WHAT WORKS

IN THE ELEMENTARY SCHOOL

RESULTS-BASED STAFF DEVELOPMENT

JOELLEN KILLION

NATIONAL STAFF DEVELOPMENT COUNCIL

NATIONAL EDUCATION ASSOCIATION

WHAT WORKS

IN THE ELEMENTARY SCHOOL

RESULTS-BASED STAFF DEVELOPMENT

JOELLEN KILLION

NATIONAL STAFF DEVELOPMENT COUNCIL

nea NATIONAL EDUCATION ASSOCIATION

NATIONAL STAFF DEVELOPMENT COUNCIL

P.O. Box 240
Oxford, OH 45056

(800) 727-7288
(513) 523-6029
Fax: (513) 523-0638
E-mail: NSDCoffice@aol.com

www.nsdc.org

WHAT WORKS IN THE ELEMENTARY SCHOOL RESULTS-BASED STAFF DEVELOPMENT
Joellen Killion
Editor: Nancy Ottem
Designer: Omar Rodriguez
Editorial Assistant: Deanna Sanchez
Photographs: Corbis

Printed in the United States of America.

NSDC Item #179

CONTENTS

WHAT WORKS IN THE ELEMENTARY SCHOOL: RESULTS-BASED STAFF DEVELOPMENT

Acknowledgments

The National Education Association (NEA), a leading professional association of classroom teachers of over two million classroom teachers and support personnel, is committed to strengthening teacher quality and staff development. A grant from the Teaching and Learning Division of the NEA has made this publication possible. The National Staff Development Council (NSDC) is grateful for NEA's generous support of this work. In particular, NSDC appreciates the support of Marilyn Nagano-Schlief who served as the liaison between NEA and NSDC and who also served on the National Advisory Panel. Her belief in the importance of her work and her ability to champion the cause was enormously beneficial throughout the two years of this project.

Many people contributed to this book. Their time, dedication to the goal, and hours of volunteer service indicate their clear focus on ensuring that each student has the best teacher and their deep belief that high quality staff development is vital to improving both teacher and student learning in schools. They have also made a commitment to ensuring that principals, teachers, and staff developers have information about successful professional development programs so that professional educators can learn from others' success.

The National Advisory Panel's contribution to this work has been remarkable. They brought their content expertise to the review of nominated programs and made decisions about what programs are included in this guide. They reviewed many projects to find those that met the rigorous criteria for inclusion. And, through their work, they formed relationships and built bridges among the content areas and thus will strengthen the work they do as teachers, principals, university faculty members, curriculum coordinators, and consultants. I am deeply indebted to them for their expertise and willingness to strengthen the quality of professional learning in all schools and for all teachers.

National Advisory Panel Members

George Bright
National Council of Teachers of Mathematics
Greensboro, North Carolina

Joanne Carlson
International Reading Association
College of St. Mary
Omaha, Nebraska

Linda Hoekstra
National Education Association
Stratford Landing Elementary School
Alexandria, Virginia

Mary McFarland
National Council for the Social Studies
Chesterfield, Missouri

Wendell Mohling
National Science Teachers Association
Arlington, Virginia

Marilyn Nagano-Schlief
National Education Association
Washington, D.C.

Sharon Nelson
National Science Teachers Association
Wisconsin New Teacher Project
University of California-Santa Cruz
Waunakee, Wisconsin

Kimberly Roempler
Eisenhower National Clearinghouse
Columbus, Ohio

Jane Swafford
National Council of Teachers of Mathematics
Hendersonville, North Carolina

Tim Westerberg
National Association of Secondary School Principals
Littleton High School
Littleton, Colorado

Results-Focused Leaders Ensure Quality Professional Learning

by Dennis Sparks

"What Works in the Middle: Results-Based Staff Development shows us that well-designed staff development with appropriate content and powerful processes for adult learning can lead to improvements in student learning," I wrote in the conclusion of my foreword for What Works in the Middle: Results-Based Staff Development for the elementary school's middle level companion publication. "Now it's up to the school leaders who study its findings to make certain that they are implemented within organizations that sustain teacher and student learning. Nothing less will do if our goal is to prepare students for a successful life in an increasingly complex, knowledge-rich world."

Those words ring particularly true to me three years later as I consider the meager progress made in the field of professional development despite the hard work and best intentions of many people. As this publication and many others make clear, we know a great deal about the content and processes of well-designed professional development that improves student learning. Unfortunately, in far too many schools, the gap between that knowledge and common practice widens each year as the research base increases, and professional development, as it is experienced by teachers, remains virtually unchanged.

For the most part, school leaders — both principals and teacher leaders — determine whether publications such as this one gather dust on shelves or make a significant contribution to student learning. Results-oriented leaders take the time to develop a deep understanding of both effective professional development practices and the content of the particular program that is being implemented. They also advocate a point of view that claims all students and teachers can learn and perform at high levels and consistently and persistently act in ways that are aligned with this deep understanding and point of view. Such leaders are unrelenting in their own learning and in their search for ways to continuously improve teaching and student learning.

Results-focused leaders are the reason I am optimistic about the capacity of teachers and administrators to create quality professional learning in all schools. Publications like this guide, for example, have aided schools in making informed decisions and taking appropriate actions to design and implement quality professional development for all teachers. Countless examples of such efforts can be found throughout North America, and their existence convinces me that they can be created wherever the desire for such an outcome exists.

As is often the case, the whole of What Works in the Elementary School: Results-Based Staff Development is greater than the sum of its parts because of the synergy produced by the teamwork displayed throughout the life of this project. Joellen Killion, NSDC's director of special projects, Marilyn Nagano-Schlief, senior professional associate from NEA's Teaching and Learning Division, and all those who served on the National Advisory Panel have done an outstanding job of identifying and bringing to our attention the programs included in this publication. The National Education Association's support and encouragement were also essential to this work, and NSDC wishes to convey its gratitude to the NEA for its advocacy of results-driven professional development.

WHAT WORKS

SECTION ONE:

INCREASING STUDENT ACHIEVEMENT

THROUGH TEACHER LEARNING

National Staff Development Council

National Education Association

CHAPTER 1

Student Achievement, Teacher Quality, and Professional Learning

Educational literature in the last decade has built a convincing argument about the role of professional development in promoting teaching quality and increasing student achievement. Simply put, the argument is this: What teachers know and do impacts what their students know and do. Deeper content knowledge, more content-specific instructional strategies, and greater understanding about how students learn will better enable teachers to craft instruction to meet the varying needs of students and help them achieve rigorous content standards. When teachers meet student learning needs, student achievement increases. For practicing teachers, staff development is an essential vehicle for continuous improvement of teaching.

What teachers know and do impacts what their students know and do.

For practicing teachers, staff development is an essential vehicle for continuous improvement of teaching.

Despite the growing body of literature that supports the relationships among staff development, teaching quality, and student learning, some educators and policy makers question the value of providing time and resources for professional learning. However, many educators, including principals and teachers, embrace the link between student achievement and teaching quality and advocate for improving staff development. The urgency now is to assist them in planning and implementing high-quality staff development, the kind of powerful professional learning that will transform teaching and increase learning for students.

Staff development alone, however, will not produce results (Sykes, 1999). To produce greater results for students, professional learning must be embedded into a system of comprehensive reform. Such reform must include rigorous content standards, assessment programs that inform teaching and measure student progress toward standards, policy changes that recognize the importance of and provide support for quality teaching, and leadership that advocates for high-quality professional learning and communities of learning. However, curriculum changes, assessment programs, policies, and leadership together are still insufficient to produce results in the classroom if they are not accompanied by professional development. According to What Matters Most: Teaching for America's Future (National Commission on Teaching for America's Future, 1996) "we have finally learned in hindsight what should have been clear from the start: Most schools and teachers cannot produce the kind of learning demanded by the new reforms — not because they do not want to, but because they do not know how, and the systems in which they work do not support them in doing so" (p. 5).

Longitudinal Trends in Student Performance

Schools' primary mission is to educate students to become contributing, productive citizens of our democracy. This has been an enduring goal of public schools since their inception. With each decade, achieving this goal becomes more challenging for educators who face students with increasingly diverse learning needs and rising expectations and demands for student achievement. Although this guide focuses on what works in elementary schools, the educational trends that form the background for it have been documented across the spectrum in elementary, middle, and high schools. A rigorous analysis of progress in the elementary grades will necessarily involve an examination of the longitudinal trends across the broader spectrum of all grades.

Educational progress since A Nation at Risk called for education reform in 1983 has been slow or minimal at best, leaving another generation of students unprepared. "Graduation rates and student achievement in most subjects have remained flat or have increased only slightly [in the decade between 1983 and 1996]. Only a small fraction of high school students can read, write or compute, and manage scientific material at the high levels required for today's knowledge-based jobs. According to national assessments, only about 10% of U.S. 17-year-olds can draw conclusions using detailed scientific knowledge; only 7% can solve math problems with more than one step; only 7% can read and understand specialized materials; and a mere 2% can write well-developed materials. Meanwhile, international tests continue to show U.S. high school students ranking near the bottom in mathematics and science" (National Commission on Teaching for America's Future, p. 5).

If high school students are performing so poorly, their earlier years in education are inadequately preparing them to meet the challenges of high school. Reforms in elementary grades have apparently not produced long-term results for students as yet. "All the directives and proclamations are simply so much fairy dust. Successful programs cannot be replicated in schools where staff lack the know-how and resources to bring them to life. Wonderful curriculum ideas fall flat in classrooms where they are not understood or supported by the broader activities of the school. And increased graduation and testing requirements only create greater failure if teachers do not know how to reach students so that they can learn" (National Commission on Teaching for America's Future, p. 5).

Successful programs cannot be replicated in schools where staff lack the know-how and resources to bring them to life.

Results of the National Assessment of Educational Progress Longitudinal Study (U.S. Department of Education, National Center for Educational Statistics, 2001) confirm that raising achievement levels of students is a considerable challenge. The National Assessment of Educational Progress (NAEP) has traced student academic performance over the last three decades. As a longitudinal indicator, NAEP 1999 Trends in Academic Progress is the only existing documentation of our nation's progress in education. In 1999, longitudinal trends in reading, mathematics, and science were published. Trends in writing have not yet been shared. The trends provide a picture of educational progress, and for elementary school students tested in 4th grade, the results are mixed (National Center for Education Statistics, 2001).

The data from the study present both encouraging and disturbing information. Over the last three decades, elementary grade students' (9-year-olds as tested on the NAEP) performance has made small gains despite the increased efforts to dramatically raise achievement of all students. Highlights of the longitudinal trends are presented below.

- A slight increase in 9-year-olds' performance in science has occurred during since 1970. Between 1970 and 1986, students' scores declined and have increased slightly since 1990.
- In science the gap between White and Black students narrowed slightly between 1970 and 1999 while the gap between White and Hispanic students was not statistically different in 1999 from 1977 scores.
- Mathematics scores have increased steadily from 1982 after many years of stable performance, yet still only one-fifth of the 4th grade students are scoring at the proficient or above levels.
- Reading scores for 9-year-olds increased during the 1970s and since 1980,

there has been only modest improvement, although the 1999 average scores were statistically different than the 1971 scores. The average reading scores of students in each quartile range in 1999 were higher than in 1971.

- In reading and mathematics, the gap between White and Black students narrowed between the early years of testing in 1971 and 1973 respectively and 1999.
- Female students outperform male students in reading since 1973.
- Among public school students, the average reading score of 9-year-olds was lower in 1999 than it was in 1980.
- Students attending nonpublic schools outperformed students attending public schools.
- Statistically significant differences existed in the performance of major subgroups of the student population on all major tests. White and Asian students outperformed Black and Hispanic students.

The most recent year's NAEP assessment results present a similar picture.

- Proficient achievement was reached by only 17% of the 4th graders on the 1994 history examination.
- 22% of the 4th graders exhibited proficiency on the 1994 geography test.
- 23% of the 4th graders scored at or above the proficient level on the writing test.
- On all writing tests, students eligible for free and/or reduced price lunch underperformed students not eligible for this benefit.
- On the 1998 civics test, 23% of the 4th graders scored at the proficient or above level.
- The majority of the 4th grade students wrote at the basic level on a four-point scale of below basic, basic, proficient, and advanced. Only 23% of the 4th graders wrote at the proficient level or above.

These results are both encouraging and discouraging. The statistically significant increases in mathematics, coupled with narrowing achievement gaps between subpopulations in the three decades, are encouraging. As the population of elementary school students changes with the changing demographics of the nation, schools are working harder to meet the demands of a more diverse population.

Yet, these data are also disturbing, especially in light of advances in teaching and learning over the last three decades. Educators know more than ever about how students learn. Rigorous content standards have been developed and adopted by virtually every state in the nation, along with accountability systems for monitoring student and school performance. Students and teachers are tested more. More states have adopted strict certification and licensure standards for new teachers and have simultaneously created procedures to allow other professionals with content expertise to enter the teaching profession to address shortages of teachers in the critical areas of special education, bilingual and ESL, science, and mathematics.

Yet these data are also disturbing, in light of the advances in teaching and learning over the last three decades.

More research, higher levels of fiscal investment, longer school days and years, changes in school schedules, advances in educational research and programs, stricter accountability systems, higher academic standards for students, and increases in student assessment have produced lit-

tle change in students' achievement in the last three decades. This startling realization has many possible explanations, but few will satisfy a public that is increasingly discontent and impatient with the nation's schools.

"Beyond these statistics and pressing concerns lies a sobering human reality — many of the nation's children are in deep trouble. Over the last generation, American families and communities have changed profoundly. We lead advanced nations in rates of childhood poverty, homelessness, and mortality rates for those under age 25, and we lag in rates of children enrolled in preschool education. Most children live in a single-parent household at some time while they are growing up. Many parents are hurried and harried as they try to earn enough to support their families and attend to their children's needs with fewer community supports to help them. Many children arrive at school hungry, unvaccinated, and frightened because the plagues of modern life – crime and violence, drug and alcohol abuse, lack of adequate health care – rage on unabated. Teachers are well aware that today's students lead much more stressful lives than did students of a generation ago. But despite the dedication of their staffs, most schools are organized as though none of this had happened" (National Commission on Teaching for America's Future, pp. 12 - 13).

Teaching Quality: A Link to Student Achievement

Despite the disappointing findings about students' academic progress, schools are beginning to acknowledge that investing in teaching quality is a powerful leverage point for increasing student success. Schools that have dramatically improved student achievement do so with an investment in human capital, their teachers. Like many parents, educators, and researchers, policy makers are realizing the link between teaching and learning. Quality teaching matters. Many federal, state, and local policy makers, educators, and others have an increased interest in knowing how to raise student success in schools. The idea that what teachers know and do influences what students know and do is well substantiated by research (Greenwald, Hedges, & Laine, 1996; National Commission on Teaching for America's Future, 1996; Wenglinski, 2000). Simply put, investing in teacher development is one significant way to increase student achievement.

Schools that have dramatically improved student achievement do so with an investment in human capital, their teachers.

Data about teachers sharpen the argument about the importance of professional development.

- More teachers with master's degrees teach in low poverty schools, in schools with low minority populations, or in suburban schools (Ingersoll, 2002).
- More teachers with less than regular certification, such as those with emergency, temporary, alternative, or provisional certificates, teach in schools with high minority enrollment, urban schools, and schools with high poverty enrollment (Ingersoll, 2002).
- Teachers with more experience are more likely to work in suburban schools and in schools with low poverty and low minority enrollment (Ingersoll, 2002).
- Teachers with more experience are less likely to have in-depth professional development in their content area (U.S. Department of Education, NCES, 2001).
- Slightly more than half the teachers of 4th grade students received professional development in civics, and these teachers taught less frequently using worksheets

and more often used group activities and active instructional techniques in their classrooms (U.S. Department of Education, NCES, 2001).

- 70% of teachers report that professional development moderately or somewhat improves teaching and content knowledge. Only 25% of teachers say that professional development improves teaching a lot. The percentage of teachers who indicate that professional development improves teaching a lot increases substantially if the professional development is more in-depth (more than 32 hours). Yet only one-fifth to one-half of the teachers participate in in-depth professional development about any topic (U.S. Department of Education, NCES, 2001).
- Fewer elementary school teachers have majors in academic areas or in subject area education than middle or high school teachers. For example, 67% of high school teachers majored in an academic field compared to 24% of elementary teachers. On the other hand, 52% of elementary teachers majored in general education compared to 11% of high school teachers (National Center for Education Statistics, 1999).

Teaching quality is impacted by a number of factors including teacher preparation, teachers' years of experience, and the number of out-of-field teaching assignments. Ingersoll has been studying in- and out-of-field teaching for a number of years. "At the elementary school level, the data show that 12 percent of those who teach regular pre-elementary or general elementary classes do not have an undergraduate or graduate major or minor in the fields of pre-elementary education, early childhood education, or elementary education. Interestingly, the data also show that beginning elementary teachers are more prone than experienced elementary teachers to be teaching out of their fields" (Ingersoll, p. 17). This means that teachers with more experience are likely to have an academic major in one of the elementary school subjects such as mathematics, English, science, or social studies. For example, the percentage of teachers with 25 years of experience without a major in English is 17.8%, while the percentage of teachers who have less than five years of experience without a major or minor in English is 26.1% (Ingersoll, 2002). He and other researchers have discovered that while most teachers in elementary and secondary schools are teaching in their areas of academic majors, the number of teachers doing so decreases in schools where there are high populations of low income and minority students. High poverty schools with higher numbers of minority students traditionally have fewer experienced teachers and more classroom instructors with less than regular certification. In addition, in schools with higher populations of minority or high poverty students more teachers teach courses outside of their academic preparation area (Ingersoll, 2002). As a result, high-quality staff development is essential, especially for teachers in schools with large populations of poor or minority students, to ensure that all students reach high levels of learning.

Teaching matters more than ever. Teacher learning is essential to improving student learning and many recent studies confirm the value of quality teaching. Ferguson (1991) reports that teacher quality is the most critical aspect of school and student success and has a direct impact on student learning. It matters more than many reform initiatives a school or district may adopt to address deficits in student learning (National Commission on Teaching for America's Future, 1996). When teacher learning is aligned with student learning needs and student curriculum, it contributes to increased student achievement. Teachers whose mathematics professional development was more aligned with the curriculum and assessment program saw greater gains in mathematics achievement (Cohen & Hill, 1997; Lampert & Ball, 1999; Sykes, 1999).

When teacher learning is aligned with student learning needs and student curriculum, it contributes to increased student achievement.

