculty involvement, students' reactions, and parental/community involvement. They raise the issues of fragmentation and departmental conflict at the close of the article.


This often-cited article argues that Effective Schools constructs developed in elementary school contexts need to be modified when applied to secondary schools: (1) “climate”—because less agreement about teachers' role exists at the secondary level than at the elementary level, and (2) “instructional leadership,” which may be more facilitative at the secondary level. Departmentalized arrangements, teachers as subject-matter specialists, and large staff sizes all militate against the type of leadership deemed effective at the elementary school level.

The authors compare staff relations in an elementary school to those of a work group, while relations at the secondary level approach those of members of a complex organization. Likewise, elementary school principals perform like head coaches of sports teams and secondary principals like chief executive officers of corporations.


The authors explore “organizational arrangements” for improving student performance in secondary schools. They are concerned about restructuring discussions that lack concrete examples, so they use specific cases of reorganized secondary schools to establish their points. They summarize the experience of several schools from around the country that are succeeding.

Levine and Eubanks conclude with an enumeration of the different kinds of changes that schools must be prepared to make to improve radically: implement strong and consistent discipline policies and alternative institutions for highly disruptive students, “leveling” of different ability groups to ensure that low-performing students achieve necessary learning skills (this contrasts with both homogeneous grouping and tracking), and insisting on and supporting higher levels of performance for students.

The core of the book is a set of five case studies of urban high schools undergoing improvement efforts in the mid-1980s. In addition, the authors present the main results of their survey of principals of 207 urban high schools attempting major reforms based on the Effective Schools literature. The primary finding from the survey is that few principals cite aspects of teaching and learning as central to their efforts; climate, discipline, and high expectations top the list of factors emphasized. In terms of effects, Effective Schools programs have greater impact on the cosmetic and administrative side of schools than on student achievement.

Following the case studies of the five high schools—two deemed successful, two struggling, and one unsuccessful—the authors extract cross-cutting themes that suggest what is needed to manage successful change efforts in urban high schools. They conclude that five issues are key: the history of the school and its current relationship to the district (change is facilitated when the district is less bureaucratic and yields latitude to the school); "evolutionary" planning that involves key leaders and quickly connects planning to action; building and creating consensus on a vision and promoting leadership by teachers; obtaining and reallocating resources, especially time and training; and the presence of coping skills for managing day-to-day problems of change efforts.


This book addresses the setting of the high school as distinct from the context of the elementary school. It calls for a rethinking of the meaning of "context" by taking a look at the multifaceted influences or "embedded contexts" that have effects on teachers' work. The authors build the case for constructing an understanding of teachers' work from teachers' own perspectives.

There are three parts in this book. Part I focuses on sociocultural contexts—societal, professional, community and social class cultures. Part II looks at the organizational and policy contexts within schools. This includes a chapter on workplace reforms and a chapter on the significance of high school departments. Part III focuses on three "levers" for improving secondary schooling: professional development, school improvement, and curriculum reform.


This source provides a good overview of research related not only to secondary schools but to educational reform in general. Books and journal articles covering a wide range of topics are included, such as school choice, class size, restructuring, school climate, cooperative learning, increased graduation requirements, staff development, and testing and evaluation procedures. One section of this bibliography presents a list of references related to projects conducted at the National Center. These projects include the Adolescence Project, the At-Risk Student Project, the Higher Order Thinking Project, and the Quality of Teachers' Work Lives Project. All references are annotated.
This is an empirical study of 12 inner-city secondary schools in London. The authors sought the answers to two questions: Why do schools differ with respect to student behavior and attainment? How do schools influence students' progress? They employed four assessment measures in their evaluation of schools: (1) intake measures to establish baseline characteristics of student academic ability, parental occupation, and teacher-described student behavioral characteristics; (2) school process measures developed within the research group because none existed—staff interviews, pupil questionnaires, and fieldworker observations; (3) outcome measures of what schools saw as their main tasks, namely, behavior, attendance, examination success, employment, delinquency; and (4) ecological measures that included classification of geographic areas by social status, balance of intake (meaning the concentrations of students in terms of their academic ability, parental occupation, behavior, and ethnic background), interaction effects within schools, and parental choice of school.