Studies reported by Education Trust in 1998 and conducted by Sanders & Rivers (1998); Ferguson (1991); and Greenwald, Hedges, & Laine (1996) present evidence of the impact of quality teaching in terms of student learning. Hanushek reports that the difference between good and bad teaching can be as great as a full level of achievement in a single year (Hanushek, 1997; Wenglinski, 2000). A study in Texas reported that the difference in student achievement resulting from good teaching vs. bad teaching was 35 points in reading and 50 points in math (Jordan, Mendro, & Weerasinghe, 1997). Difference in teaching practice accounts for at least some of the variation between high- and low-scoring students in the Third International Math and Science Study (Valverde & Schmidt, 1997-98). An 11-site study found a consistent, positive relationship between teachers' use of reform practices and student achievement.

"How Schools Matter," in Educational Policy Analysis Archives (Wenglinski, 2002, February 12), examines how a variety of educational factors, such as the kinds of innovations schools have implemented to improve student achievement, influence student achievement. The study finds that teachers who receive "rich and sustained professional development" in their content areas that focuses on higher-order thinking skills and concrete activities such as laboratories are more likely to engage in effective classroom practices that are associated with increased student achievement (Wenglinski, 2002).

Wenglinski (2000) also reports that students whose teachers receive professional development score better on assessments than students who do not have the benefit of such teacher practices. Some key findings from the study are listed below.

- Students whose teachers major in their content area, as did the teachers of mathematics and science who were the subject of this study, are 39% of a grade level ahead of other students in math and science achievement.
- Students whose teachers receive professional development in working with different student populations are 107% of a grade level ahead of their peers in math.
- Teachers who receive professional development in higher-order thinking skills have students who are 40% of a grade level ahead of students whose teachers did not have similar professional development.
- Students whose teachers receive professional development in laboratory skills are 44% of a grade level ahead of students whose teachers did not receive comparable training in science.
- Teachers who are more knowledgeable about the subject they teach are more likely to use instructional practices associated with increased student achievement.
- Students who engage in hands-on learning on a weekly rather than monthly basis are 72% of a grade level ahead in math and 40% of a grade level ahead in science.
- Students whose teachers engage them in higher-order thinking skills regularly are 39% of a grade level ahead in math.

Despite these findings, professional development is still missing its potential. Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers (NCES, 1999) presents the following information regarding teachers' professional development.

- Only 26% of teachers participated in professional development addressing the needs of students with limited English proficiency.

- 41% of teachers reported participating in professional development that addressed the needs of students with diverse cultural backgrounds.
- 48% of teachers reported participating in professional development addressing the needs of special education students.
- While 80% of the teachers participated in professional development on state or district curriculum standards, only 12% participated in in-depth study (beyond 32 hours).
- 43% reported study in their subject areas of their main teaching assignment, yet only 23% had in-depth study (beyond 32 hours).
- 72% of teachers participated in professional development in methods of teaching, yet only 11% participated in in-depth study (beyond 32 hours).
- Teachers who participated in more than eight hours of professional development in any area reported that professional development improved their teaching a lot.

Some may read these findings as an indictment of teachers. On the contrary, they acknowledge that school systems have failed to provide the kind of staff development teachers want and need. Teachers repeatedly express frustration about how to teach students new rigorous content standards in a high-stakes accountability system. They rightfully are concerned about the impact of their students' increasingly diverse learning processes and the fact that their students' levels of achievement can differ dramatically.

Some may read these findings as an indictment of teachers. On the contrary, they acknowledge that school systems have failed to provide the kind of staff development teachers want and need.

Increasing Teaching Quality: The Role of Professional Learning

In her study of Chinese and U.S. teachers' knowledge about fundamental mathematics, Ma (1999) observed that mathematics teaching in the United States "lacks an interaction between the study of mathematics taught and study of how to teach it" (Ma, p. 147). She suggests two reasons why this might be the case in the U.S. One is the assumption that elementary mathematics is basic and therefore requires no further study by teachers who have had basic high school and college math courses; the second is that teachers in general do not need further study of the subjects they teach. Schifter, as quoted in Ma, states: "the notion that even experienced teachers can and should be expected to continue learning in their own classrooms contrasts sharply with the traditional assumption that becoming a teacher marks a sufficiency of learning. It is no great exaggeration to say that, according to the conventions of school culture, teachers, by definition, already know – know the content domain they are to teach, the sequence of lessons they must go through to teach it, and the techniques for imposing order on a roomful of students" (Schifter, p. 163).

More than ever it is critical for elementary teachers to sharpen their content knowledge and content-specific pedagogy. Unfortunately, the kind of professional learning available to most elementary school faculty has failed to meet their expectations of deepening their content knowledge and expanding their techniques for teaching. Certainly one of teachers' biggest complaints about staff development is its lack of relevance to academic disciplines. Generic teaching strategies, while helpful to know, are not a useful staff development focus for educators because these strategies are often not aligned with the curriculum teachers are responsible for teaching, nor do teachers have time to plan how to integrate them into their instructional repertoire.

Many teachers today share these sentiments. As the nation depends more on the knowledge

capacity of its workforce and less on its physical capacity, it is essential to assist teachers of even the youngest children to "master more challenging content many times more effectively than they have ever done before. This means that teachers must understand students and their many pathways to learning as deeply as they comprehend subjects and teaching methods" (National Commission on Teaching for America's Future, p. 13). Too much is at stake for everyone involved ... students, teachers, principals, and their schools. Elementary schools must reexamine the quality of their professional development.

Too much is at stake for everyone ... students, teachers, principals, and their schools. Elementary schools must reexamine the quality of their professional development.

A major vehicle for improving teaching is professional development. Educators, especially teachers and their principals, require opportunities for ongoing development, as do other professionals. The National Staff Development Council recommends that every school become a learning community for teachers and the other professionals it employs. This recommendation calls for each educator to share a common goal for improving student achievement and be a part of a small group of educators who come together frequently to study and work collaboratively as a means of continuous improvement (National Staff Development Council, 2001).

Principals and teachers are in the learning business. It is a part of their role as professionals to keep abreast of developments and new research in their fields so that they can serve increasingly diverse students. With ongoing learning opportunities, educators expand their repertoire of skills, deepen their understanding of the content they teach, increase their ability to adapt instruction to meet the unique learning needs of their students, examine and refine their practice, and examine their beliefs.

Yet not just any professional development will do. Studies confirm that the amount of time teachers engaged in professional development was not significantly relevant to student achievement, but the content of the professional learning experiences was (Garet, Porter, Desimone, Birman, & Yoon, 2001; Wenglinski, 2000). In other words, more time allotted to professional development of poor quality will not improve student achievement. However, highly focused professional development that targets teachers' content knowledge and content-specific instructional practices will (Shulman, 1987; Wenglinski, 2000). Shulman defines pedagogical content knowledge as a mix of general teaching principles along with content-specific ways of teaching and learning. "What is needed is being able to comprehend subject matter themselves, to becoming able to elucidate subject matter in new ways, reorganize it and partition it, and clothe it in activities and emotions ... so that it can be grasped by others" (p. 13).

Professional development — when closely aligned with the school and district standards and assessments that students are measured against — produces greater returns on investment (Sykes, 1999). This approach starts with the student in mind. Staff development that is coherent and sustained over time, focusing on student learning, engaging students, incorporating higher-order thinking, and building a learning community produces greater results for educators and students (Garet, et al., 2001; Wenglinski, 2000).

Staff development that is coherent and sustained over time, focusing on student learning, engaging students, incorporating higher-order thinking, and building a learning community produces greater results for educators and students.

Human resource development is recognized as a powerful improvement strategy. Business and industry invest deliberately in developing the knowledge and skills of employees as a way to stay competitive and successful. A substantial percentage of investment is made in employee development as a strategy that produces results. Until recently, however, professional devel-

opment for educators has not been taken seriously as a viable reform option. Unfortunately, the early history of the field of staff development created a prevalent negative perception of staff development among teachers. That unfavorable impression, coupled with a lack of conclusive documentation of its effectiveness, has forced staff development to demonstrate its worth. In many school systems, staff development has been given limited resources including time and funding, and because it is perceived as an "add-on," it is often the first to go when budgets are tight. Teachers themselves will quickly assail the value of staff development because their experiences with it have been shallow and irrelevant and often interrupt instructional time. Yet, when their professional learning experiences were relevant, in-depth, coherent, and content-specific, they not only enjoyed the learning more but their students learned more as a result (Garet, et al., 2001; Wenglinski, 2000).

Elmore (in Farrace, 2002) states, "In order for there to be a legitimate focus on the effective teaching/active learning element, most schools must make a far greater effort in this area" (p. 18). He adds that professional development is best if it focuses on building knowledge and skills to do what teachers have not yet been able to do or not yet learned how to do versus releasing them to do what they already know how to do. He calls for increasing substantially the professional development that is instructionally focused. In addition, Elmore advocates a design that increases student learning by connecting people within their workplace to knowledge and skill development and by connecting people to the professional knowledge that lies outside their workplace with the intent of bringing new knowledge back into the workplace.

The knowledge-building capacity of elementary schools is dependent upon the ability to encourage the faculty to become collaborative learners in onsite professional development experiences. For many elementary school teachers, past experiences in school- or district-based professional development have lessened their desire to engage in more professional learning. They perceive professional learning through outside, subject-area communities as more personally rewarding and professionally beneficial than what is offered through their local school system. The appeal and benefits of outside professional development are having a degree of choice about the programs they select, pursuing areas of interest, and choosing when and how to engage in learning. Yet, individually guided staff development through graduate courses, workshops sponsored by professional associations or other related organizations, and conferences — while an important part of a staff development program — may further fragment, weaken, and isolate the knowledge-building capacity of the school.

The knowledge-building capacity of elemen - tary schools is dependent upon the ability to encourage the faculty to become collabora - tive learners in onsite professional develop - ment experiences.

Fullan (2001) cites knowledge building as one of five purposes of effective leadership. He recognizes that "first, people do not voluntarily share knowledge unless they feel some moral commitment to do so; second, people will not share information unless the dynamics of change favor exchange; and third, that data without relationships merely causes more information glut" (p. 6). Knowledge building suggests that elementary schools create a professional learning community to support and encourage knowledge building and sharing. Newmann, King, & Youngs (2000) found that individual teacher learning is insufficient to produce results unless the organization of the school is changing. "... Sending individuals and even teams to external training does not work" (Fullan, 2001, p. 79). Changing the context of schools to create settings for building and sharing learning among adults is essential to produce learning for students.

To produce results for students, professional learning for elementary school teachers simply must look different than it does today. It means that the workday for educators is redesigned to provide for large blocks of time for the kind of professional development that has been suc-

cessful in improving student performance. It requires adherence to the National Staff Development Council's Standards for Staff Development, Revised (2001). It occurs in schools committed to building the capacity of all educators to engage students actively in learning. It fosters and supports knowledge building and sharing rather than knowledge hoarding. It means that schools and districts recognize and support the professional development necessary to hold teachers accountable and responsible for student success. It means that change on a grand scale cannot happen in short time periods simply because a new program has been introduced. It means that teachers and principals work together to identify and solve complex problems ... not with simple, easy-to- implement strategies recommended by those outside the school, but with answers that they construct for themselves. It means that students are at the center of all decisions, and their success is the only measure of the value of professional learning. Simply put, for many schools, it means a new way of doing business in relationship to professional learning.

Richard Elmore perhaps said it best: "If you're going to make the changes in student learning that accountability requires, you have to dramatically increase the skill and knowledge of teachers and principals" (in Farrace, 2002, p. 40). Continuous, high-quality professional development is essential to the nation's goal of Leave No Child Behind. What we know is that the quality of teaching makes a difference in students' learning in schools. We know that ongoing professional learning is a critical leverage point for influencing the quality of teaching. We know the context, processes, and content of high-quality professional development (NSDC, 2001). Our challenge is to use what we know to make sound decisions about the design, implementation, and evaluation of professional development so that we can improve student and teacher learning in every school.

This book is one way the National Education Association and the National Staff Development Council hope to contribute to ensuring that there is a quality teacher in every classroom and that each teacher has an opportunity for rich, ongoing professional learning. What accounts for the educational system's inability to make dramatic change and improvements in student academic success, especially given the extraordinary advances in the last three decades? It is not the purpose of this book to answer that question, nor can it be answered easily. Instead, this guide recognizes that advances in student achievement are closely linked with increases in teaching quality, and that teaching quality is influenced by the nature and quality of professional learning available to teachers throughout their careers. The guide presents models of content-specific staff development programs that have evidence of increasing student achievement. By studying and identifying efficacious programs and compiling this publication, the National Staff Development Council and the National Education Association hope to provide resources to elementary schools willing to examine their professional development practice and commit to strengthening its quality and results for students.

This book is one way the National Education Association and the National Staff Development Council hope to contribute to ensuring that there is a quality teacher in every classroom and that each teacher has an opportunity for rich, ongoing professional learning.

References

Cohen, D., & Hill, H. (1997). Instructional policy and classroom performance: The mathematics reform in California. Unpublished manuscript. Ann Arbor, MI: University of Michigan.

Education Trust. (1998, Summer). Good teaching matters a lot: How well-qualified teachers can close the gap. Thinking K-16, 3(2), 1–14.

Farrace, B. (2002, January). Building capacity to enhance learning: A conversation with Richard

Elmore. Principal Leadership, 2(5), 39 - 43.

Ferguson, R. (1991, Summer). Paying for public education: New evidence on how and why money matters. Harvard Journal of Legislation, 28(2), 465 - 491.

Fullan, M. (2001). Leading in a culture of change. San Francisco: Jossey-Bass.

Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. (2001, Winter). What makes professional development effective? Results from a national sample of teachers. American Educational Research Journal, 38(4), 915 - 945.

Greenwald, R., Hedges, L., & Laine, R. (1996). The effects of school resources on student achievement. Review of Educational Research, 66(3), 361 - 396.

Hanushek, E. (1997). Assessing the effects of school resources on student achievement: An update. Educational Evaluation and Policy Analysis, 19(2), 141 - 164.

Ingersoll, R. (2002). Out-of-field teaching, educational inequality, and the organization of schools: An exploratory analysis. Seattle, WA: Center for the Study of Teaching and Policy.

Jordan, H., Mendro, R., & Weerasinghe, D. (1997). Teacher effects on longitudinal student achievement. Dallas, TX: Dallas Public Schools.

Killion, J. (1999). What works in the middle: Results-based staff development. Oxford, OH: National Staff Development Council.

Killion, J. (2002). Assessing impact: Evaluating staff development. Oxford, OH: National Staff Development Council.

Lampert, M., & Ball, D. (1999). Aligning teacher education with contemporary K-12 reform visions. I n L. Darling-Hammond & G. Sykes (Eds.), Teaching as the learning profession: Handbook of policy and practice. San Francisco: Jossey-Bass.

Ma, L. (1999). Knowing and teaching elementary mathematics: Teachers' understanding of fundamental mathematics in China and the United States. Mahwah, NJ: Lawrence Erlbaum Associates.

National Center for Education Statistics. (1999). Teacher quality: A report on the preparation and qualifications of public school teachers. Washington, DC: U.S. Department of Education Office of Educational Research and Improvement.

National Center for Education Statistics. (2001). National Assessment of Educational Progress. (1999). NAEP 1999 Trends in Academic Progress. Washington, DC: US Department of Education.

National Commission on Teaching for America's Future. (1996). What matters most: Teaching for America's future. New York: Author.

National Staff Development Council. (2001). National Staff Development Council's standards for staff development, revised. Oxford, OH: Author.

Newmann, F., King, B., & Youngs, P. (2000, April). Professional development that addresses school capacity. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Sanders, W., & Rivers, J. (1998). Cumulative and residual effects of teachers on future student academ ic achievement. Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center.

Schifter, D. (1996). Conclusion: Throwing open the doors. In D. Schifter (Ed.), What's happening in math class?: Reconsidering professional identities. (Vol. 2, pp. 163 - 165). New York: Teachers College Press.

Shulman, L. (1987). Knowledge and teaching: foundations of the new reform. Harvard Educational Review, 57(1), 1 - 22.

Sykes, G. (1999). Teacher and student learning: Strengthening their connection. In L. Darling-Hammond & G. Sykes (Eds.), Teaching as the learning profession: Handbook of policy

and practice. San Francisco:Jossey-Bass.

U.S. Department of Education, National Center for Education Statistics. (2001). Condition of Education 2000. NCES 2000. Washington, DC: U.S. Government Printing Office.

Valverde, G., & Schmidt, W. (1997, Winter). Refocusing U.S. math and science education. Issues in Science & Technology Online. [On-line] http://www.nap.edu/issues/14.2/schmid.htm. 2001, September 28.

Wenglinski, H. (2000). How teaching matters: Bringing the classroom back into discussions of teacher quality. Princeton, NJ: Milken Family Foundation and Educational Testing Service.

Wenglinski, H. (2002, February 12). How schools matter: The link between teacher classroom practices and student academic performance. Education Policy Analysis Archives, 10(12). On-line]. http://epaa.asu.edu/epaa/v10n12. 2002, February 26.

CHAPTER 2

Accepting the Challenge: Evaluating Professional Learning

There is "no question that staff development can raise student achievement when it addresses the academic content that teachers teach, their teaching repertoire, and the amount of practice they provide students in particular areas." (Bruce Joyce, director of Booksend Institute, in Sparks, 1998). Demonstrating the link between staff development and student achievement challenges most evaluators. Although this connection may seem obvious, the proof that staff development leads to increased student achievement eludes evaluators. While demonstrating the link between staff development and student achievement is methodologically challenging, it is possible and is increasingly essential to do.

While demonstrating the link between staff development and student achievement is methodologically challenging, it is possible and is increasingly essential.

Continuing the Conversation

Results-Based Staff Development for the Middle Grades Initiative was launched to answer this question: "Which staff development programs improve student learning?" The National Advisory Panel discovered almost immediately that this work would generate more questions than answers. Its successor, the Results-Based Staff Development Initiative for Elementary and High Schools, shared the same goal. As the new National Advisory Panel worked to select content-specific elementary school staff development programs for inclusion in What Works in the Elementary School: Results-Based Staff Development, the original question was still valid. More research is available to substantiate the link between staff development and student learning; yet despite the increasing body of research, doubters continue to ask if we can prove that staff development increases student achievement. The answer is no. No conclusive proof exists that staff development causes increased student achievement. Nor, for that matter, can we prove that student achievement can be attributed to increased accountability, assessment, higher standards, or small classes sizes, to name just a few other widespread educational interventions. We certainly have a growing body of evidence that staff development contributes to improved student academic success.

The myriads of questions asked during the middle grades initiative were repeated here; however, they were less daunting for a number of reasons. The National Advisory Panel's previous experience with this work was a tremendous help in overcoming the skeptics who suggested that this work could not be done. Prior success was a wonderful guide that led us in undertaking the identification of the elementary school programs. More studies about the link between teacher and student learning have been done. Policy and decision makers have more openly accepted staff development as a powerful intervention in increasing student achievement and have strengthened policies, increased resources, and improved the quality of staff development in the last few years.