The authors found a greater incidence of low attendance and early school leaving among low-ability or low-SES students, that differences between schools remained stable over time, and that, even after controlling for external factors, significant school effects remained. The authors also found crucial ecological differences even within a single local authority and between schools serving in an inner-city area. The two key contributions of this research: (1) intake characteristics of students did not fully account for persisting differences among schools; and (2) the school's functioning as a social organization accounted for essential differences between schools.
Reform from the District Perspective

The authors report findings from a study of working conditions in urban schools in five districts. The study team observed and interviewed school staff in 31 schools as well as district staff, union officials, and board members. Overall, they found that most urban schools are difficult and demoralizing workplaces, which negatively affect teaching and learning.

Schools providing the best working conditions, defined by teachers' assessments, had a constellation of conditions that together resulted in high morale and effort of teachers: strong, supportive principal leadership; good physical working conditions; high levels of collegiality; high levels of teacher influence on school decisions; and high levels of teacher control over curriculum and instruction. The absence of one or more of these conditions was associated with considerably lower ratings.


This document reports the results of case studies of four districts that have acted on restructuring agendas: Jefferson County Public Schools (Louisville, KY), Dade County Public Schools (Miami, FL), Poway Unified School District (CA), and New Orleans Public Schools. The report presents information about five other districts that are also restructuring but that were not included as part of the formal case study sample: the ABC Unified School District (Cerritos, CA); Cincinnati, OH, Public Schools; District 4, East Harlem (New York City); Hammond, IN, Public Schools; and Rochester, NY, Public Schools. Insights from the four case study sites and the other five inform three summary themes expressed in each of the districts. First, the goal of restructuring is comprehensive change guided by a belief that schools can be stimulating workplaces and learning environments. Second, school staff need the skills, authority, and time to assume new roles and responsibilities. Third, restructuring requires new coalitions of support and new conceptions of accountability.


The premise put forth in this booklet contends that all cities have resources/assets that can be mobilized to improve urban education: an educated middle class (black, Hispanic, white, etc.), well-managed businesses, financial institutions, universities, local foundations, political and religious leaders. However, a failing educational system can turn around only if the entire community unites on its behalf.

Six big-city school systems showing promise of improvement—San Diego, Memphis, Cincinnati, Miami, Atlanta, and Pittsburgh—were studied for factors that (1) contributed to their success, and (2) were reproducible at other sites wishing to improve. Case studies identified four major actors in the community and strategies for improvement. Successful cities reached out to involve the larger community, made information about student performance and school resources broadly available, created community-wide agreement and understanding about educational goals, and made major changes in the dynamics of school administration.

This report documents the committee's investigation of nine districts and one county education office that are pursuing Effective Schools projects. Questionnaires with seven open-ended items were used to gather data from sites whose activities conformed to the effectiveness correlates of the reauthorized Chapter 2 program (ESEA, P.L. 100-297). Information on goals, implementation, indicators of success, and costs are compiled on districts in Caldwell, ID; Clovis, CA; Joliet, IL; Kansas City, MO; La Joya, TX; Pittsburgh, PA; Prince Georges County, MD; San Diego County, CA; South Harrison, MO; and Spencerport, NY.

THE ROLE OF PRINCIPALS IN SCHOOL REFORM

The authors present a framework for understanding the complex instructional management role of the principal, which, they assert, affects student learning both directly and indirectly. They posit that principals must exercise leadership in two domains to maintain a successful school: instructional organization and climate. Personal characteristics, district influences, and social environment shape and constrain leadership by the principal. They also examine research on instructional organization, including teacher behavior and school- and classroom-level issues, for ways in which behavior of the principal can shape it and vice versa. The authors acknowledge the lack of a precise definition for the ubiquitous variable "school climate." The authors include a brief literature review, along with questions for further research. The end of the article focuses on the dynamics of principals' influence, power, and authority. The authors note that urban elementary school environments most constrain principals, yet have spawned some highly effective ones.