Discovering the similarities and differences in programs when repeating this process several years later and for elementary schools has been intriguing. The National Advisory Panel hopes that this work will add to the dialogue so that all educators and their various constituents are able to engage in conversation as they consider for themselves the link between staff development and student learning.

What Works in the Elementary School: Results-Based Staff Development will help others who are trying to discover which staff development programs impact student achievement. This chapter explores the challenges of evaluating staff development and summarizes the evaluation methods used by the programs included in the guide. The chapter also addresses the systemic nature of staff development and how it affects evaluation processes. In addition, the chapter discusses the difficulties of attempting to prove that staff development increases student achievement. Finally, the chapter discusses how the programs included in this guide have demonstrated that staff development influences student achievement.

The Systemic Nature of Staff Development

To depend solely on staff development in an effort to improve student achievement is to tinker around the edges. Staff development is certainly necessary to increase student achievement. However, staff development alone cannot be successful unless the system in which it occurs supports high levels of learning for both staff and students. NSDC's context standards call for the establishment of learning communities, strong leadership, and appropriate resources to support staff development and the application of learning. When staff development is present — along with other factors that support quality staff development and student achievement — students' achievement increases.

To depend solely on staff development in an effort to improve student achievement is to tinker around the edges. ... Staff development alone cannot be successful unless the system in which it occurs supports high levels of learning for both staff and students.

Staff development is much like the respiratory system in the body. As one of the body systems, it is essential to the body's basic operation. But, to be fully functioning and healthy, the body needs all its systems working together. Removal or dysfunction of any system leaves the body in poor health and at risk. The same is true for school improvement efforts focused on increasing student achievement. To be successful, school improvement requires multiple systems, working together to achieve success. These systems include staff development, compensation, teacher evaluation, student assessment, and many others. Eliminating any one system increases the risk that school improvement efforts will be unsuccessful.

In addition, simply knowing that teachers participated in staff development and that student achievement increased does not prove that staff development was responsible for the increase. Multiple factors such as higher standards, improved curriculum frameworks, and new types of assessment are also associated with increased student learning and cannot be measured in isolation. It is nearly impossible in the complex social system of schools to determine if a particular factor, such as staff development, was exclusively responsible for increased student achievement. Therefore, staff development leaders and decision makers need to acknowledge the relationship of many factors rather than to attempt to show that staff development is a single cause of increased student achievement.

The relationship between staff development and student achievement is correlational, not causal. The programs in the guide demonstrate that a positive relationship exists between staff development and student achievement. While some programs have used experimental designs for the evaluations and large numbers of students, a cause and effect relationship has not been verified in any of these projects because controlling for the multiple intervening variables is almost impossible. Staff development was present in all of the cases where student achieve-

ment was realized and is certainly one systemic element related to the documented increase in student achievement in each of the programs.

Evidence Not Proof

Rigorous experimental research to provide proof that staff development causes increases in student achievement is extremely difficult in the complex social environment of schools. Too many intervening variables occur simultaneously, especially in schools engaged in systemic reform. If proof is not possible, evaluators will use evidence about the impact of staff development (Guskey, 2000; Killion, 2002). Joyce (in Sparks, 1998) suggests that we stop trying to select that elusive, "perfect" form for academic evaluation of staff development efforts. It is quite possible that new forms of evidence and new approaches to evaluation will need to be applied to further demonstrate the link between staff development and student achievement. Staff development leaders, researchers, providers, and practitioners need to put on the table for discussion the issues about and examples of evidence that demonstrate the impact of staff development on student achievement.

It is quite possible that new forms of evidence and new approaches to evaluation will need to be applied to further demonstrate the link between staff development and student achievement.

What is evidence of impact? This question appears simple but is laden with embedded values and beliefs. Prior to answering this question, evaluators need to understand that different audiences may want different answers to this question. For example, teachers may want to know how much effort a student expends on a particular academic task. Principals may be interested in knowing if students are coming to school and attending classes. Policy and decision makers may want to know what the return on the investment is for expenditures in staff development. And, some audiences may not be interested in isolating staff development as the single factor that improves student achievement. Instead, they may be satisfied by simply knowing that when a school provides additional resources for reading, increases the instructional time for reading, and provides staff development designed to help teachers more effectively use the increased instructional time, student reading achievement increases. Responding appropriately to these various needs requires different forms of data collection and evaluation designs (Killion, 2002).

Knowing what a school's, or district's, diverse audiences want to know about the relationship between staff development and student achievement will guide evaluators. To conduct systematic and comprehensive evaluation of a staff development program, evaluators design the evaluation question, construct an evaluation framework, collect data, organize and analyze data, interpret data, and prepare the evaluation report (Killion, 2002).

What constitutes appropriate evidence of student achievement? To determine impact, the evaluator measures change. The National Advisory Panel posed its own questions about what constitutes good measures of changes in student achievement. For example: "Are standardized achievement tests with a standard error often exceeding five months powerful enough to measure increases in student learning?" Or, "What forms of assessment will measure increases in student achievement that result from changes in teacher content knowledge and instructional practice (e.g., greater use of inquiry or using writing in mathematics or science)?" "What evidence best demonstrates increases in student achievement?" "Must there be a standardized test or will performances or authentic products, which meet prescribed standards, be sufficient to document student achievement?"

The primary criterion for any project to be considered for inclusion in What Works in the Elementary School: Results-Based Staff Development was evidence of student achievement — what students know and are able to do. For the purpose of this study, indicators of student achievement include measures such as standardized tests, student portfolios, performance tasks, criterion-referenced tests. A more thorough discussion of the measures of student achievement appears in Chapter 3, "The Selection Process." While these indicators are related strictly to students' academic success, evaluators might also determine whether their program goals require them to consider other indicators (such as participation, engagement, attendance, satisfaction with school, or self-confidence) as supplemental indicators of student success, as opposed to direct measures of student achievement. Evaluators may also want to look at teacher behaviors as possible sources of evidence (such as the frequency with which particular teaching behaviors were used, the amount of support available to and used by teachers, and the availability and use of implementation resources).

Glass Box vs. Black Box

Evaluations of staff development tend to be black box in nature (Killion, 2002). That is, they assume that a treatment, staff development, produces results, student achievement. While that is basically true, those familiar with staff development know that what is typically called staff development (the input or training provided) is only one component of what staff development must include to produce the intended results. According to Joyce and Showers (1995), only a small percentage of what is learned in most training programs is likely to be incorporated into routine practice and used to solve problems in the classroom unless some form of ongoing support is available, such as occurs with classroom coaching and study groups.

For staff development leaders to realize the full potential of professional learning, they will want to recognize that any staff development necessarily incorporates initial training events or learning experiences and an ongoing, in-depth, long-term focus on learning, a system of feedback and support for application, and access to data for continuous improvement. In other words, staff development focuses on building teachers' knowledge and skills, yet it includes attention to developing the attitudes, aspirations, and behaviors that are consistent with quality teaching.

Staff development focuses on building teachers' knowledge and skills, yet it includes attention to developing the attitudes, aspirations, and behaviors that are consistent with quality teaching.

To evaluate staff development, evaluators consider many factors. First, they define the staff development program that is being evaluated. While professional learning is a continuous process that occurs throughout an educator's career, a staff development program, on the other hand, is a distinct set of learning experiences that are usually limited in time and focus. Developing a theory of change that specifies the causal assumptions that underlie the program and a logic model that determines the component activities of the program (Killion, 2002) are ways to begin to define the staff development program to be evaluated. By taking these initial steps, the program director gains insight into the best types of evidence to collect to make a judgment about the impact of the staff development program on student achievement.

Once the staff development program is defined, the evaluator examines it in a glass box process. "Glass box evaluations reveal the transformative process that starts with the inputs and arrives at the outputs" (Killion, p. 25). The evaluator builds a stream of evidence that

not only demonstrates the results of a particular program, but also explains the underlying causal mechanisms that contribute to the program's success or failure. They provide information on what occurred in a staff development program and how it occurred, increasing the ability to explain the link between staff development and student achievement.

Another critical consideration for evaluators of staff development is selecting a measure of student achievement that aligns with the intended change in teacher behavior and student learning. For many staff development programs, measures of student achievement are too remote from the classroom context or misaligned with the intended changes in teacher or student knowledge and skill. For example, a teacher who is learning reform mathematics and the use of constructivist approaches to the teaching of mathematics may not be able to substantiate the impact of her learning if the only measure of students' mathematical knowledge is a state-level criterion reference or standardized achievement test that measures other mathematical processes.

Another critical consideration . . . is selecting a measure of student achievement that aligns with the intended change in teacher behavior and student learning.

Issues related to evaluating staff development are addressed in great detail in Assessing Impact: Evaluating Staff Development (Killion, 2002). Some simplistic approaches to evaluating staff development by using black box evaluations have increased criticism about the impact of staff development on student learning. Unfortunately, many of the evaluations conducted for the programs included in this resource guide fall into the black box category, even though evaluation methods are available to provide a more thorough evaluation of the relationship between staff development and student achievement. As researchers and evaluators adopt some of these more effective practices, the body of literature about the relationship between teacher and student learning will continue to grow and be refined.

Evaluation Designs

Evaluation designs to measure the impact of staff development on student learning are typically quasi-experimental or qualitative rather than experimental. Experimental research design allows the researcher to control for extraneous factors — those differences that exist in the subjects and environment that may influence changes in student achievement. It also requires random assignment of subjects to control and treatment groups. When staff development is implemented schoolwide or districtwide and students are in intact classes, randomization is limited and sometimes not feasible. The approach closest to strict randomization is to assign teachers and classrooms to either experimental or control groups or to identify equivalent groups through statistical equalization.

The most common form of evaluation used in the 32 programs included in this guide is quasi-experimental. Quasi-experimental research is a form of experimental research done when the subjects are not randomly assigned to treatment and control groups, and that allows for comparison. Some of the selected programs randomly assigned classrooms and teachers, but not students, to either a treatment or control group.

Some researchers who used quasi-experimental research adjusted for potential differences between control-treatment groups prior to the treatment. They conducted statistical measures of equivalency to demonstrate that both the control and treatment groups were similar. This process provides some compensation for the lack of random assignment to control and treatment groups.

Several evaluation designs were used to demonstrate the link between staff development and student achievement. Table 1 (see pages 27-28) presents the various evaluation designs used to demonstrate the link between staff development and student achievement in the 32 programs included in this guide. Along with a brief description of each design are the specific programs that used each evaluation design. If multiple measures of impact were conducted, some programs are listed more than once. The data sources or measures and strengths and limitations of student achievement are listed for each design.

Body of Persuasive Evidence

The search for persuasive evidence to demonstrate the link between staff development and student achievement was one goal of the Results-Based Staff Development for the Middle Grades initiative and continued as a goal for the elementary and high school initiatives. The elementary school search resulted in identifying 32 staff development programs with evidence of increased student achievement. Individually these efforts may not be persuasive; however, as a collection of studies across a wide span of subject areas, in many diverse settings, and with different measures of student achievement, they provide convincing evidence that staff development is strongly related to student achievement.

Individually, these efforts may not be persuasive; however, as a collection of studies . . . they provide convincing evidence that staff development is strongly related to student achievement.

Even though the relationship between staff development and student achievement is logically and intuitively sound, additional evidence to support this body of research is important. Evaluators, staff development leaders, and program coordinators must join forces to monitor, gather additional evidence, and communicate the results of their work to extend the body of evidence presented in this guide.

Limitations of This Work

The studies included in this guide have a number of methodological flaws and, in some cases, are evidence of a single year's results rather than of multi-year, longitudinal studies. Most are black box evaluations that do little to shed light on the transformative processes used in these programs. What they do represent are significant attempts to know if content-specific, results-specific staff development for elementary school teachers increases student achievement.

While What Works in the Elementary School: Results-Based Staff Development does not provide conclusive proof to support the link between staff development and student achievement, it provides evidence that there is a strong link between them. Further, it suggests that additional study of appropriate ways to demonstrate this relationship is necessary. The 32 selected results-based staff development programs help answer the question: "Does staff development make a difference?" What they do not help us know is how much difference it makes. Nor does this work identify what aspects of the staff development program contribute most to teacher and student learning. The pronounced similarities among these programs are described in Chapter 10, "Up to Standard." Yet, more research is needed to determine if these similarities are responsible for the success of the programs included in this guide.

To build additional support for the hypothesis that teacher learning increases student learning, practitioners and researchers must expand the body of evidence using other evaluation methodology and disparate program settings and situations, identify the best ways to document the increased student achievement, and determine if it is possible to demonstrate to what degree staff development impacts student learning.

Table 1: Evaluation Designs

Design	Data Sources/ Measures	Strengths	Limitations
Experimental			
1. Pre-post test with randomly assigned control/comparison and treatment groups (random assignment of teacher and/or classes) Programs using this design: • Project CRISS • Project Success Enrichment • 6 + 1 Trait™ Writing Model • Early Intervention in Reading • Reading Recovery • Scaffolding Early Literacy Program • Cognitively Guided Instruction	• standardized tests • program-developed tests • criterion-referenced tests	• measures growth • permits a calculation of significance • increases the generalizability of results • reduces the chance that the change is the result of other factors • accounts for differences in the groups before treatment • increases the ability to isolate the effects of staff development	• requires advanced planning • may not be possible to randomly assign groups in real-life contexts • results may be affected by pre-test (testing and sensitizing effect)
Quasi-Experimental			
2. Post-test only with no or a nonequivalent matched control/comparison and treatment group Programs using this design: • Exemplary Center for Reading Instruction • National Writing Project • Rice University School Mathematics Project – Summer Campus Program • Achievement First • Comprehensive Reading Program Using Culyer Strategies in Reading • For the Children:Practices Leading to Performance • We the People ... Project Citizen • Gateways to Literacy Project • Science Education Enhancing the Development of Skills	• standardized tests • program-developed tests • criterion-referenced tests • performance assessments with established scoring guides	• measures changes in achievement • permits a calculation of significance • eliminates testing effects (practice and sensitizing)	• does not account for difference in the groups prior to the treatment • requires advanced planning • may be difficult to select or identify a control group • does not account for other factors that may have contributed to the growth
3. Post-test only with equivalent matched control/comparison and treatment group Programs using this design: • Junior Great Books • We the People ... The Citizen and the Constitution • Early Literacy and Learning Model • Reading Recovery • We the People ... Project Citizen	• standardized tests • program-developed tests • criterion-referenced tests	• measures changes in achievement • increases the generalizability of results • reduces the chance that the change is the result of other factors • reduces testing effects	• requires advanced planning • may be difficult to select or identify a control group • does not account for differences in the groups prior to treatment
4. Pre-post test with no control/comparison group Programs using this design: • Questioning the Author • Rice University School Mathematics Project – Summer Campus Program • Teachers Academy for Math and Science • TREASURMath • Scaffolding Early Literacy Program • Early Literacy Initiative Project	• program-developed tests • criterion-referenced tests • performance assessments with established scoring guides	• measures changes in achievement • permits a calculation of significance	• requires advanced planning • does not account for extraneous factors • does not permit generalizability to other programs • results may be affected by the pre-test (practice and sensitizing effect)

Table 1: Evaluation Designs, cont.

Design	Data Sources/ Measures	Strengths	Limitations
Experimental			
5. Pre-post test with non-equivalent matched treatment and control/ comparison groups Programs using this design: • Iowa Chautauqua Program • National Writing Project • Questioning the Author • Reading Power in the Content Areas • 6 + 1 Trait™ Writing Model • The Learning Network • Teachers Academy for Math and Science • Developmental Approaches in Science, Health, and Technology • University of Illinois at Chicago – All Learn Mathematics	• standardized tests • program-developed tests • criterion-referenced tests • performance assessments with established scoring guides	• measures growth • permits calculation of significance • increases ability to isolate the effects of staff development	• results may be affected by the pre-test (practice and sensitizing effect) • may be difficult to identify a control group • requires advanced planning
6. Pre-post test with equivalent matched control/comparison and treatment groups Programs using this design: • Expeditionary Learning Outward Bound • Junior Great Books • Rice University School Mathematics Project – Summer Campus Program • Literacy Collaborative • Reading Recovery • Cognitively Guided Instruction • Carbo Reading Styles Program	• standardized tests • criterion-referenced tests	• measures growth • permits calculation of significance • increases the generalizability of results • reduces the chance that the change is the result of other factors • accounts for differences in the groups before treatment	• changes may be the result of the pre-test (practice and sensitizing effect) • may be difficult to identify a control group • requires advanced planning
Qualitative			
7. Case study Programs using this design: • The Learning Network • Developmental Approaches in Science, Health, and Technology	• performance assessments with established scoring guides	• describes changes that occur as a result of the intervention	• does not account for other factors that may have contributed to the changes • does not permit generalizability to other programs

References

Guskey, T. (2000). Evaluating professional development. Thousand Oaks, CA: Corwin Press.

Joyce, B., & Showers, B. (1995). Student achievement through staff development. (2nd ed.) White Plains, NY: Longman, Inc.

Killion, J. (1999). What works in the middle: Results-based staff development. Oxford, OH: National Staff Development Council.

Killion, J. (2002). Assessing impact: Evaluating staff development. Oxford, OH: National Staff Development Council.

Sparks, D. (1998, Fall). Making assessment part of teacher learning: An interview with Bruce Joyce. Journal of Staff Development, 19(4), 33-35.

CHAPTER 3

The Selection Process

The process for identifying and selecting the programs published in What Works in the Elementary School: Results-Based Staff Development involved establishing the criteria for inclusion, identifying potential programs, and completing a two-level review process.

Establishing Criteria for Nomination

Four criteria were established in 1997 by the Results-Based Staff Development for the Middle Grades Initiative National Advisory Panel. The same criteria guided the work of the National Advisory Panel for the selection of the elementary school content-specific staff development initiatives that are included in this resource guide. While the criteria are unique to this study and its predecessor, they provide other educators — especially those on school improvement teams — with a beginning point for examining any staff development programs under consideration.

While the criteria are unique to this study and its predecessor, they provide other educators – especially those on school improvement teams – with a beginning point for examining any staff development programs under consideration.

The criteria are:

1. Results measured in terms of student performance.
2. Well-defined staff development program.
3. Content-specific staff development designed to improve elementary school teachers' content knowledge and/or content-specific pedagogical skills.
4. Program occurs at multiple schools within district or in multiple districts, state, or regional areas.

Criterion One: Results measured in terms of student performance.

The first criterion requires staff development programs to measure their success in terms of what students know and are able to do. Only evidence of student academic achievement was acceptable. Changes in behavioral or attitudinal indicators were insufficient for this work, even though they are often considered substitutes for achievement indicators. The panel members decided that changes in reasoning skills, inquiry, discourse, or student attitude alone are insufficient to warrant consideration for inclusion of the program in the guide. This meant, for example, that an increase in students' participation in class or evidence of higher-order thinking skills was not sufficient as evidence of student achievement. They further agreed that student report cards or teacher reports of student learning did not adequately demonstrate student achievement. In addition, panel members agreed that evidence was strengthened when data from multiple-year efforts, multiple sources, and/or subpopulations were available and showed positive changes. Longitudinal data were not required, yet they were desirable and many programs selected for inclusion demonstrated multiple years of success.

In determining the type of evidence that would demonstrate increased student achievement, the National Advisory Panel members agreed that positive changes in the following measures of student achievement would serve as evidence:

- Standardized achievement tests
- Portfolios
- Exhibitions
- Performance tasks
- Performance events
- State assessments
- Local criterion-referenced tests
- Participation in nonschool academic events
- Participation in higher-level courses
- Other products for which there is a defined standard of quality and training for those who will conduct the assessment.

Evidence of student achievement was the first screen for programs and also the one that caused the most programs to be eliminated. Unlike in the middle grades initiative, far fewer elementary school staff development programs were submitted. Acceptance rates were significantly higher, reaching close to 90% for elementary school projects. This is a sharp contrast to the middle grades acceptance rate of 2%. Clearly, having the middle grades project completed and available as a model helped program directors make their own determination of their program's chances for success in the rigorous review process. Program directors were encouraged to visit the NSDC web site and read descriptions of the middle grades content-specific staff development programs that were included before submitting a nomination for their programs. Many phone calls and e-mails with program directors who called to discuss their evidence of impact also helped weed out programs that were clearly unable to meet the criterion regarding student achievement. In several instances, program directors, who had not evaluated the impact of their program on student achievement, secured data from schools and districts that had implemented their program to be considered. In other instances, attempts to use teacher testimonials or samples of student work were insufficient to meet the student achievement criterion.

Clearly, having the middle grades project completed and available as a model helped program directors make their own determination of their program's chances for success in the rigorous review process.

Criterion Two: Well-defined staff development program.

The second criterion is a well-developed staff development program. This criterion was not as challenging for programs to meet. Many of the programs reviewed had strong staff development programs, with design elements that were not present in a number of the middle grades programs submitted just a few years earlier. To review the staff development associated with each program, the National Advisory Panel members examined each program's goals, syllabi, sample materials, time allocation, content, and processes.

Refreshingly, the elementary staff development programs are breaking from the tradition of training as the predominant model of staff development. Many of the programs included here, particularly the literacy programs, are incorporating coaching, observation, learning community structures for study groups, action research, and other ways of engaging educators in professional learning. As these practices become more comfortable for teachers, staff development will have a greater chance of becoming more transformational. While many of the programs included in What Works in the Elementary School: Results-Based Staff Development contin-

ue to include intensive summer workshops with follow-up during the school year, many are also moving toward job-embedded staff development occurring during the school day.

In addition, an assessment of the program's staff development component was done based on the NSDC's Standards for Staff Development, Revised (2001). This assessment may not fully reflect all aspects of each of the selected programs. For example, because site visits were not conducted, context standards were difficult to assess. Users of this guide are encouraged to talk with schools and district representatives who are listed for each program to determine the degree to which their particular implementation aligns with NSDC's standards.

Users of this guide are encouraged to talk with schools and district representatives who are listed for each program to determine the degree to which their particular implementation aligns with NSDC's staff development standards.

Context Standards

Learning Communities: Staff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district.

Leadership: Staff development that improves the learning of all students requires skillful school and district leaders who guide continuous instructional improvement.

Resources: Staff development that improves the learning of all students requires resources to support adult learning and collaboration.

Process Standards

Data-Driven: Staff development that improves the learning of all students uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement.

Evaluation: Staff development that improves the learning of all students uses multiple sources of information to guide improvement and demonstrate its impact.

Research: Staff development that improves the learning of all students prepares educators to apply research to decision making.

Design: Staff development that improves the learning of all students uses learning strategies appropriate to the intended goal.

Learning: Staff development that improves the learning of all students applies knowledge about human learning and change.

Collaboration: Staff development that improves the learning of all students provides educators with knowledge and skills in collaboration.

Content Standards

Equity: Staff development that improves the learning of all students prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments, and hold high expectations for their academic achievement.

Quality Teaching: Staff development that improves the learning of all students deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately.

Family Involvement: Staff development that improves the learning of all students provides educators with the knowledge and skills to involve families and other stakeholders appropriately.

As research in the field of staff development matures and information about best practices and research-supported professional learning strategies is more widely available and commonly implemented, more staff development departments will routinely incorporate NSDC's standards into their work. In reviewing the programs selected for inclusion, it is evident that all programs address the process standards to some degree. No attempt was made to determine if sites in which programs were implemented met the context standards or if the programs themselves specifically addressed the content standards of family involvement. This level of analysis was beyond the scope of this project, although the success of the programs in increasing student achievement suggests that all standards, including those not specifically considered, were addressed.

The primary standards considered in reviewing the programs in relationship to "Criterion Two: Well-defined Staff Development Program" were the six process standards. All programs demonstrated evidence of stringent evaluation, designs that use multiple learning strategies, learning that integrates knowledge about human learning and change, effective use of data to determine priorities for adult and student learning, and collaboration among adult learners. Among the programs, some do a better job of addressing the process standards than others. Some are stronger in implementing varied learning designs than others. Some use data and assist teachers to learn how to use student achievement data better than others. Regardless of these differences, all programs address the process standards.

In addition to process standards, all programs selected address the content standard of quality teaching. Quality teaching refers to teachers' content knowledge, content-specific pedagogy, and meeting content area standards. To be selected for inclusion, programs demonstrated that they focused on increasing teachers' subject-specific understanding and expanded their repertoire of content-specific instructional strategies. All programs are also aligned with national content standards for their respective disciplines.

Quality teaching refers to teachers' content knowledge, content-specific pedagogy, and meeting content area standards.

The second criterion eliminated a number of curriculum development or implementation projects. Because the focus of the study was staff development, curriculum programs without structured staff development were not considered. For many curriculum implementation programs, the staff development is uneven and depends on the implementing district's decisions regarding the amount and type of professional development provided to teachers with the new curriculum implementations. Even though intensive professional development is often necessary for successful implementation of new curricula, very often the staff development continues to be episodic, shallow, and focused more on using the curriculum resources and less on developing teachers' content knowledge and content-specific pedagogical processes.

Criterion Three: Designed to increase teachers' content knowledge and/or content-specific pedagogical skills.

Staff development for the past 20 years has focused almost exclusively on developing more general pedagogical processes. Teachers often find it difficult to apply general processes to subject areas without specific support for adapting the strategies to various curricular areas. While many programs in cooperative learning, learning approaches, and instructional processes have enriched teachers' pedagogical processes, they have not specifically extended teachers' content knowledge of their disciplines.

This criterion eliminated the second largest group of programs considered. The focus of the Results-Based Staff Development for Elementary Schools initiative was content-specific staff development in language arts and literacy, mathematics, science, social studies, and interdisciplinary studies. Content-specific staff development is essential to assist teachers in deepening their understanding of their discipline and in increasing their ability to teach their discipline to students who have increasingly diverse learning modes and characteristics. Efforts in staff development that are focused on instructional processes or management strategies and are devoid of content have been less effective in improving student learning (Wenglinski, 2000). Therefore, a shift in thinking in staff development has occurred in recent years. Shulman (1987) suggested that teachers need three kinds of knowledge: knowledge about their content area; knowledge about pedagogical strategies; and knowledge about content-specific pedagogical processes. Shifting the focus of staff development to the content that students are expected to learn changes both the content and the nature of staff development. Teachers' knowledge is one of the keys to success – an element of a school's capacity to produce results for students (Newmann, King, & Youngs, 2000).

Deepening teachers' content knowledge and expanding teachers' content-specific instructional strategies are essential if students are to reach high standards. Teachers with deep conceptual understanding of their discipline are able to design instruction to accommodate various learning characteristics of their students because they "take learning apart" for students and assist students in constructing meaning. Teachers with deep content knowledge can understand the misconceptions that often prevent their students from grasping advanced concepts. Teachers with extensive knowledge of their discipline and how to teach it to a variety of learners can teach any student and welcome the opportunity to do so.

The third criterion allowed panel members to take a unique look at staff development. Since most staff development efforts have focused on general instructional processes, this criterion underscored the importance of tailoring staff development to help teachers address the new content standards. It makes sense and produces results for students if school and district leaders (1) maintain close alignment among what students are expected to know and do, as established in content standards; (2) create an assessment and accountability system that holds students, schools, and teachers responsible for student success; and (3) establish a professional development system that supports teachers' ongoing professional learning in areas related to student learning goals.

... this criterion underscored the importance of tailoring staff development to help teachers address the new content standards.

Criterion Four: Occurs at multiple schools or within district, state, or regional areas.

The fourth criterion used by the National Advisory Panel is that the selected programs are current and ongoing at multiple schools, districts, regions, or states. This criterion also eliminated a number of individual school efforts to improve student performance. The National Advisory Panel's goal was to identify model programs that other schools or districts might replicate, adapt, or use as models. Recognizing that unique conditions or factors at individual sites (such as an exceptional school leader or a particularly dedicated staff) may often be the source of a program's success, the panel looked for programs that had been implemented at a number of schools to reduce the "site-effect." While the scope of this work did not allow a study of the contextual characteristics that made each of the programs successful, the National Advisory

Panel acknowledges that contextual factors within schools and school districts contribute significantly to a program's potential for success. Simply put, what works in one place may not work in another because the environment may be completely different.

Many locally developed programs have been enormously successful in improving student achievement. However, successful replication across sites suggests that a program's accomplishments are less dependent on the characteristics of an individual school and more related to the design of the staff development effort. Most programs included in this guide have a national- or state-level scope, although several district efforts are also included.

Identifying Programs

The National Advisory Panel determined that the criteria previously used to select content-specific programs for inclusion in What Works in the Middle: Results-Based Staff Development (Killion, 1999) were still relevant for selection of the elementary school staff development programs. They acknowledged that elementary schools do differ from middle and high schools in several critical ways; yet they recognized that standards for high-quality staff development do not differ across grade or school levels.

They acknowledged that ... standards for high-quality staff development do not differ across grade or school levels.

To solicit program nominations, an extensive "call for programs" — posted on web sites, published in professional journals, announced at state and national conferences, and shared by word-of-mouth — brought responses, and with the assistance of a large contingency of supporters, a number of programs were eventually identified. Programs with potential for inclusion emerged as the panel members considered programs from their own content areas, presented at conferences, shared information about this work within their professional circles, and used their professional networks to invite nominations for this guide.

The most challenging component of this work is the solicitation process. Until just days before publication, new programs were coming to the attention of the project director. Several times, well-known, nationally recognized programs with proven success were contacted and invited to submit a nomination. For various reasons, e.g., time pressures, difficulties in reaching the person responsible for such decisions, inability to collect the evidence of student achievement, or uncertainty about the perceived benefit of being included in this guide, not all program staffs responded.

Because of problems such as these, the programs listed here represent only a small portion of the highly successful programs available. First, many programs simply did not come to the attention of the National Advisory Panel despite the enormous effort to disseminate information about this work. Second, many single-site programs were not considered. These programs may have potential for replication and have not yet been replicated.

Reviewing Programs

Programs underwent two levels of review. The project director conducted the first-level review. After a nomination for a program was received, the project director reviewed all the documentation submitted. If a preliminary review revealed that sufficient evidence was available to demonstrate that all criteria were met, the program qualified for more intensive review. A program summary sheet was compiled to highlight key aspects of the program. This summa-

ry sheet was used in the next level of review.

The second-level review was conducted by the National Advisory Panel content-area review teams. If a program met all four criteria, it was then sent to the appropriate content-area review team, a subcommittee of the National Advisory Panel. The review teams were people with expertise in a core content area and representatives of the professional associations for each discipline. For example, the mathematics review team included two representatives from the National Council for Teachers of Mathematics and two representatives from the National Education Association. Each content-area review team included three or four representatives. Review team members could recommend including the program, seeking additional information, or eliminating the program. In almost every case, the questions that arose or the reasons for elimination related to the lack of evidence of student achievement. Sometimes additional information was needed. The project director contacted the developer to request the necessary information. The project director then determined if the information was sufficient to answer the questions of the reviewers. When the question had been addressed, new information was circulated to reviewers before a final decision was made.

This review process has increased the likelihood that the programs included in this guide are examples of content-specific elementary school staff development programs that have increased student achievement and that can be replicated, adapted, or used as models for designing professional development. Of course, having completed the review process does not guarantee that these programs will be successful for every school. It does, however, suggest that based on the information available to reviewers, these programs have the potential to improve teachers' content knowledge, content-specific pedagogical processes, and student achievement if programs are selected and implemented appropriately.

Based on the information available to reviewers, these programs have the potential to improve teachers' content knowledge, content-specific pedagogical processes, and student achievement if programs are selected and implemented appropriately.

References

Killion, J. (1999). What works in the middle: Results-based staff development. Oxford, OH: National Staff Development Council.

Killion, J. (2002). Assessing impact: evaluating staff development. Oxford, OH: National Staff Development Council.

National Staff Development Council. (2001). NSDC's standards for staff development, revised. Oxford, OH: author.

Newmann, F., King, B., & Youngs, P. (2000, April). Professional development that addresses school capacity. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57, 1-22.

Wenglinski, H. (2000). How teaching matters: Bringing the classroom back into discussions of teacher quality. Princeton, NJ: Milken Family Foundation and Educational Testing Service.

CHAPTER 4

Reading the Program Descriptions

Each of the 32 programs that met the National Advisory Panel's rigorous criteria is described in the next five chapters. Chapter 5 describes the language arts/literacy programs; Chapter 6 includes math; Chapter 7 is science; Chapter 8 is social studies; and Chapter 9 includes the interdisciplinary projects. Each chapter begins with a table of contents to introduce the titles of the programs. Although some programs included in the content-area chapters could be interdisciplinary in nature, they were included in the content-area chapters because of their strong focus on a particular content area. The descriptions are consistent in format and provide a variety of information to help staff development leaders learn about each program and understand how each meets the criteria for inclusion in What Works in the Elementary School: Results-Based Staff Development. Information includes:

Program Description

The program description provides an overview of the program. It describes key features of the program in a succinct format to help staff development decision makers understand how the program contributes to increased student achievement.

The content of the staff development program, what adults will know and will be able to do, is summarized for each program in the Content sidebar.

Program Context

This section identifies demographic characteristics of the school and district sites where the program has been successfully implemented. It provides information about the location of the schools and districts (rural, urban, suburban) and the student population.

Many programs included have been implemented in a wide variety of school and district contexts. Consequently, the context or site characteristics are less likely to be a predominant factor contributing to the program's success. The Context sidebar accompanying this section highlights some of the student and site characteristics associated with this program.

Staff Development Program

This section contains information about the design of the staff development program. It explains how the learning experience is structured, how much time is allocated to staff development, and how follow-up is provided.

Accompanying this section is a Process sidebar that highlights the key processes used throughout the learning experiences. For example, it identifies the various models of staff development incorporated and the follow-up included.

Intended Audience

The sidebar with this title identifies the staff and individuals who most often participate in the staff development program. Program developers, in some cases, identify the participants. Some programs are specifically designed for entire school faculties and may not be available to indi-

vidual teachers. Others are designed for teams or grade levels to use. Some are available to individual volunteer teachers.

The Bottom Line

This section provides a commentary on the program from the National Advisory Panel and project director. In addition, an icon is provided as a sidebar to this section. It visually presents an easy-to-interpret rating of the staff development component of each program.

NSDC Standards Rating

Programs were reviewed in light of the National Staff Development Council's Standards for Staff Development, Revised (2001), and specifically, the six process standards (data-driven, evaluation, research-based, design, learning, collaboration) and the content standard on quality teaching. All programs address these standards to a differing degree. By addressing these seven standards, programs received a four-star rating. As expected, all programs received the highest rating.

Evidence of Student Achievement

This section briefly describes the methodology and results of the study or studies conducted to demonstrate how staff development is related to student achievement. For those interested in evaluating staff development programs, this section will be most useful.

A Success Indicators sidebar contains the sources of evidence used to measure student achievement and, thus, indirectly to determine the effectiveness of the staff development program. Staff development decision makers will notice the variety of measurements used to assess student achievement such as standardized tests, criterion-referenced tests, program-specific tests, and so on.

Project Director/Key Contact Person

Information is provided to assist readers in contacting the program director for each of the selected programs. This summary of information includes a mailing address, phone and fax numbers, e-mail, and web site information, as applicable.

Sample Sites

This section includes elementary schools that have agreed to be identified as implementers of the program. For each school, a contact person and information about contacting him or her is listed. These people and schools have agreed to provide information to interested individuals or schools about how they are implementing the program.

Documentation

This section lists the articles, papers, and other sources of information used to determine each program's success. Other related articles and papers about a program may be cited here.

Content Area Standards

A matrix that includes which national content standards each program addresses appears at the end of each content area section. The content standards used are those published by the professional associations represented on the National Advisory Panel. They include:

- National Council of Teachers of English
- National Council of Teachers of Mathematics
- National Council for the Social Studies
- National Science Teachers Association

Program directors for each program determined the content standards their programs address. Most program directors indicated that their programs address a majority of the standards; however, the depth to which the standards are addressed varies. Some standards may be given more attention than others are. For a few programs, in fact, it is not possible to specify which content standards are addressed since teachers have the discretion to select the specific content standards they focus on throughout the staff development program.

It is important that the reader understand what this guide IS and IS NOT.

This guide is a compilation of 32 outstanding staff development programs in the core content areas. It is not a comprehensive list of all staff development programs available for elementary school teachers. Hundreds of programs exist that have not been examined by the review teams for inclusion in this book. In general, the panel's search for programs uncovered more national programs and fewer that were developed by local school districts. Possibly, there are many undiscovered local programs that could meet the rigorous review criteria. Identifying programs and getting complete information were two of the most challenging aspects of this initiative. Even as late as a few weeks before publication, programs continued to surface.

The guide reports the results of 32 staff development programs. The programs included in the guide are not, however, endorsed by the National Staff Development Council, the National Education Association, or any of the contributing associations. The guide reports program results. The information used to select the programs was supplied primarily by the developers. Some programs offered third-party evaluations. Others had received recognition from other associations or had been selected for inclusion in the National Diffusion Network. The review of the work was primarily dependent on paper documentation. The Advisory Panel did not conduct an evaluation of each program or make individual site visits to study each program and school. Although the assumption is made that all information included is accurate and based on ethical evaluation practices, readers are urged to conduct their own careful analysis before adopting any program included.