The principal of an inner-city elementary school in Philadelphia shares insights into the role that she and her staff played in transforming a troubled school. This includes a strong emphasis on reaching out to the community through frequent visits to children's homes as well as communicating with other important persons around the school grounds, guarding teachers' classroom teaching time, and understanding the inner workings of teacher unions and the state education lobby. The author, who has spent more than 30 years in the School District of Philadelphia, beginning as an elementary school teacher, comments on the effects of local, state, and federal policies on schools, with particular emphasis on inner-city schools. She ends the book with a discussion about the effects of crack cocaine on the current generation of schoolchildren and recommendations for confronting this problem.

Those interested in principals’ opinions and concerns about restructuring will find this article useful. A small sample of elementary, junior/middle, and high school principals in urban, suburban, and rural areas were interviewed in depth about the potential impact of restructuring reform on teachers, administrators, parents, and students. They also envisioned operating in a restructured school and speculated on how conditions at the school and classroom level might then change. These interviews revealed, among other things, that some of these principals are skeptical about new ways to improve schools, that they tend to interpret any reform as restructuring, and that they have strong concerns about issues of performance accountability in shared-decision-making settings.

**THE ROLE OF TEACHERS IN SCHOOL REFORM**


By “teaching for understanding,” the authors and contributors mean the promotion of students’ critical thinking skills, deeper understanding of subject matter, and an active engagement in learning. Classroom teachers have engaged in teaching for understanding with university researchers and their experiences in collaboration (or “co-laboring”) are jointly reported. The second half of the book focuses on policy considerations, beginning with the perspectives of classroom teachers, emphasizing the need for field-based research on the multiple contexts of teaching. There is also a call to refine concepts and measures to reflect teachers' realities.


Kappa Delta Pi surveyed 3,000 teachers in 100 schools regarding their thoughts about increased involvement in school governance. The survey found: (1) teachers vary in their involvement, depending on their perception of school leadership and the principal; (2) teachers may perceive that the costs of involvement outweigh the benefits; (3) involvement does not necessarily mean influence over school policies. The authors also distinguished two types of decisions: managerial (traditionally made by administrators, such as hiring teachers, allocating budgets, evaluating teachers) and technical (focused on students and instruction). The authors found that teachers prefer involvement in technical decisions.


Johnson argues that education reform cannot be unilaterally imposed on teachers and schools. Teachers must endorse new roles and responsibilities, and be provided time and resources to implement reforms. Schools depend on cooperation and interdependence among staff members, so plans for comprehensive change must be consistent with existing norms. There also must be supportive conditions such as leadership among teachers and administrators, labor-management cooperation, and willingness on the part of administrators to cede some of their authority to teachers.

Little contends that current staff development models cannot help teachers to handle the complex reforms being implemented. The dominant model works when specific skills or practices need to be transferred. However, the current reforms require teachers to be "intellectuals," to grapple with ways to implement ideas and principles into the midst of their day-to-day work. Little identifies five "streams" of reform that present unique challenges to teachers. For instance, subject matter reforms that call for less reliance on traditional textbooks will require teachers to be able to integrate subject content as well as to organize learning experiences for their students. Calls for alternatives to standardized assessment require teachers to obtain the skills and resources to construct, evaluate, and incorporate these new assessments. Little suggests four alternatives to the current training models: (1) teacher collaborations and other networks; (2) subject matter associations; (3) partnerships targeted at specific school reforms; and (4) special institutes and centers.


Drawing from four different studies of teachers in leadership roles, the author examines the conditions for teacher productivity in schools. Little identifies five conditions as particularly likely to advance or erode the prospects for teacher leadership: define leadership tasks that are important, not trivial; invest leadership roles with dignity, not simply power over others; have organizational incentives for collaboration; avoid agreements that protect the separate interests of teachers and administrators; and have district policies that support teacher leadership, especially those on recruitment, selection, placement, and evaluation of principals.


Sykes puzzles over the absence of outstanding teaching in effective schools. The research identified successful schools, yet much of the teaching within such schools remains pedestrian and uninspired. Viewing teaching as the core activity in the school organization, Sykes questions whether effective schools proponents have stated their aims of education too narrowly.