The guide is a catalog for ideas. It is not a catalog for shopping. It is always possible that a school could misuse this guide and adopt a program for implementation without thorough analysis and study. To use this guide responsibly, school teams or staff development leaders must complete a preliminary analysis of what is needed and how best to meet the needs of students, educators, and each school's community. After this preliminary study is complete, the guide can provide suggestions and guidance for adopting, adapting, or designing successful staff development.

The guide identifies common characteristics of the programs. It is not, however, a meta-analysis of the programs included. The guide identifies common characteristics of programs and patterns of effectiveness across programs. It does not provide a statistical comparison across programs or an analysis of effect sizes.

The guide is a description of what staff development is and has been. It is not necessarily a picture of what staff development should be. Many of the programs included here are based on the training model of staff development. While training as a model of staff development is efficient and often quite effective, it is just one model of learning for adults. A need exists to better understand and incorporate other models. As new information emerges from practice and research, staff development processes and content will evolve and improve.

The guide describes programs currently used at specific elementary schools as examples. It is not a list of exemplary elementary schools. The program developers recommended the schools listed as implementation sites for each of the programs. All have given their permission to be included as schools where the staff development programs have been implemented. Further, they have offered to share information about their involvement with others. Panel members did not visit each school, however. Evidence of success derives from program evaluations and represents the success of the program across multiple schools.

Those involved with the initiative believe that the information within this resource guide will be useful to all its potential audiences. The guide should assist those who make decisions about staff development to become more aware of the critical nature of their decisions and the need to use the information contained here in a responsible manner. Suggestions for making those decisions are provided in Chapter 11, "How to Use This Guide."

References

National Staff Development Council. (2001). National Staff Development Council's standards for staff development, revised. Oxford, OH: author.

WHAT WORKS

SECTION TWO:

STAFF DEVELOPMENT PROGRAM DESCRIPTIONS

National Staff Development Council

National Education Association

CHAPTER 5

Language Arts Programs

Language Arts Staff Development Programs

Joanne Carlson, Professor Emerita, College of St. Mary, and Joellen Killion, What Works Project Director

The content area of language arts includes reading, writing, studying literature, speaking, listening, viewing, and visually representing. Each area is a form of language in use and is integral to students' success both in school and beyond. Programs selected for inclusion - and those nominated - focus on reading, writing, and language skills. More programs have been selected for inclusion in language arts than any other content area, signifying the vital nature of language arts as a foundation for learning and for success beyond school.

The largest number of projects in the language arts section are specifically designed for early literacy. In a position paper in 1998, the National Association for the Education of Young Children and the International Reading Association recognized that learning to read and write is critical to success in school and later life. In their combined statement, both organizations emphasized that the level to which a person progresses in reading and writing is one of the best predictors of whether he/she will function competently in school and contribute actively in society. They emphasized the urgency of teaching young children to read and write competently to enable them to achieve high standards of literacy and stressed the challenge of teaching children of increasingly diverse abilities. The paper pointed out that given inadequate policies and resources, early programs have resulted in inappropriate teaching practices and poorly qualified preschool and primary level teachers.

Productive concepts in early programs identify reading aloud to children, exposure to and concepts of print, the alphabetic principle, linguistic and phonemic awareness, systematic code instruction, meaningful connected reading, vocabulary development, and accurate assessment as essential components of effective programs. The National Advisory Panel Literacy Review Committee also recognized necessary interrelationships among parents, community agencies and programs, and schools as significant. The programs identified within this section included all or most of the content that the team found desirable and are staff development programs that ensured that appropriate early literacy instruction was implemented.

What is remarkable about these 16 projects is their attention to models of professional development that go well beyond training. Many of the projects in this section are based on teacher leadership models and include considerable job-embedded professional development in which teachers collaborate with one another, receive coaching, plan lessons, discuss student work and progress, engage in action research and study groups, and develop school leadership teams focused on improving literacy instruction schoolwide. The professional development for many of these programs builds a school's capacity to sustain change by developing teacher leaders who serve as in-house professional development specialists to guide the learning of their colleagues and to depend less over time on outside experts to solve the school's problems. Many of these projects are sustained over a long period of time, up to five years, to acknowledge that change in teachers' content knowledge and classroom practice takes time and practice. These projects build teachers' understanding of how to assess students' progress and how to apply that knowledge in designing classroom curriculum. Many of these projects recognize the importance of teachers developing a deep understanding of how children learn and how children learn to read, write, and use language as the best intervention to improving student academic success. This knowledge gives teachers the freedom to incorporate those strategies that are most appropriate for their diverse learners. Few of the 16 projects depend on prescriptive models of instruction that remove instructional decisions from the hands of teachers.

The programs selected for inclusion in this section have potential for replication and adaptation. Many have been extensively replicated with tremendous success. These programs, when coupled with a balanced course of study consistent with national language arts standards published by the National Council of Teachers of English and the International Reading Association, will lead to increased student achievement. The dynamic nature of the professional development that many of these projects incorporate can and should serve as a model for developing other professional development programs in language arts and in other content areas.

Achievement First

Program Description

CONTENT

- Reading
- Writing
- Instructional leadership
- Instructional strategies
- Standards-based instruction

Achievement First, a three-year whole-school reform initiative supported by The Fund for Educational Excellence, builds on five "essentials" for successful schools: primary focus on literacy; principals as instructional leaders; instruction driven by standards and student work; on-site professional development in literacy to improve instructional quality; and family and community partnerships. The program in Baltimore Public Schools is a research-based initiative designed to support teachers and administrators in schools serving large population of high-poverty students to become more effective in teaching and leading.

The initiative ensures that teachers are well-prepared to teach literacy, that students have the resources and support necessary to increase reading and writing performance, that the daily schedule provides uninterrupted time for student learning; that the curriculum and instruction is standards-based, that principals serve as instructional leaders; that teachers meet regularly to discuss student work and progress, and that continuous school improvement maintains the focus on improving literacy.

In addition to supporting teachers and principals, the initiative provides support to the parents and community by expanding parents' involvement in their children's literacy education, increasing family resources to reinforce literacy at home, and marshalling community resources to support the school's efforts.

Program Context

CONTEXT

- High-poverty schools
- Low-achieving schools
- Large urban schools

Achievement First serves 39 schools in Baltimore City Public Schools, nearly one-third of all the city's elementary schools. Students in Achievement First schools are both ethnically and economically diverse. Schools participating in the program are some of the city's largest, poorest, and lowest achieving schools. The 10 newest schools to join the program are schools deemed reconstitution-eligible.

Staff Development Program

Achievement First's primary strategy is to provide both teachers and principals with high-quality professional development and ongoing support. It is designed to help teachers become effective classroom facilitators and principals, instructional leaders.

Site-based professional development for teachers consists of frequent and sustained opportunities to learn. The Professional Developer works with teachers in their classrooms two days a week to improve literacy instruction by observing, coaching, and providing feedback. A Master Teacher, released from all administrative and teaching duties, works closely with the Professional Developer to support teachers. Teachers focus intensely on learning and implementing one to two key literacy strategies per year, observe each other, and engage in school-based professional development in literacy. Grade level teams meet weekly to extend their understanding of how students perform; they also plan lessons that align with student learning needs.

Principals receive weekly support from an Education Coach who assists them in developing instructional leadership skills, supporting change, and focusing improvement efforts. Principals spend time daily observing teachers, providing feedback, and conducting model lessons.

Beyond the school level, The Fund for Educational Excellence provides intensive summer institutes, national conferences, and opportunities for teachers and principals to network with others throughout the country who are engaged in similar reform efforts.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Mentoring

INTENDED AUDIENCE

- Entire school faculties

Language Arts

the BOTTOM LINE

☆ ☆ ☆ ☆

Achievement First is a schoolwide reform initiative that zeroes in on literacy as the foundation of students' academic success. Its innovative use of multiple school-based, job-embedded professional learning experiences provides support for teachers where it is most needed – in classrooms and schools. Built on successful models in New York's Community District Two and in Boston the program takes a comprehensive approach to improving students' academic success. Achievement First deepens teachers' content knowledge of literacy and helps them expand their instructional strategies; it supports principals in becoming instructional leaders; and it realigns school operations, practices, and structures to support educator and student success.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests

While in its early stages, Achievement First is showing promising results. In 2000, Achievement First schools' results on the Maryland School Performance Assessment Program composite index rose by an average of 6 points overall compared to increases for other Baltimore schools of 3.6 and the state of 2.0. For schools involved in the program for two years, scores increased by an average of 9 points. Several schools have doubled and tripled the number of students scoring at the satisfactory level since becoming Achievement First schools.

Student performance on the Comprehensive Test of Basic Skills (CTBS) is also increasing at significant levels. Schools that have participated in Achievement First since 1998 have slightly exceeded the city's average performance on the reading subtest of the CTBS.

Additionally, school culture is changing to support teachers and principals to become learners themselves. The focus on professional development and the time and resources to support it help teachers and principals break down the isolation, change their practice, and improve results for students.

Project Director

Bernice Alston
Director of Achievement First
Fund for Educational Excellence
800 North Charles Street
Baltimore, MD 21201


Phone: (410) 685-8300 x15


Fax: (410) 685-1911


E-mail: bernicep@ffee.org


Web site: www.ffee.org

Sample Sites

SITE #1

Lydia S. Foster
Bay Brook Elementary
4301 Tenth Street
Baltimore, MD 21225

phone: (410) 396-1357 or 396-1382
fax: (410) 396-8430
e-mail: Lfoster@bcps.k12.md.us
web site:
http://169.156.225.10/schools/124.shtml

SITE #2

Ruby M. Coleman
George Washington Elementary
800 Scott Street
Baltimore, MD 21230

phone: (410) 396-1445
fax: (410) 396-3392
e-mail: rcoleman@bcps.k12.md.us
web site:
http://169.156.225.10/schools/022.shtml

SITE #3

Patricia Burrell
Alexander Hamilton Elementary
300 Poplar Grove Street
Baltimore, MD 21216

phone: (410) 396-0521
fax: (410) 396-1803
e-mail: pburrell@bcps.k12.md.us
web site:
http://169.156.225.10/schools/145.shtml

SITE #4

Cecelia L. King
Fort Worthington Elementary
2701 East Oliver Street
Baltimore, MD 21213

phone: (410) 396-9161
fax: (410) 396-3641
e-mail: cking@bcps.k12.md.us
web site:
http://169.156.225.10/schools/085.shtml

SITE #5

Barbara Meyers
Furley Elementary
4633 Furley Avenue
Baltimore, MD 21206

phone: (410) 396-9094
fax: (410) 545-7844
e-mail: bmeyers@bcps.k12.md.us
web site: http://
169.156.225.10/schools/206.shtml

Documentation

The Fund for Educational Excellence. (2001). Annual Report, 1999-2000. Baltimore, MD: Author.

Carbo Reading Styles Program

Program Description

CONTENT

- Learning styles
- Diagnosing students' learning styles
- Implementing varied approaches to reading
- Recorded-book strategies
- Room redesign
- Designing hands-on materials
- Assisted reading methods
- Comprehension and vocabulary strategies
- Matching reading methods and students' strengths

The Carbo Reading Styles Program is based on the premise that when reading instruction matches rather than mismatches students' preferred styles of reading, their reading achievement and enjoyment of reading increase significantly. Therefore, no single approach to reading is best for all students. By using students' unique strengths and differences to minimize reading difficulties, teachers learn to accelerate the learning process.

Based on the Dunn and Dunn Model of Learning Styles, the Carbo Reading Styles Program assists teachers to learn how to diagnose students' strengths and to use them to enhance their teaching and learning. Teachers using the Carbo Reading Styles Program become masters of a wide range of reading strategies so that they can accommodate their students' varying reading styles.

The program depends on the use of key materials and strategies including the Reading Styles Inventory (RSI) and the Carbo Recorded-Book Method. The RSI provides a profile of students' strengths and weaknesses and offers guidance on which methods, strategies, and materials are best for each student. The program provides classroom libraries of leveled books and short stories recorded with the Carbo Method, accompanied by questions and games that practice vocabulary and comprehension skills.

Program Context

CONTEXT

- Title I
- Special education
- ELL
- Regular education
- Grades K-8

Carbo Reading Styles Program has been implemented in thousands of schools. The flexibility of the program makes it adaptable to nearly any school context and appropriate for any type of learner, including ELL, Title I, special education, underachieving, and ethnically and economically diverse student populations of students in grade 1 through middle school levels.

Staff Development Program

Initial implementation training for Carbo Reading Styles Program consists of a five-day training program that is preferably provided to an entire school staff. In the training teachers learn about the various learning styles, how to administer and interpret the Reading Styles Inventory, how to implement various instructional strategies to address students' learning styles, and how to use the Carbo Recorded-Book Method to support student learning. Other forms of technical assistance are available from the National Reading Styles Institute to support schools in reform efforts.

School or district reading styles facilitators who receive extended training provide support to teachers newly implementing the program. Other support is available through regional seminars, an annual national conference, a web site, and quarterly national newsletters.

In addition to the training, the National Reading Styles Institute uses the Degrees of Reading Styles Implementation Checklist to support implementation. The checklist can be used as a self-check or as a part of an outside evaluation of the program. It provides school faculty with information to measure their implementation of the program. High fidelity to the program characteristics increases the likelihood of increased student achievement.

the BOTTOM LINE

☆ ☆ ☆ ☆

The Carbo Reading Styles Program has demonstrated its impact on student achievement and especially with special education students. Its attention to diagnosing and building on students' learning strengths may contribute to its unique way to motivate students and help them be successful readers. It has been implemented successfully with a wide range of students and in diverse school communities. The staff development program offers intensive up-front professional development and an array of follow-up support structures to assist teachers and schools with implementation.

PROCESS

- Brief lecture
- Analysis of classroom videos
- Small group techniques
- Case studies
- Classroom demonstration
- Practice of strategies
- Grade-level planning
- Self-evaluation
- Self-analysis of style

INTENDED AUDIENCE

- Individual teachers
- Grade level teams
- Entire school faculties
- Teachers of special populations

SUCCESS INDICATORS

- Standardized reading tests
- Criterion-referenced tests
- Parent surveys

Evidence of Student Achievement

Multiple studies have substantiated the effectiveness of the Carbo Reading Styles Program. Pre- and post-test studies indicate that students' reading performance, as measured on standardized achievement tests such as SAT 9, CTB Terra Nova, or Gates-MacGinite Reading Test, increases significantly when students' teachers apply the Reading Styles Program. Student performance on state assessments also demonstrates substantial increases in states such as Texas and Maryland. A controlled comparative study of the Carbo Reading Styles Program with other extant site programs used in regular reading instruction in grades 1-6 in six districts in six states was conducted. Carbo Reading Styles Program, when implemented with high fidelity to the program design, produced positive results in 39 of 45 subtests.

In a number of doctoral studies of student achievement in reading related to the implementation of Carbo Reading Styles Program, students in all elementary grades, special education students, and students of poverty and at risk for failure demonstrated significant gains from pre- to post-tests. These studies were conducted throughout the United States in the last decade.

Project Director

Marie Carbo
Director
Carbo Reading Styles Institute
P.O. Box 737
Syosset, NY 11791


Phone: (516) 921-5500


Fax: (516) 682-5093


E-mail: readingstyles@nrsi.com


Web site: www.nrsi.com

Sample Sites

SITE #1

Nancy Sullivan
West Amory Elementary
Amory Separate School District
704 111th Street
Amory, MS 38821

phone: (662) 256-2601
fax: (662) 256-1643
e-mail: nsullivan@mde.k12.ms.us
web site: www.mde.k12.ms.us/superin.htm

SITE #2

Sherry Gorsuch
O'Connor Magnet School
Victoria Independent School District
3402 Bobolink
Victoria, TX 77901

phone: (361) 788-9572
fax: (361) 788-9575
e-mail: sherry.gorsuch@visd.com
web site:
www.visd.com/campuses/magnet/oconnor/home.htm

SITE #3

Beth Jackson
Neshoba Central Elementary
1002 St. Francis Drive
Philadelphia, MS 39350

phone: (601) 656-2182
fax: (601) 656-9922
e-mail: bjackson@neshoba.k12.ms.us
web site: www.neshobacentral.com

SITE #4

Paula Hill
Gilmer Intermediate School
Gilmer Independent School District
P.O. Box 40
Gilmer, TX 75644

phone: (903) 797-2031
fax: (903) 843-4754
e-mail: phill@gilmerisd.org
web site: www.gilmerisd.net

SITE #5

Theresa Grady
The Webster School
St. Johns County Schools
420 North Orange Street
St. Augustine, FL 32092

phone: (904) 824-2955
fax: (904) 829-5958
e-mail: gradyt@mail-ws.stjohns.k12.fl.us
web site: www.webster.stjohns.k12.fl.us

Documentation

Barber, L., Carbo, M., & Thomasson, R. (1998). A comparative study of the reading styles program to extant programs of teaching reading. Bloomington, IN: Phi Delta Kappa.

Milken Family Foundation. (1999). Reading programs that work: A review of programs for pre-kindergarten to 4th grade. Santa Monica, CA: Author.

National Reading Styles Institute. (2000). Carbo Reading Styles Program: Research update. Syosset, NY: Author.

New England Comprehensive Center. (1999). A guide to research-based programs and practices for improving early literacy. Newton, MA: Education Development Center.

Skipper, B. (1997). Reading with style. American School Board Journal, 184(2), 36-37.

Comprehensive Reading Program Using Culyer Strategies in Reading

Program Description

CONTENT

- Instructional strategies
- Comprehension skills
- Language development
- Reading in the content areas
- Word identification skills
- Word recognition skills
- Vocabulary development
- Phonics

The Comprehensive Reading Program Using Culyer Strategies in Reading is designed to develop and implement reading strategies and schoolwide leadership efforts to improve students' reading achievement. Using a combination of whole faculty training and individual and grade level support meetings in combination with schoolwide program evaluation conferences, the program focuses on using data about student performance as measured by the Initial Reading Inventory, the Florida Comprehensive Achievement Test, and the SAT 9 to improve instruction and student learning.

The multi-year program emphasizes needs assessment, ongoing comprehensive planning, and teacher development. Teachers learn to integrate 23 components of the program that are essential to a schoolwide reading program. The strategies are compatible with any reading series, and the program also incorporates supplemental materials for implementing and organizing an effective program.

Program Context

CONTEXT

- Small community schools
- Rural schools
- Wide range of student abilities

Comprehensive Reading Program Using Culyer Strategies in Reading is being used in Polk County, Florida. One of the 50 largest school districts in the nation, this district serves predominantly rural and small communities. Fifteen schools are currently involved in the implementation phase of the program. Two previous phases of program implementation in the same district involved similar numbers of schools. Student populations are approximately one-third minority and two-thirds high poverty, with a mobility rate of 39%. Data indicate that students in the primary grades are substantially deficient readers.

Staff Development Program

The staff development program centers on several key areas of reading development within a mastery teaching and learning and direct instruction framework. They include a wide range of teaching and comprehension strategies, language development, perceptual development, recreational reading, reading in the content areas, use of the Initial Reading Inventory, word identification, word recognition, vocabulary skills, and phonics.

PROCESS

- Needs assessment
- Planning
- Training
- Ongoing assessment

The staff development program consists of several components. A 16-day summer training focuses on developing the capacity to implement the program successfully via a Program Development Specialists (PDS) team, a school leadership team that includes the administrators and three to six teachers. Another component is training for the school instructional staff, including both teachers and paraprofessionals. These sessions are held throughout the school year before or after school, during planning periods, and on staff development days. A third component is small group and individual follow-up and assistance. This support is provided by the leadership team and might consist of demonstration lessons, observation, or consultation with one or more colleagues. Teachers also visit other schools to observe teachers who have effectively implemented the program at a particular grade level. Lastly, the program director works with each school twice a year and observes the PDS team members, consults with individuals or grade levels to discuss specific issues, and meets with PTA groups or school improvement teams to keep them informed about the school's progress.

INTENDED AUDIENCE

- Entire school faculties

the BOTTOM LINE

☆ ☆ ☆ ☆

Comprehensive Reading Program Using Culyer Strategies in Reading has demonstrated improved student reading performance with student gain scores averaging more than one year for each school year. The program uses mastery teaching and learning and direct instruction to develop students' reading skills. As teachers gain more instructional strategies for teaching reading and understand more about how students learn to read, they have greater flexibility to apply appropriate strategies in their classrooms. A notable feature of this program is its strong positive impact on students in grades 4 and 5, for whom there are typically a limited number of interventions.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Initial Reading Inventories

On the Florida Comprehensive Achievement Test (FCAT), the 15 schools implementing the Culyer Reading Strategies demonstrated an average increase of 15 points, indicating the percentage of 4th grade students scoring Level Two or higher. In comparison, the state's average increased by nine points. Using the Initial Reading Inventory, validated in a study funded by Polk County Schools as a valid measure of reading performance, indications are that students in grades 2-5 whose teachers implemented the Culyer Reading Strategies in 1998-99 improved 1.14 years as compared to their previous year's average growth of .70. The greatest gains occurred for students in grades 4 and 5. Gains in 1999-2000 implementation were similar indicating an average gain of 1.18 compared to students' previous gain of .84. Again the greatest gains happened in grades 4 and 5. Hispanic students averaged a .98 gain (almost one year) and Black students gained .85.

Using Florida's system of grading schools based on the schoolwide FCAT results in reading, writing, and mathematics, 14 of the 15 implementation sites increased their overall grade by at least one level, with six schools increasing their overall grade by two levels. One school improved its performance by three levels and was named one of five Exemplary Low Income Schools in Florida.

Project Director

Dale Fair
Co-chair and Former Chair Steering Committee
Babson Park Elementary School
815 North Scenic Highway
Babson Park, FL 33827

Phone: (863) 678-4668

Fax: (863) 678-4669

E-mail: DRFair@pcsb.k12.fl.us

Web site: n/a

Sample Sites

SITE #1
Gail Crum
Babson Park Elementary
815 North Scenic Highway
Babson Park, FL 33827

phone: (863) 678-4664
fax: (863) 678-4669
e-mail: gacrum@pcsb.k12.fl.us
web site: www.pcsb.k12.fl.us

SITE #2
Debbie Compton
Garden Grove Elementary
4599 Cypress Gardens Road
Winter Haven, FL 33884

phone: (863) 291-5396
fax: (863) 297-3061
e-mail: dlcompton@pcsb.k12.fl.us
web site: www.pcsb.k12.fl.us

SITE #3
Linda Weaver
Jesse Keen Elementary
815 Plateau Avenue
Lakeland, FL 33815

phone: (863) 499-2880
fax: (863) 413-2506
e-mail: lgweaver@pcsb.k12.fl.us
web site: www.pcsb.k12.fl.us

SITE #4
Freddie Combs
Garden Grove Elementary
4599 Cypress Gardens Road
Winter Haven, FL 33881

phone: (863) 291-5396
fax: (863) 297-3061
e-mail: fcombs@pcsb.k12.fl.us
web site: www.pcsb.k12.fl.us

SITE #5
Karen Kemp
Kathleen Elementary School
3515 Sherertz Road
Lakeland, FL 33810

phone: (863) 853-6030
fax: (863) 853-6033
e-mail: kbkemp@pcsb.k12.fl.us
web site: www.pcsb.k12.fl.us

Documentation

Culyer, R., & Culyer, G. (2000). How are the CSR schools doing?: Nineteen reports based on IRI data: Year two: 1999-2000. Polk County, FL: Authors.

Culyer, R., & Culyer, G. (2001). An analysis of IRI data of 16 Polk County schools, 1998-2000. Polk County, FL: Authors.

Hall, B., & Dailey, R. (1999). Validation of the Culyer Initial Reading Inventory (IRI) for use as a measure of reading performance. Polk County, FL: Polk County Schools.

Early Intervention in Reading

Program Description

CONTENT

- Comprehension strategies
- Word recognition
- Assessment
- Running records
- Phonemic awareness
- Guided writing
- Grade level routines
- Instructional coaching

Early Intervention in Reading (EIR) is a nine-month professional development program for teachers of grades K-4. Teachers learn intervention strategies for teaching struggling readers in grades 1-4 or emergent literacy in kindergarten. The program delivers a combination of 45 modules to participants via the Internet and monthly conference calls with an EIR trainer. The EIR program develops teachers' knowledge and skills to implement an instructionally sound, easy-to-use, small group intervention program for use with struggling readers.

The instructional program for students involves 20-30 minutes of supplemental instruction in addition to a strong core reading program. The concept of acceleration rather than remediation serves as the foundation for the program. Over the last 12 years the program has expanded from its initial use with 1st grade readers to reach students in grades K-4. The program includes a fast-paced short lesson on a three- to four-day routine in grades 1 and 2 and a five-day routine on grades 3-4. The program focuses on word recognition and comprehension instruction and includes phonemic awareness and understanding of the alphabetic principle in grades 1 and 2. Students in grades 3 and 4 receive additional support in decoding multisyllabic words, building fluency, and enhancing comprehension. All grades include higher level comprehension questions.

Program Context

CONTEXT

- Wide range of students
- Variety of schools

Early Intervention in Reading is used extensively in a wide variety of schools and with a wide variety of students. It has been successfully implemented in urban, suburban, and rural schools and with large populations of economically disadvantaged and low-achieving students and English language learners. Districts using EIR continue to use the program after the initial training year with continued results.

Staff Development Program

The professional development program focuses on developing teachers' knowledge and skill to help students become independent learners by coaching teachers to learn to use reading strategies and to apply reading strategies in their classrooms. The course of study begins with a half-day session in August or September in which the content knowledge related to emergent literacy abilities, phonics and decoding, fluency, and reading comprehension is presented. This session also includes information on the effective teaching of reading, reading interventions, and research behind the EIR program. This first session is available via the web, in a conference call, or face-to-face. The program requires that at least four teachers from a school participate simultaneously. Each school also has an EIR facilitator who works with the EIR trainer to ensure smooth implementation of the program.

The 45 web-based modules associated with EIR include a variety of topics associated with reading instruction such as comprehension strategies, word recognition, assessment, running records, phonemic awareness, guided writing, grade level routines, and instructional coaching. The modules utilize text as well as audio and video clips of effective instruction. In addition to the modules, the monthly conference calls involve teachers sharing five-minute video segments of themselves teaching. Demonstration lessons are available at the EIR web site (www.eireading.com).

PROCESS

- Web-based instruction
- Conference calls
- Coaching
- Demonstration teaching
- Training
- Observation

INTENDED AUDIENCE

- Entire school faculties
- Small teams of teachers
- Grade level teams

Language Arts

the BOTTOM LINE

☆ ☆ ☆ ☆

Early Intervention in Reading has evidence spanning 12 years to demonstrate that students increase their reading performance if they receive supplemental instruction from teachers who implement EIR intervention strategies in small groups for 20-30 minutes per day. For teachers who want to intervene and provide additional instruction to assist struggling readers, EIR seems to make sense for students in grades K-4. Its unique combination of support methods, including web-based, conference call, and face-to-face consultation takes advantage of new technologies for professional development. As a web-based program, EIR is accessible to a large number of teachers and schools and is widely applicable.

Evidence of Student Achievement

SUCCESS INDICATORS

- Program tests
- Standardized tests

Three studies of kindergartners demonstrated that EIR students outperformed control group students in phonemic awareness. Also in one study students who had EIR in kindergarten were found to have higher spring reading scores in grade 1 than other 1st grade students who did not participate in EIR.

In a 1st grade experimental study controlling for fall scores on the Gates-MacGinite Readiness Test, EIR students had significantly higher scores than control students on the spring Gates-MacGinite Reading Test. In three other 1st grade experimental studies similar results occurred. Those whose teachers received EIR training scored significantly better than control group students on program tests and standardized tests. In a study of EIR implementation in 72 schools and 2332 students across the years 1996-97 and 1999-2000, 72% of the students in EIR in 1st grade were reading on a primer or higher level in May.

In two experimental studies of 2nd grade students participating in EIR, students significantly outperformed control group students. In a study of 49 schools involving 1068 students between 1996-97 and 1999-2000, 85% of students participating in EIR in grade 2 were reading on a 2nd grade or higher reading level.

Grades 3 and 4 studies continue to demonstrate that students participating in EIR make significantly more growth in words correct per minutes during the year when compared to non-EIR students. Grade 4 students also demonstrated gains in comprehension. In a study of 20 schools involving 476 students across the years 1996-97 and 1999-2000, 94% of the students who had EIR in grades 3 or 4 were reading at grade level in May.

Project Director

Barbara Taylor
EIR Founder and Professor of Reading Education
University of Minnesota
WebEdCo
7701 York Avenue South, Suite 120
Edina, MN 55435


Phone: (952) 229-1441


Fax: (952) 229-1439


E-mail: intoewebedco.com


Web site: www.eireading.com

Sample Sites

SITE #1

Laura Morris
Shields Heights Elementary School
301 Southeast 38th Street
Oklahoma City, OK 73107

phone: (405) 634-3760
fax: (405) 636-5015
e-mail: lmorris@okcps.k12.ok.us
web site: www.okcps.k12.ok.us

SITE #2

Julie Fulton
Kamiah Joint School District No. 304
1102 Hill Street
Rt. 1, Box 720
Kamiah, ID 83536

phone: (208) 935-4012
fax: (208) 935-4014
e-mail: jfulton@kamiah.org
web site:
http://kamiah.org/main_Elementary.htm

SITE #3

Marcia E. Brown
Oxford Central School
17 Kent Street
Oxford, NJ 07863

phone: (908) 453-4101
fax: (908) 453-4011
e-mail: mkeb77@aol.com
web site: www.warrennet.oxford.org

SITE #4

Kelly Meade
Webster Open School
425 5th Street Northeast
Minneapolis, MN 55413

phone: (612) 668-0800
fax: (612) 668-0810
e-mail: kmeade@mpb.k12.mn.us
web site:
http://services.mpls.k12.mn.us/
schoolinfo/elementary_school.cfm

Documentation

Taylor, B. (1995, April). The Early Intervention in Reading Program: Results and issues spanning six years. Paper presented at the American Educational Research Association Annual Conference. San Francisco, CA.

Taylor, B. (2001) The Early Intervention in Reading Program (EIR): Research and development spanning twelve years. Edina, MN: WebEdCo.

Taylor, B., Hanson, B., Justice-Swanson, K., & Watts, S. (1997, November). Helping struggling readers: Linking small group intervention with cross-age tutoring. The Reading Teacher, 51(3), 196-208.

Taylor, B., Short, R., Frye, B., & Shearer, B. (1992, April). Classroom teachers prevent reading failure among low-achieving first-grade students. The Reading Teacher, 45(8), 592-597.

Taylor, B., Strait, J., & Medo, M. (1994). Early intervention in reading: Supplemental instruction for group of low-achieving students provided by first-grade teachers. In E. Hiebert and B. Taylor (Eds.), Getting reading right from the start: Effective early literacy intervention. Boston: Allyn & Bacon.

Early Literacy and Learning Model

Program Description

CONTENT

- Literacy standards
- Literacy instructional strategies
- Family and community involvement
- Phonemic and phonological awareness
- Letter and word recognition
- Concept development

The Early Literacy and Learning Model (ELLM), developed by the Florida Early Literacy and Learning Partnership, a collaborative of university faculty, businesses, and education practitioners, focuses on decreasing readiness gaps and improving literacy achievement among 4-, 5-, and 6-year-olds in selected urban childcare, pre-kindergarten, and kindergarten, and 1st grade classrooms in Jacksonville and Orlando, Florida.

The ELLM model incorporates five interdependent components: 1) a research- and standards-based early literacy curriculum and appropriate instructional strategies; 2) a research-based support infrastructure that includes a number of different kinds of collaborative teams (action research, coaching teams, and literacy teams; job-embedded coaching, ongoing researcher-/practitioner-inspired inquiry, instructional materials, family-use materials, and use of a data-based continuous improvement process; 3) a working partnership among practitioners, researchers, governmental agencies, and businesses that monitors progress toward the common goal; 4) a family involvement model that strives to assist teachers to develop and implement family involvement action and communication plans; and 5) technology-based instruction that emphasizes phonological awareness, letter recognition, mastery of basic print skills, and expanding oral and written language skills.

Program Context

CONTEXT

- High-poverty students
- Low-achieving students
- Urban centers and schools
- 89 sites
- Bilingual students
- Special education students

The Early Literacy and Learning Model is used in five Northeast Florida Counties, including Jacksonville, with children from predominantly high-poverty, low-achieving urban schools and centers that serve mostly African-American students and their families. The program is being implemented in 89 sites including faith-based childcare, Head Start, subsidized pre-kindergarten early intervention, pre-kindergarten handicapped special education and bilingual, kindergarten, and 1st grade classrooms. Begun in 1996, the program has served over 3100 students and their families and 200 teachers.

Staff Development Program

Through ELLM, teachers receive monthly literacy packs that include standards-based and learner-centered instructional activities and books associated with those activities. ELLM literacy coaches, the backbone of the staff development program, work with ELLM teachers weekly to develop targeted instructional strategies, use formal and informal data to shape instruction, link learning activities to ELLM literacy standards, and help solve teacher-identified literacy-related issues. Coaches provide feedback about teachers' instruction and help them apply research in their practice. Teachers learn and integrate a wide array of instructional strategies including read alouds with discussions; oral language and concept development; alphabet and word recognition; phonemic and phonological awareness; print awareness; and daily drawing, prewriting, and writing. The extensive support structure provides additional related professional development opportunities about literacy skills and instructional strategies and skills. Extended training for literacy coaches, action research, data-driven inquiry, and implementation support are provided through literacy facilitators. ELLM facilitators provide content development for literacy coaches, demonstration lessons, and coaching models.

Using the collaborative team approach that spans a number of different kinds of cross-organizational teams, ELLM teams are charged not only with carrying out specific tasks and responsibilities, but also with developing the expertise of members, their organizations, and the community through ongoing learning and professional development.

PROCESS

- Coaching
- Demonstration
- Job-embedded learning
- Instructional planning
- Curriculum development
- Resource material

INTENDED AUDIENCE

- Individual teachers
- Entire school faculties
- Teacher teams

Language Arts

the BOTTOM LINE

☆ ☆ ☆ ☆

Early Literacy and Learning Model provides the foundation for successful readers. Addressing the specific needs of high-poverty, low-achieving students, this program offers teachers support to provide literacy instruction. The staff development model depends largely on literacy coaches who work directly with teachers in their classrooms as they apply what they are learning and make adaptations to address the varied learning needs of their students. As a comprehensive program it is built on a community-wide partnership of community, university, and governmental agencies, businesses, and the school. It integrates family and community support, teacher professional development, appropriate resources to support student learning, teacher preparation, and data-driven continuous improvement.

SUCCESS INDICATORS

- Reading readiness tests
- Program-developed tests
- Teacher interviews

Evidence of Student Achievement

ELLM contributed to the improvement of children's reading readiness. Using non-random but equivalent group pre- and post-test design with a control setting, ELLM has enabled children to demonstrate significant gains in reading readiness when compared to both national norms and the control site on the TERA-2 and an alphabet recognition test. These results occurred for three cohort groups consisting of 4- and 5-year-olds in childcare; 5- and 6-year-olds in kindergarten; and 6- and 7-year-olds in 1st grade. Furthermore, the ELLM students represented high-needs urban students, and they performed in the national "average" category as defined by TERA-2.

ELLM students in the 4- to 5-year-old and 5- to 6-year-old cohorts demonstrated significant improvement in the alphabet recognition assessment, outperforming the national sample of kindergarteners tested as a part of America's Kindergarteners: Early Childhood Longitudinal Study (ECLS). Of ECLS students, 66% demonstrated reading proficiency while 81% of the ELLM kindergarten students and 56% of the ELLM pre-kindergarten demonstrated proficiency.

Teachers view themselves as learners and report increased confidence in their own reading skills, deeper understanding of reading instruction, more knowledge about reading resources, and greater appreciation for the strategies they are using.

Project Director

Janice Wood
Project Contact
Florida Institute of Education
University of North Florida
1200 Alumni Drive
Jacksonville, FL 32224


Phone: (904) 620-2496


Fax: (904) 620-2454


E-mail: jawood@unf.edu


Web site: www.unf.edu/dept/fie/ellm

Sample Sites

SITE #1

Jean L. Johnson
Jacksonville Urban League Head Start Program
8000 Arlington Expressway, Suite 600
Jacksonville, FL 32211

phone: (904) 721-9788
fax: (904) 721-7524
e-mail: jljohnson@suninternet.com
web site: n/a

SITE #2

Mary E. Freeland
Jacksonville Children's Commission
421 W. Church Street
Jacksonville, FL 32202

phone: (904) 630-3647
fax: (904) 630-4983
e-mail: Freeland@coj.net
web site: www.coj.net/jcc

SITE #3

Sylvia M. Johnson
West Jax Elementary School
2115 Commonwealth Avenue
Jacksonville, FL 32209

phone: (904) 630-6595
fax: (904) 630-6597
e-mail: johnsons@educationcentral.org
web site: n/a

SITE #4

Barbara Brigety
Duval County School District
1701 Prudential Drive
Jacksonville, FL 32207

phone: (904) 390-2803
fax: (904) 390-2614
e-mail: CA19@aol.com
web site: www.educationcentral.org

Documentation

Fountain, C., & Wood, J. (2000). Florida Early Literacy and Learning Model: A systemic approach to improving learning at all levels. Peabody Journal of Education, 75(3), 85-98.