He proposes norms of conduct and standards of practice based on dialogue and close observation of teaching. Such practices and activities would include teachers producing curriculum materials, teachers experimenting with new practices, teachers opening their classrooms to scrutiny to develop understanding among colleagues, residencies for new teachers with experienced teachers, recognition of teacher expertise through mentor teacher programs, and school-university collaborations that could include adjunct status for some master teachers.

Comer describes a 10-year collaborative undertaking between a private university center, a public school system, and a community of teachers and parents. University clinicians had the opportunity to observe, record, and study children in two primary schools in Head Start settings. In exchange, the clinicians provided consultations with teachers regarding individual children, seminar discussions of child development literature, meetings focused on child-rearing patterns, and sessions on child development issues in curriculum planning. With the permission of the parents, children also received appropriate diagnostic and therapeutic care in the schools. Teachers, scholars, and parents were involved in an effort to address a crisis in education that only partly involved academic achievement. The power of the school and its community was drawn upon to emphasize importance of the moral, social, and psychological development that young children need to receive. This lays the groundwork for academic achievement in both the near- and long-term future.

This review makes recommendations similar to Comer's (see Comer, 1988) with its emphasis on parent and community involvement as a critical factor in the improvement of education for black children. It also raises the issue of social distance between the culture of the school and that of black children. Black community organizations—churches, fraternities, social groups—must enter into partnerships with the educational system to provide a full range of social services to children.

Concluding recommendations to educators interested in quality education for black children fall into three categories: (1) central emphasis on human relations and personalization; (2) eliminating barriers to effective teaching and learning, including recruiting more black teachers and developing sensitive curricula; and (3) mobilizing physical and political resources to address issues such as pervasive unemployment, low levels of literacy among black adolescents, and structural isolation of low-income youth from more successful adult figures and jobs.


The author, who is both a parent and a teacher, presents a manual explaining why collaboration between the home and school is difficult to achieve and how barriers to involvement can be overcome. She views teachers, who traditionally have lower status and less community support today, as natural allies with parents, who themselves are increasingly facing difficulties such as divorce, isolation, unemployment, and troubled children. Some of the barriers to effective collaboration include limited time for parent-teacher communication, communicating only during crisis situations (which puts all parties on the defensive), and parent and teacher personal histories that can hinder genuine trust. The author suggests two basic ways to promote parent involvement: increasing the quality of contacts by creating varied opportunities for parent-teacher contacts and increasing the number of parents who interact with the school by making more of an effort to find out what parents want and need from the school as well as involving parents in solving problems and making decisions at the school.

CURRICULUM REFORM

Thematic/Interdisciplinary


One purpose for integrating the curriculum is to help students see that knowledge has connections. The author describes a continuum of curriculum models toward this goal, with 10 models ranging from a fragmented curriculum to a fully networked curriculum. She first explores the fragmented, connected, and nested models in which subjects or disciplines are taught separately. The next four models—sequenced, shared, webbed, threaded, and integrated—incorporate several disciplines into the curriculum. The immersed model describes the point when the learner begins to internalize the subject matter and pursue it on his or her own, creating a natural integration. Finally, the pursuit of learning becomes more external and is shared across networks of learners—the networked model.
This article presents a four-phase action plan for creating and successfully implementing multidisciplinary units. The first phase involves teachers taking a close look across the school at what units and subjects are currently being taught and bringing these units into alignment. During this phase, teachers also begin to look at other work outside of the school that may be sources of ideas for integrating the curriculum. In Phase II, teachers develop a proposal for creating a multidisciplinary unit, most often by upgrading an existing unit. Phase III occurs during the second year of the plan. Here, the interdisciplinarity unit is piloted, implemented, and monitored. Finally, in Phase IV, the new unit is adopted and becomes a permanent part of the school’s curriculum.

Multicultural Education


With a grant from the Carnegie Corporation, the Council of Chief State School Officers (CCSSO) undertook an inquiry into state educational agencies and their role in educating limited English proficient (LEP) children. This report presents their findings and lays out tasks to be accomplished to provide quality education for LEP students. A lot of statistical data is provided. Policies and efforts to meet the needs of LEP students are highlighted, often specified by state. The report concludes that much remains to be done to improve educational services to LEP students, and some recommendations are made in light of these findings.


This text describes a staff development project with 30 teachers that included observations of teachers in their classrooms and interviews over a period of 2 years. The schedule of topics and activities for each year is listed and described in detail, as well as teachers’ experiences. Those wishing to design a multicultural staff development program or to conduct classroom research on multicultural education will glean understanding of some of the issues and dilemmas teachers and others face in the attempt to equalize both access and outcomes for students who are members of oppressed groups.


For those interested in designing a preservice program to enable teachers to be effective with students from different cultures, the description of the Teachers for Alaska (TFA) program in Alaska will be helpful. This approach to multicultural education does more than rely solely on adding one or two courses to the traditional teacher education sequence. Rather, practical experiences are integrated with research and theory. Student teachers learn experientially about students and their families by visiting schools (apart from their practicum), “shadowing” students, engaging in activities that require them to seek assistance from students and the community, and taking roles outside of the classroom. Student teachers also present case studies of their practicum experiences, highlighting the central cultural and contextual issues confronted and lessons learned.

This is a good introductory text as well as a resource book for teachers who want to understand the cultures of their students. This text is written for teachers and provides historical information as well as updated research and beliefs about what is appropriate and inappropriate in various cultures. References for further understanding and activities for use in the classroom are also provided.

Literacy

This is a book for teachers about the writing process and children's development as writers. The author portrays both writing and teaching as "craft processes" that are intertwined in the classroom. Based on research conducted on the composing processes of public school children ages 6 through 10, the book consists of many classroom anecdotes and conversations with teachers and children as they engaged in learning to write and learning to teach writing.


Billed as a "conceptual starter kit," this book presents a curricular framework for classroom reading and writing experiences and how they relate to reasoning and learning. The book opens with a theoretical framework, followed by guidelines on how to start an authoring circle and strategy lessons with full lesson plans. Teachers have written a series of feature articles presenting their insights and experiences in how to develop classroom activities and how to use "kidwatching" guides to assess students. The book is linked to a videotape series with viewing guides based on three Indiana classrooms.


This book describes methods for creating classroom environments and developing activities. Chapters present techniques for student journals, poetry, writing about literature, and expository writing. Also included are chapters on students' tuning their voices and sense of audience, students as editors, publishing, and evaluation and grading.


This book contains chapters on oral language development, family storybook reading, literature for young children, emergent writing, and the assessment of emergent literacy for seven aspects of literacy development. A core experience curriculum is proposed, including inquiry, reading aloud and responding to literature, shared reading and writing, and independent reading and writing.

Science

The document criticizes current courses where there is insufficient time for the introduction of concepts, moving from an experiential base and leading to abstraction and formalization. The project recommends that biology, chemistry, physics, and earth science be taught each year from grades 6 to 12.

This report includes chapters on the nature of science, mathematics, and technology, basic knowledge in six content areas, common themes, habits of mind, and recommendations for effective learning and teaching. The six content areas are: the physical setting, the living environment, human organisms, human society, the designed world, and the mathematical world.

**Mathematics**


This *Philosophy and Framework* focuses on important issues that must be clarified wherever curriculum reform is to take place and is intended as a complement to *Everybody Counts* and the NCTM *Standards*. Several changes currently push the reshaping or reconceptualization of mathematics. These changes include a greater need for mathematics in an information-age world, changes in how mathematics is used, changes in the role of technology, demographic shifts in the U.S., new understandings from cognitive science about how students learn, and international competitiveness. The document itself lists several principles that should guide the reshaping of mathematics. Examples of such principles include: (1) Mathematics education must focus on the development of mathematical power. (2) Calculators and computers should be used throughout the mathematics curriculum. (3) Mathematics instruction at all levels should foster active student involvement. (4) Curricular choices should be consistent with contemporary standards for school mathematics. Finally, the *Philosophy and Framework* sets forth goals that are consistent with constructivist, active learning in mathematics.