Fountain, C., Cosgrove, M., Wiles, D., Wood, J. & Senterfitt, H. (2001). The Early Literacy and Learning Model (ELLM): A collaborative effort of the Florida Early Literacy and Learning Partnership. [On-line]. www.unf.edu/dept/fie/ellm.

Wood, J. A., & McLenore, B. (2001). Critical components in early literacy-knowledge of the letters of the alphabet and phonics instruction. Florida Reading Quarterly, 38(2), 14-18.

Early Literacy Initiative Project
(Southeastern Louisiana University)

Program Description

CONTENT
- Literacy development
- Instructional strategies
- Assessment

The Early Literacy Initiative Project at Southeastern Louisiana University is a professional development opportunity for teachers with a desire to increase student literacy achievement. It is designed to develop school teams to improve literacy education in grades K-3 and has been implemented in school districts in southeastern Louisiana. The goals of the project are threefold: 1) to develop and implement effective practices for literacy learning and teaching in grades K-3; 2) to develop and implement effective teams to impact the primary literacy program within a school and its district; and 3) to develop mentor teachers in the field who can support the elementary teacher education program of Southeastern Louisiana University, the program's home.

The Early Literacy Initiative Project provides training through a 10-day summer institute. The follow-up and support are conducted during the following academic year through 1) six additional days to meet as a learning community on the university campus; 2) on-site school visits to participants by the project site coordinator; and 3) electronic communications through e-mail, networking and course enhancement.

Program Context

CONTEXT
- Wide range of schools
- Wide range of students
- Primarily serving high-poverty students

The Early Literacy Initiative Project has served over 65 schools in 13 school districts in southeastern Louisiana. Rural, suburban, and urban schools have participated in the project. The majority of participating schools serve high-poverty students. Schools not qualifying for Title I have also participated. Replication of the Early Literacy Initiative Project was recognized by the Louisiana Department of Education during 1998 when it offered the project to school districts and regional service centers. As a result, the project was implemented in either a school or district in each of the eight service center regions in Louisiana.

Staff Development Program

The staff development program is a dual delivery system that includes a two-week Summer Institute and follow-up support throughout the academic year. During the 10-day Summer Institute teachers enhance their knowledge, skills, and dispositions regarding early literacy. Teachers are engaged in a variety of hands-on experiences, observe actual student-teacher demonstrations, view videotapes of effective teaching practices, analyze student work samples, and reflect on their instructional practices. The program addresses pedagogical knowledge (teaching), knowledge of the learner (assessment), and content knowledge (what teachers should know about early literacy).

The academic year follow-up consists of ongoing daily practice with on-site coaching and demonstrations offered by the site coordinator and additional days of meetings on the university campus. Teachers also spend one day attending and presenting at a professional conference.

The program is based on the National Staff Development Council's Standards for Staff Development, Revised. Principals and central office administrators learn about job-embedded practices during the Administrator's Day in the Summer Institute and through two additional administrators' meetings throughout the academic year. Job-embedded structures for learning include reflective journals, grade level networking, literacy management teams, action research, video critiques of teaching segments, analyzing student work, and study groups. The project site coordinator makes school visits to provide feedback to teachers, coach teachers, provide demonstration lessons, and work with school teams.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Analyzing student work samples
- Videotape analysis
- Journals
- Study groups
- Action research

INTENDED AUDIENCE

- Entire school faculties
- K – 3 faculties

Language Arts

the BOTTOM LINE

☆ ☆ ☆ ☆

The Early Literacy Initiative Project at Southeastern Louisiana University has demonstrated its impact on teachers' knowledge and instruction and on student achievement in literacy. The combination of extended training and intensive follow-up support that focuses on whole school reform as well as classroom reform seems to be the key to the program's success. While more evidence of how Early Literacy Initiative Project students progress in comparison to other students is needed, the evidence from pre- to post-tests indicates students are making substantial academic progress within the school year.

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests

Evidence of Student Achievement

Evidence of student achievement is gathered from the Developmental Reading Assessment (DRA) administered statewide as a part the Louisiana K-3 Reading and Mathematics Initiative and based on pre- and post-test analysis. Overall, the results indicate that 100% of the students in K-3 made literacy gains on one or more of the assessment measures. Approximately 70% made gains on two or more of the measures. The measures included letter identification, concepts about print, dictation/spelling, writing vocabulary, word identification, phonemic awareness, text reading and comprhension, and writing. Results indicated growth from the fall to the spring testing at all grade levels K-3 on all measures. No information is provided to compare the gains of students whose teachers participated in Early Literacy Initiative Project to those whose teachers did not.

Other data reveal that the lowest-progressing students, when compared with the average- or high-progressing students, consistently made the greatest gains in literacy achievement over a three-year period. 82% of the students identified as making the greatest gains were identified as the lowest progressing students. Students developed emergent reading and writing strategies earlier than teachers had previously experienced. For example, the majority of the kindergarten children knew 90% or more of the letters of the alphabet by mid-year. The 1st grade average test results in May indicated students were at, on, or above grade level for three project years from 1998-2002. From kindergarten through the end of 2nd grade, 80% or more of the students were reading on level or above at the end of the year.

Project Director

Cynthia Elliott
Director
Southeastern Louisiana University
SLU 12813
Hammond, LA 70402


Phone: (985) 549-5269


Fax: (985) 549-5009


E-mail: celliott@selu.edu


Web site:
selu.edu/Academics/Education/TEC/early.htm

Sample Sites

SITE #1

Linda D'Amico
Upper Pointe Coupee Elementary
4739 LA Hwy 419 West
Batchelor, LA 70715

phone: (225) 492-3139 or (225) 492-2555
fax: (225) 492-3138
e-mail: lindad@pcpsb.k12.la.us
web site: n/a

SITE #2

Barbara S. Davis
Northside Elementary
1090 Robbie Street
Denham Springs, LA 70726

phone: (225) 664-4223
fax: (225) 664-5660
e-mail: BDavis@lpsd.org
web site: LPSD.org

SITE #3

Gerard LeBlanc
Homedale Elementary
500 Maple Street
Harvey, LA 70058

phone: (504) 366-7258
fax: (504) 363-4262
e-mail: gal125@eatel.net
web site: http://homedale.jppss.k12.la.us

SITE #4

Ginger Daughdrill
Midway Elementary
P.O. Box 6
Natalbany, LA 70451

phone: (985) 345-2376
fax: (985) 345-3107
e-mail: gbd@mail.tangischools.org
web site: n/a

Documentation

Carlson, R. (2000). Case studies of rural schools implementing comprehensive school reform models. Austin, TX: Southwest Educational Development Laboratory.

Elliott, C. (2001, Spring). Action research: A job-embedded professional development opportunity. The Compass: New Directions in Learning, 5(2), 4.

Elliott, C., & Langlois, J. (2002). Successful method travels fast. Journal of Staff Development, 23(2), 40-43.

Exemplary Center for Reading Instruction

Program Description

CONTENT

- Word recognition skills
- Vocabulary
- Study skills
- Spelling and proofing skills
- Literature
- Literal, critical, interpretive, and creative comprehension
- Creative and expository writing
- Oral language

Exemplary Center for Reading Instruction (ECRI), begun in 1966, provides a research-based reading intervention program designed around a core professional development experience for teachers and companion resources for teachers, parents, and students. It has flexibility to be used as a classroom instructional program, an intervention program, or a tutorial program. The program, recognized as a Comprehensive School Reform Model, is a highly structured, direct instruction approach to teaching reading and language skills.

The program is designed to teach an integrated curriculum of phonics, vocabulary, oral and silent reading, comprehension, study skills, spelling, literature, and creative and expository writing. A minimum five-day professional development program designed to develop teachers' knowledge and skills in reading instruction is accompanied by required resource materials for teachers for training and subsequent reference, student mastery tests, and an instructional management system.

ECRI develops teachers' ability to teach reading and other language arts skills within the context of any subject area, utilize effective instructional strategies that prevent failure, and develop a management system that assists a school or district staff to rethink their instructional efforts and the structure of the school so that all students can learn.

Program Context

CONTEXT

- Rural, urban, and suburban schools
- Students with varied cultural backgrounds
- Students with varied ability levels
- In-classroom and after-school program

Exemplary Center for Reading Instruction's program has been used in virtually all types of schools and with all kinds of students. The program has been implemented in rural, suburban, and urban districts and schools, in a wide range of socioeconomic communities, and with a wide range of students including elementary through high school, regular education, special education, ESL/bilingual, and Title I students. Students with a wide range of cultural backgrounds have benefited from this program.

Staff Development Program

The Exemplary Center for Reading Instruction's staff development program is the core of the program's success. It includes a five-day training on teaching reading and language arts skills, using ECRI's direct instruction approach. The seminar includes techniques for reading and language arts instruction, effective scheduling of class time, and methods for diagnosing and correcting reading problems. During the seminar participants observe demonstrations, teach sample lessons, and pass proficiency tests on the use of new approaches. Teachers learn to use the extensive required resources to address individual student learning needs. Intermediate and advanced seminars also are available, although not required.

The training seminar integrates scripted "directives" teachers use to individualize their instruction. The instructional practices used in the ECRI program are fast-paced, highly interactive, and teacher-intensive. They depend on teachers' accurate application of the instructional approaches learned in their training.

The essence of the teacher training is helping teachers learn new instructional strategies through scripted directives and how to establish a high level of student mastery, maintain on-task behavior, and provide students with time for hands-on work and practice.

PROCESS

- Training
- Practice
- Demonstration
- Modeling
- Advanced training
- Resource materials

INTENDED AUDIENCE

- Entire school faculties
- Reading teachers
- Title I teachers
- Grade and department teams
- Tutors

the BOTTOM LINE

☆ ☆ ☆ ☆

Exemplary Center for Reading Instruction's program has a long-standing record of success for its reading and language arts instruction. The program combines intensive skill training with scripted instructional materials and has demonstrated its effect on improving student achievement. The strategies work well with a wide range of students and in a wide range of school and district contexts. ECRI is a supplemental program not intended to serve as a school's entire language arts program and must be integrated into a comprehensive language arts curriculum.

SUCCESS INDICATORS

- Various standardized reading tests

Evidence of Student Achievement

Extensive research over 20 years has documented the effectiveness of Exemplary Center for Reading Instruction's program. ECRI has proven successful with students from different socioeconomic levels, for different cultural groups and age levels, and for students with special learning needs. It received certification from the Joint Dissemination Review Panel in 1974 and 1985 and from the Professional Evaluation Panel in 1990 and had submitted documentation for review again in 1996, just before the Panel was disbanded. Both panels were federally supported review panels.

ECRI contributed to increases of 7.76 to 23.95 NCE gains for special education students. For Title I Students NCE score gains ranged from 7.099 to 25.66. In another study of students in grades 2–12, remedial reading students, who had previously demonstrated only a three-month gain for each school year, gained 17 months of achievement for a school year as measured by the Gates-MacGinite test of oral and silent reading, and 25 months in oral reading comprehension and spelling.

In grades 7–10 in another study, students demonstrated three years of statistically significant growth on the comprehension section of the Stanford Achievement Test. Students tested over a one-year period showed a median gain of 9.5 NCEs. Students tested over two years showed a median gain of 8.1. Students tested over three years showed a median gain of 7.85.

Project Director

Ethna Reid
Director
Reid Foundation
3310 South 2700 East
Salt Lake City, UT 84109


Phone: (801) 486-5083 or 278-2334


Fax: (801) 486-0561


E-mail: ereid@xmission.com


Web site: www.ecri.cc

Sample Sites

SITE #1

Ethna Reid, Principal
Reid School
2965 East 3435 South
Salt Lake City, UT 84109

phone: (801) 466-4214
fax: (801) 466-4214
e-mail: ereid@xmissions.com
web site: www.reidschool.com

SITE #2

Teresa d'Albora
School District of Indian River County
1990 25th Street
Vero Beach, FL 32960

phone: (772) 564-3000
fax: (772) 564-3077
web site: www.indian-river.k12.fl.us

SITE #3

Alicia Rios
Mims School
Mission Independent School District
1207 Bryce Drive
Mission, TX 78572

phone: (956) 580-5646
fax: (956) 580-5892
e-mail: arios2@imall.missioncisd.k12.tx.us
web site: missioncons.k12.tx.us

Documentation

American Federation of Teachers. (1998). Building on the best, learning from what works: Seven promising reading and English language arts programs. Washington, DC: Author.

American Federation of Teachers. (1999). Building on the best, learning from what works: Five promising remedial reading intervention programs. Washington, DC: Author.

Fashola, O., & Slavin, R. (1996). Effective and replicable programs for student placed at risk in elementary and middle schools. Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education.

Killion, J. (1999). Exemplary Center for Reading Instruction. In What works in the middle: Results-based staff development (pp. 46–49). Oxford, OH: National Staff Development Council.

Reid, E. (1986). Practicing effective instruction: The Exemplary Center for Reading Instruction approach. Exceptional Children, 52(6), 510–519.

Reid, E. (1997, Spring). Exemplary Center for Reading Instruction. Behavior and Social Issues, 7(1), 19–24.

Gateways to Literacy Project

Program Description

CONTENT
- Balanced literacy
- Assessment
- Data-driven instruction

In 1998, the Madison Metropolitan School District in Madison, Wisconsin, initiated a districtwide literacy initiative that included curriculum guidelines, a primary literacy assessment, and staff development for teachers. The initiative focuses on improving both reading and writing performance of students in grades K–3. The reading curriculum includes nine key elements: comprehension, concepts about print, fluency, high frequency words, literary appreciation, phonemic awareness, phonics, reading strategies, and vocabulary/concept development. The writing curriculum is based on the 6 + 1 Trait™ Writing Model.

The district offers staff development in many different forms. The Gateways to Literacy Project evolved as a result of research concerning effective staff development. The staff development associated with this initiative is intensive, ongoing, and school-based. It is designed to increase student achievement in literacy by helping primary grade teachers to increase their skills in assessing and analyzing student performance, use assessment to identify and plan next teaching steps, and provide a balanced literacy classroom program.

Program Context

CONTEXT
- Large school district
- Wide range of schools
- Wide range of students

Madison-Metropolitan School District in Madison, Wisconsin, serves a diverse population of approximately 25,000 students, over a third of whom are ethnically diverse. The district also serves a large number of economically and linguistically diverse students.

The Gateways to Literacy Project is in nine of the district's 30 elementary schools. School selection is based on student performance on standardized testing and staff interest. As schools complete the project, new schools are added. The project served 270 teaching staff directly and approximately 2800 students indirectly during the 2001–02 school year. In the 2002–03 school year, 10 schools will participate in the project.

Staff Development Program

The four core components of the Gateways to Literacy Project are staff development in balanced literacy, opportunities for informal problem-solving, opportunities to observe demonstration lessons and participate in team teaching, and opportunities for coaching interactions.

The Gateways to Literacy Project uses effective primary teachers who function as literacy coaches (project teachers) to promote best practices in literacy instruction. Project teachers are selected on the basis of their knowledge of learning theory, the reading and writing processes, and their primary literacy teaching experience. They participate in regular monthly team meetings in addition to 20 hours of initial training.

The program offers three 30-hour staff development courses over three years that address a wide spectrum of literacy instruction. Year One focuses on understanding and implementing the balanced literacy model; Year Two focuses on deepening teachers' understanding of literacy instruction and in-depth study of Mosaics of Thought; Year Three focuses on special features of literacy instruction that extend what teachers have previously learned.

Ongoing assessment of the program's implementation and impact on teachers, students and the school help provide information to program coordinators who make continuous improvements in the program.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Study groups

INTENDED AUDIENCE

- Entire school faculties

Language Arts

the BOTTOM LINE

☆ ☆ ☆ ☆

The Gateways to Literacy Project is a comprehensive approach to improving students' reading achievement that includes curriculum student assessment, and staff development. The extensive staff development provided to teachers gives them the content and pedagogical knowledge needed to improve student achievement. Through an extensive program evaluation, coordinators are able to assess the program's implementation and its impact on student achievement. As a long-term and broad-based effort, Gateways to Literacy Project is demonstrating that student achievement increases if teachers have opportunities to learn about balanced literacy and adequate support to implement new practices in their classrooms.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests

Schools implementing the Gateways to Literacy Project saw significant increases in student performance on the 3rd grade Wisconsin Reading Comprehension Test. Five schools have completed all three years of the project. All five of these schools increased the percentage of 3rd graders reading at proficient and advanced level. The increases range from 6% to 27% with three of the schools increasing 25% or more. All three of the schools currently in their second year of the project are showing improvements as well. These results are notable considering that most schools participating in the project are those with low student reading achievement. Even though participation in the project is voluntary, in 2001, 91% of the K–3 classroom teachers in project schools participated in the Gateways to Literacy Project.

Project Director

Mary Ramberg
Director of Teaching and Learning
Madison Metropolitan School District
Doyle Administration Building
545 West Dayton Street
Madison, WI 53703-1995


Phone: (608) 663-5217


Fax: (608) 442-0660


E-mail: mramberg@madison.k12.wi.us


Web site: www.madison.k12.wi.us

Sample Sites

SITE #1

Susan Hausler
Midvale Elementary School
502 Caromar Drive
Madison, WI 53711-1597

phone: (608) 204-6700
fax: (608) 204-0475
e-mail: shausler@madison.k12.wi.us
web site:
http://www.madison.k12.wi.us/midlinc/edindex.htm

SITE #2

Jan Rohde
Elvehjem Elementary School
5106 Academy Drive
Madison, WI 53716

phone: (608) 204-1402
fax: (608) 204-0396
e-mail: jrohde@madison.k12.wi.us
web site:
www.madison.k12.wi.us/elvehjem/details.htm

SITE #3

Patti Lucas
Falk Elementary School
6323 Woodington Way
Madison, WI 53711-3162

phone: (608) 204-2180
fax: (608) 204-0479
e-mail: pjlucas@madison.k12.wi.us
web site:
www.madison.k12.wi.us/011.htm

SITE #4

Susan Fink
Carl Sandburg Elementary School
4114 Donald Drive
Madison, WI 53704

phone: (608) 204-7940
fax: (608) 204-0491
e-mail: lkailin@madison.k12.wi.us
(school principal's e-mail address/
Linda Kailin)
web site:
www.madison.k12.wi.us/053.htm

SITE #5

Kristi Frankwicz
Hawthorne Elementary School
3344 Concord Avenue
Madison, WI 53714

phone: (608) 204-2551
fax: (608) 204-0423
e-mail: kfrankwicz@madison.k12.wi.us
web site:
www.madison.k12.wi.us/012.htm

Documentation

Esser, D., Gleason, C., & Lucas, P. (2001, August). Primary literacy notebook. Madison, WI: Madison Metropolitan School District.