This text compares the mathematical achievement of students in the U.S. with that of students in about 20 other countries. On the basis of the data, the authors believe that now is the time to renew school mathematics in the U.S. A chief finding is that while teachers in the U.S. take the same number of courses in mathematics content and pedagogy, their attitudes about teaching and the status accorded to teachers are below those of teachers in other countries. Three areas are identified as targets for reform: the mathematics curriculum, the preparation of teachers, and the status and working conditions of U.S. teachers.


This document presents consensus standards for high-quality mathematics education for K-12 students. The document urges the development of mathematical power for all students, including the ability to explore, conjecture, and reason logically; to solve nonroutine problems; to communicate about and through mathematics; and to connect ideas within mathematics and between mathematics and other intellectual activity. Mathematical power is also defined by students' self-confidence and dispositions to seek, evaluate, and use mathematics.

This document spells out what teachers need to know to teach toward new goals for mathematics and how teaching should be evaluated for the purpose of improvement. The image of mathematics teaching requires curriculum and a learning environment very different from much of current practice. Teaching proficiencies include: selecting mathematical tasks to engage students; providing opportunities to deepen understanding; orchestrating classroom discourse to promote investigation; using, and helping students use, technology and other tools; seeking, and helping students seek, connections to previous and developing knowledge; and guiding individual, small-group, and whole class work.


This document charts a course for the future of mathematics education. Mathematics is described as a process of searching for patterns. Chapters contrast myths with reality to underscore how the mathematics curriculum must change to develop mathematical power, how the teaching of mathematics must change, and how the field must mobilize for curriculum reform.


This book begins with the rationale for changing mathematics and reasons why “new math” did not work. Four steps are recommended for improving mathematics education: (1) derive mathematics from the learner’s reality; (2) use the power of abstract thought; (3) practice; and (4) apply mathematics to interesting material. Chapters provide advice on implementing recommendations, problem solving, technological development, making connections, and fostering change.

**Social Science**


In this report, the Commission’s Curriculum Task Force presents goals for social studies education for the early primary grades (K-3), the later elementary grades (4-6), and junior high (7-8) and high school (9-12). Part II of this report focuses on findings from developmental and cognitive research that have application for the teaching of social studies. For example, the notion that students cannot deal with social studies abstractions until grade four is discredited. Social studies teachers must understand and deal with students’ faulty and private misconceptions about social phenomena. They also must understand that cooperative learning is an essential medium of study and learning in the social studies classroom. In the final section of this report, social science associations representing various disciplines—anthropology, economics, geography, politics, psychology, and sociology—present the key concepts, skills, and basic themes that any social studies curriculum should contain.

Children do not know social studies—history, geography, civics—for the simple reason that these subjects are not taught. The author presents five essential learnings in social studies: the democratic ideal, cultural diversity, economic development, global perspective, and participatory citizenship. Three commitments pervade this text: (1) Social studies should be genuinely thought-provoking for all students. (2) Social studies should concentrate on the essential learnings treated in depth. (3) Democratic education requires students to learn how to deliberate, to carefully consider issues in order to make informed decisions. The author also seeks to renew the curriculum through local or "home-grown" curriculum planning among those who actually must implement social studies in the classroom. Finally, there is a discussion of authentic assessment in social studies where tests require students to think and to demonstrate that they are capable of sound analysis and judgment.


This book presents goals and characteristics of a social studies curriculum. Sections describe curricula for grades K-3, 4-6, 7-8, and 9-12. The author presents the research base for curriculum choice and separate chapters for the perspectives of the social science associations: anthropology, economics, geography, American and world history, political science, psychology, and sociology.

**ASSESSMENT REFORM**


This paper critiques the performance statistics approach to holding schools accountable and explores the notion of "genuine accountability." The author calls for an examination of school practices along with student outcomes. An argument is made for improving schools by implementing reforms that are learner-centered and knowledge-based rather than procedure-oriented and rule-based. There are also discussions of equity and multiple assessments of students.


The authors raise questions about the appropriateness of standardized tests for assessing the progress of bilingual education students. Because a bilingual education program is built on objectives unique to the needs of its students, many of the items on a standardized test may not measure the objectives or content of that program. A standardized test may have low content validity for specific bilingual education programs. Some tests may not be sensitive to actual student progress. The authors explore alternative or "informal" assessment techniques, as contrasted with "formal" or standardized tests, and present some guidelines for ensuring adequate validity and reliability. There is a short discussion about portfolios and their use in the evaluation of bilingual education programs.
General Approaches to Alternative Assessment


This book opens with an overview of shifts in conceptions about the role of assessment. Separate chapters provide guidance for determining assessment purposes, selecting assessment tasks, setting criteria, ensuring reliable scoring, and using alternative assessment for decision-making. Chapters present useful tools such as checklists and charts.


The authors point out that the education community needs to adopt a more critical attitude toward assessment and its effects on teaching and learning. They address four criticisms about testing: (1) Tests give false impressions about the status of learning in schools. (2) Tests are unfair to various groups. (3) Tests reduce teaching and learning to mere preparation for testing. (4) Tests focus time and energy away from higher-order skills and more creative endeavors. Alternatives to standardized testing are explored with the caveat that the unreliability and lengthiness of individual teacher and committee evaluations in the past led to standardized tests and multiple-choice items as solutions. The authors see some promise in the use of computer technology and the applications of findings from cognitive science for the creation of better means for assessing students' skills. The overall point, however, is that the education system should not be in search of any single instrument. Standardized tests are currently being used for too many purposes. Instead, the authors call for a more thoughtful selection of different kinds of assessments for different purposes.

**Portfolio News**. San Dieguito Union High School District, 710 Encinitas Boulevard, Encinitas, CA 92024.

This is a newsletter published quarterly by the Portfolio Assessment Clearinghouse. Each issue contains reports of individual projects and discussion of current concerns in portfolio assessment. It also provides periodically updated abstracts of portfolio projects in schools, districts, and organizations around the country.

Assessment in Specific Subject Areas


This book explores the assessment of language and communication of young children between birth and age eight. The authors take an interactionist and developmental approach to language acquisition with particular attention to the sociolinguistic contexts in which it occurs. Communication is examined in a variety of settings: the home, day care, preschool, and the primary grades. There is also some discussion of the theories underlying the study of language acquisition.

This report summarizes a study of the feasibility of conducting large-scale assessments using school-based writing. The study explored procedures for collecting classroom writing samples from children around the country, developing methods for describing and classifying the variety of writing submitted, and creating general scoring guides that could be applied across papers written in response to a variety of prompts or activities. A nationally representative sample of fourth and eighth graders was asked to work with their teachers and submit a sample of their best writing efforts. The report summarizes lessons learned about portfolio assessment.


This volume presents papers by curriculum and assessment specialists, psychologists, researchers, and teachers. Articles describe why, what, and how new forms of assessment are in sync with science curriculum reforms. Chapters present examples of alternative assessments of science achievement, including features of science portfolios.


This is a panel report presenting a range of problems and recommendations for assessing elementary students’ science achievement. Chapters include issues in assessment, what student outcomes to assess and how to assess them, and ways to evaluate program features. Each chapter includes many examples.


Presents assessment procedures that examine students' ability to use reading and writing for a variety of purposes. Assessment is characterized as continuous, multidimensional, collaborative, grounded in knowledge, and authentic. Authors provide a framework for analyzing assessments according to their focus (infrastructure/skills, reading and writing processes, and context), structure, mode, content, and intrusiveness. A number of assessment examples are analyzed, including story retelling, holistic and analytic guides for rating writing, and a checklist for component writing processes, functions of writing, quality of writing style, fluency, and mechanics.

This booklet describes Vermont Department of Education’s first attempt to use portfolios to assess mathematics. The report presents a history of changes under way in mathematics education and an overview of the structure of the project. It describes how best pieces of student work are used to assess problem solving and mathematical communication skills. Criteria and levels of performance are described and samples of student work are presented. Also included are an overview of the pilot year, how student work was scored, the data collected, what was learned, and factors that will influence the success of the program.


This book contains chapters on the issues in the content, purposes, and use of writing portfolios throughout the grade levels. Many examples are provided of student work and teacher response to it.