Madison-Metropolitan School District. (1999, September). Primary literacy instruction focus on reading: Overview of key elements and primary classroom context. Madison, WI: Author.

Madison-Metropolitan School District. (1999, October). Primary literacy instruction focus on reading: Instructional components. Madison, WI: Author.

Junior Great Books

Program Description

CONTENT

- Shared inquiry
- Literary analysis and interpretation
- Critical and interpretive thinking skills
- Writing

Junior Great Books combines professional development, quality age-appropriate literature, and instructional strategies that teach students to discuss and analyze literature. Professional development for teachers centers on learning the shared inquiry process that engages students in reading, literary analysis, and critical thinking. Through shared inquiry in classroom discussions that develop their oral communication and thinking skills, students engage in investigations of authentic literature to find meaning in the piece of literature being discussed. Written and oral activities supplement the structured search for meaning and are applicable during every stage of the reading and writing process.

The staff development available for teachers helps teachers understand the shared inquiry process and develop the skills to conduct shared inquiry with their students. Coupled with the selections of literature available through the program, teachers gain strategies to assist students with text-centered critical thinking skills involved in the interpretation of literature. And, unlike many literature texts, Junior Great Books offers literature selections and activities rich enough to sustain students' interest in interpreting text in multiple ways.

Teachers' preparation for using the shared inquiry approach includes 10–12 hours of professional development. In addition, it is recommended that teachers prepare for using a particular text with students by engaging in collaborative discussion among themselves.

Program Context

CONTEXT

- Wide range of schools
- Wide range of student populations
- Supplement to or replacement of regular reading curriculum

Junior Great Books has been used extensively in all types of schools and with all types of students. Established in 1947, the Great Books Foundation is dedicated to promoting reading and discussion of excellent literature among adults and introduced a model for use with students in 1962. The program has been successfully used with urban students, English language learners, low-income students, students reading below grade level, gifted students, and regular education students.

Staff Development Program

Professional development includes an introductory two-day (10-12 hours) workshop, optional classroom consultation, and intermediate and advanced level workshops. Teachers are also encouraged to discuss texts together in preparation for using them with students.

The Shared Inquiry Leader Workshop (Level I) introduces teachers to the shared inquiry method of interpretive reading and discussion. The workshop features instruction, demonstration, modeling, and application of the strategies for discussion and for interpretive reading activities. Topics covered include how to generate and develop interpretive questions about text meaning, how to use follow-up questions to deepen discussion and interpretive activities, and how to use writing to assist with developing critical thinking.

Classroom consultation with Great Books instructors includes classroom demonstrations and modeling, co-teaching and coaching of teachers. Intermediate and advanced workshops (one or two days) cover topics such as strategic use of interpretive activities, writing, and assessment; they can be customized to meet teachers' needs.

Awareness sessions and facilitated planning sessions for new implementations are also available.

PROCESS

- Training
- Follow-up
- Classroom consultation
- Demonstration
- Modeling

INTENDED AUDIENCE

- Entire school faculties
- Departments
- Individual volunteer teachers
- Parent volunteers
- Support staff

the BOTTOM LINE

☆ ☆ ☆ ☆

Junior Great Book's long history of success, its flexibility to replace or supplement the traditional reading program, and its extensive replication make Junior Great Books a program to consider when seeking to improve students' critical and interpretive thinking skills using a text-based approach. The program integrates reading and writing with the study of rich literature and contributes to improving students' reading comprehension, vocabulary, writing, and critical thinking skills. Access to local trainers, use of engaging literature, flexibility of use, and its proven success contribute to the notoriety of this long-standing professional development program

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized reading and thinking assessments

Most of the studies about the success of Junior Great Books have been done with students in the middle and elementary grades. These studies indicate that students can support both orally and in writing their interpretations of text more frequently than students not participating in Junior Great Books, and that Junior Great Books students entertain more alternative interpretations of text, and comment on other students' ideas more frequently. These critical reading skills resulted in Junior Great Books students frequently scoring higher on tests of comprehension and critical and interpretive thinking. In addition, students score higher on reading vocabulary subtests of standardized reading tests than control group students. These results were consistent for students in urban and suburban settings. Students participating in Junior Great Books also outperformed students who were not using the program on state reading assessments.

Project Director

Margo Criscuola
Director of Research & Evaluation
The Great Books Foundations
35 East Wacker, Suite 2300
Chicago, IL 60601-2298


Phone: (800) 222-5870 x246


Fax: (312) 407-0334


E-mail: margo.cris@greatbooks.org


Web site: www.greatbooks.org

Sample Sites

SITE #1

Katie Spinos
Burlington Public Schools
123 Cambridge Street
Burlington, MA 01803

phone: (781) 270-1804
fax: (781) 270-1773
e-mail: spinos@burlington.mec.edu
web site: www.burlington.mec.edu

SITE #2

Elizabeth Kennedy
Morikami Park Elementary
6201 Morikami Park Road
Delray Beach, FL 33484

phone: (561) 865-3960
fax: (561) 865-3965
e-mail: kennedy_e@firn.edu
web site:
www.palmbeach.k12.us/morikamiparkes

SITE #3

Gandy A. Heaston
John C. Haines Elementary
247 West 23rd Place
Chicago, IL 60653

phone: (773) 534-9200
fax: (773) 534-9209
e-mail: gandyl.heaston@cps.k12.il.us
web site: www.cps.k12.il.us/schools

SITE #4

Wendy Hayes Ebright
GATE Office Long Beach Unified S. D.
1299 East 32nd Street
Long Beach, CA 90807

phone: (562) 426-9538
fax: (562) 426-6318
e-mail: whayes@lbusd.k12.ca.us
web site: www.lbusd.k12.ca.us

SITE #5

Linda Jo Galvan
Castleberry Independent School District
315 Churchill Road
Fort Worth, TX 76114

phone: (817) 252-2018
fax: (817) 738-1062
e-mail: galvanl@castleberryisd.net
web site: www.castleberryisd.net

Documentation

Kelly, J. (1996). Junior Great Books: A summary of program implementation and evaluation, 1995-1996, Castleberry Independent School District. Castleberry, TX: Castleberry Independent School District.

Killion, J. (1999). Junior Great Books. In What works in the middle: Results-based staff development (pp. 38–41). Oxford, OH: National Staff Development Council.

Lenz, L. (1997, November). School reform: Punching up reform. Catalyst: Voices of Chicago school reform, 1–10.

The Junior Great Books curriculum of interpretive reading, writing, submitted to the Program Effectiveness Panel for the National Diffusion Network of the U.S. Department of Education. (1992). Chicago: Junior Great Books.

The Learning Network

Program Description

CONTENT

- Literacy
- Literacy instruction
- Assessment and diagnosis
- Action plans
- Teacher leadership
- Instructional leadership

The Learning Network, a comprehensive school reform model, is a job-embedded school development program focused on improving classroom instruction particularly in reading and writing. By deepening teachers' and principals' understandings about teaching and learning in the classroom, the Learning Network's outside change agent, who works with the school over two years, builds the capacity of the school's staff to sustain instructional improvement and increase student achievement.

The Learning Network change agent works directly with the principal and a team of teachers in the school to build their understanding of teaching and learning in literacy. The goal is to develop consistent understandings and practices across all grade levels. By developing the capacity of school leaders and changing the culture of the school, the program is sustainable over time.

The Learning Network is based on three principles. The first is the use of a job-embedded structure of ongoing support and learning. The second is sound instructional practice that considers teaching and learning a cyclic activity in which assessment and evaluation drive planning and teaching. The third is student achievement, which usually goes beyond reading and writing in the Learning Network schools.

Program Context

CONTEXT

- 20 states
- 200 schools
- Wide range of students
- Rural, urban, and suburban schools

The Learning Network has been implemented in over 200 schools in 20 states since its pilot in the 1992-93 school year. Learning Network schools are present in urban, suburban, and rural communities, are predominantly elementary schools, with some middle school implementations, and serve students with a diversity of ethnic backgrounds, economic situations, and transience rates.

Staff Development Program

The Learning Network's staff development program is a two-year program directed by The Learning Network Coordinator, who comes to the school eight days per school year over two years. The coordinator develops the capacity of a key administrator and teacher leaders to serve as instructional coaches and leaders. In classrooms, the coordinator may provide demonstration lessons, assist with data collection, provide ongoing training, monitor student achievement, or hold instructional dialogues with teachers. The role of the coordinator is to transfer the instructional leadership responsibilities to the school's key administrator and teacher leaders.

The core of the staff development program is a cyclical process for developing reflective practice formalized in instructional dialogue. Through dialogue, teachers and the administrator describe their practice, identify underlying theories that drive it, assess alignment between practice and theory, and prepare and implement new actions. The Learning Network coordinator observes the implemented action and engages the teacher leader or principal in an instructional dialogue about his or her practice.

Years two and beyond involve teacher leaders implementing practices with their colleagues. The coordinator provides support in the second year by holding tiered dialogues with the teacher leaders about their work with teachers. The school staff uses the benchmarks, focused meetings, and formal reviews to assess their progress and develop policy statements to guide their collaborative work. The Learning Network provides annual conferences, summer institutes, continuing contact during the school year, and an internet-faxed listserv for members.

PROCESS

- Instructional dialogue
- Demonstration
- Coaching
- Modeling
- Reflective practice
- Collaborative analysis

INTENDED AUDIENCE

- Entire school faculties

Language Arts

the BOTTOM LINE

☆ ☆ ☆ ☆

The Learning Network focuses on improving teaching and learning and provides schools and their staff with the knowledge, skills, and will to improve student achievement. Consistent evidence of success from a wide variety of replications substantiates the program's success. Using the unique "expert within" and a teacher-to-teacher staff development model that builds the knowledge and skills of local teacher leaders and the key administrator, The Learning Network provides a foundation for ongoing school reform and a model of improving instruction in all content areas at all grade levels.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests

Students in schools that are implementing The Learning Network program have demonstrated significant improvement in their achievement. In a number of studies of individual schools implementing the program, all schools demonstrated significant growth. Montview Elementary in Aurora, Colorado, for example, received recognition as a U.S. Department of Education Model Professional Development Award Winner for its success in increasing student achievement, and specifically for closing the achievement gap. At Prairie Park Elementary School in Lawrence, Kansas, students in classrooms whose teachers were teacher leaders performed better than other students in that grade level. In classrooms where teachers had two or more years of support, students in grades 2, 3, and 4 performed substantially better when compared to students who had receivd only one year of support.

Other schools had similar results. In an elementary school in Arlee, Montana, in a quasi-experimental, comparative case study, students of the teacher receiving Learning Network support performed 14 points higher in language arts, 20 points higher in reading, and 24 points higher in vocabulary than students in another classroom on the Iowa Test of Basic Skills. On the Texas state assessment, students demonstrated significant gains for grades 4 and 5 during the three years they implemented The Learning Network program. Madison Elementary School District in Phoenix, Arizona, consistently outperformed the county, the state, and the nation on the Stanford 9 reading, language, and math subtests at all grade levels, 2-8 during their involvement with The Learning Network. And, all of this occurred during years in which the poverty rate in that area had increased substantially.

Project Director

Richard Owen
Project Director
Learning Network
Box 585
Katonah, NY 10536


Phone: (800) 262-0787


Fax: (914) 232-3977


E-mail: richardowen@rcowen.com


Web site: n/a

Sample Sites

SITE #1

Patricia Capps
Montview Elementary School
2055 Moline Street
Aurora, CO 80010

phone: (303) 364-8549
fax: (303) 326-1232
e-mail: pattyc@montview.aps.k12.co.us
web site: www.aps.k12.co.us/montview

SITE #2

Gloria Robertson
Ann J. Kellogg Elementary School
306 Champion Street
Battle Creek, MI 49017

phone: (616) 965-9773
fax: (616) 965-9780
e-mail: groberts@battle-creek.k12.mi.us
web site:
www.remc12.k12.mi.us/bcps/annj.htm

SITE #3

Chris Hoyos or Ruby Linscheid
Alderwood Elementary School
3400 Hollywood Avenue
Bellingham, WA 98225

phone: (360) 676-6404
fax: (360) 647-6896
e-mail: mpayne@bham.wednet.edu (principal)
web site: www.ald.bham.wednet.edu

SITE #4

Linda Kutach
Hutto Elementary School
100 Mager Lane
Hutto, TX 78634

phone: (512) 759-2094
fax: (512) 846-2152
e-mail: kutachl@hutto.txed.net
web site:
www.hutto.txed.net/Elementary/elem.htm

Documentation

Althorp, H., Weseman, P., Moses, P., & Herzog, M. (n.d.). A study of critical collegiality in one of The Learning Network schools. Aurora, CO: Mid-continent Research for Education and Learning.

Mid-Continent Research for Education and Learning. (2000). Classroom literacy practices in CSRD funded schools: Preliminary survey findings. Aurora, CO: Author.

Owen, R. (2001). The Learning Network. Katonah, NY: The Learning Network.

Literacy Collaborative

Program Description

CONTENT

- Literacy
- Student learning processes
- Literacy framework
- Working with adults
- Research and theory about literacy

The Literacy Collaborative, a comprehensive school reform model, is a broad-based cooperative effort designed to raise literacy achievement for all children across the elementary years. It works hand-in-hand with Reading Recovery by providing "good first teaching" using the framework for Early Literacy and Language Learning in grades K- 2. The collaborative provides long-term professional development and systematic support for teachers as they take on new instructional approaches and expand their skills.

The Literacy Collaborative, a partnership across a number of universities and school districts, assists teachers to raise student achievement in three ways. First, it provides a framework of lessons that build connections between reading and writing in a balanced literacy program. Second, the collaborative develops local capacity by training building-level literacy coordinators who become on-site professional developers for at least five years. The literacy coordinators assist primary grade staff members to develop their knowledge and skills in teaching literacy skills and strategies in a formal year-long staff development program. The literacy coordinators also provide demonstration lessons, facilitate study groups, assist with problem solving, and coach individual teachers. Third, the Literacy Collaborative requires that Reading Recovery be available for at-risk 1st grade students. The strategic problem solving taught during Reading Recovery lessons is also taught in the classroom, ensuring consistency in instructional approaches.

Program Context

CONTEXT

- Wide range of schools throughout the country
- Wide range of students
- Economically disadvantaged students

The Literacy Collaborative has been implemented in numerous schools and districts throughout the country. The program has been implemented in over 500 schools in grades K-2, mostly in mid-sized or large urban school districts with diverse ethnic and economic populations and is now expanding to include grades 3-6 in over 80 schools.

Staff Development Program

Implementation of the Literacy Collaborative works within a five-year time frame that reflects the Concerns-Based Adoption Model (CBAM) and the standards set forth by the National Staff Development Council. The five-year program includes professional development for both the literacy coordinator and the school staff. During the first year literacy coordinators participate in intensive year-long training designed to expand their knowledge and deepen their understanding of teaching young children and working with adult learners. Literacy coordinators-in-training accomplish these two goals by attending training sessions and by daily teaching of the literacy block. They learn to assess where children and adults are in their learning and how to design instruction to move children and adults forward. The school staff, on the other hand, receives awareness training and observes in the literacy coordinator's classroom.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Study groups
- Action research

In the second year, the literacy coordinators receive ongoing support and simultaneously provide training for their primary grade colleagues including teachers of ESL and special needs students. The literacy coordinators also organize and facilitate the school's Literacy Leadership Team. A school may expand Literacy Collaborative into grades 3-6 by training an intermediate grades literacy coordinator.

INTENDED AUDIENCE

- Entire school faculties

In years three through five, the literacy coordinators continue training teachers. Literacy coordinators also continue to receive specialized training and support in years three through five. Teachers strive to make children's learning seamless by integrating language arts instruction with content area instruction.

the BOTTOM LINE

☆ ☆ ☆ ☆

Literacy Collaborative is a comprehensive school reform program that begins with developing teachers' understanding of literacy, literacy learning, and student learning processes. As a model that builds the internal capacity of local teachers to sustain and continue change over time and to assume leadership roles in doing so, Literacy Collaborative recognizes the importance of long-term support to schools and a long-term commitment to increase the chance that the program will outlast implementation issues.

SUCCESS INDICATORS

- Reading tests
- Criterion-referenced tests
- Standardized tests

Evidence of Student Achievement

Nationwide, 51 of the more than 650 Literacy Collaborative schools had four or more years of longitudinal data at the end of the 2000-01 school year. Second grade cohorts from these schools showed an average of 6.8 NCE gains on the Gates-MacGinite Total Reading subtest, 4th edition. Thirty-nine of the 51 schools (78%) had increases ranging from 0.8 to 18.9 NCEs.

Other reported increases in student achievement occurred. In the annual site reports from schools participating in the project, the positive results are evident: student reading and writing skills in grades K-2 are increasing; skills students gain in grades K-2 serve as a firm foundation for grades 3-5; students with limited English proficiency are also benefiting from the Literacy Collaborative instructional strategies; teachers become better observers of students and their learning and use this information to make instructional decisions; and teachers interact with students differently in their classrooms.

Project Director

Andrea McCarrier
Project Director
Literacy Collaborative
The Ohio State University
200 Ramseyer Hall
29 West Woodruff Avenue
Columbus, OH 43120


Phone: (614) 292-1752


Fax: (614) 292-7547


E-mail: mccarrier.1@osu.edu


Web site: www.lcosu.org

Sample Sites

SITE #1

John Gibbons
Moseley Elementary School
25 Dartmouth Street
Westfield, MA 01085

phone: (413) 572-6360
fax: (413) 562-0796
e-mail: j.gibbons@mail.ci.westfield.ma.us
web site:
www.barnesairport.com/schools/moseley

SITE #2

Deborah Mayo
Hedges Elementary School
1716 Hedges Street
Mansfield, OH 44907

phone: (419) 525-6317
fax: (419) 525-6316
e-mail: DMayo.he@mansfield.k12.oh.us
web site: http://mcsmail.mansfield.k12.oh.us/hedges/index.html

SITE #3

Carla Frinsco
Pactolus Elementary School
3405 Yankee Hall Road 4
Greenville, NC 27834

phone: (252) 752-6941
fax: (252) 758-5817
e-mail: CarlaFrinsco@hotmail.com
web site:
http://schools.eastnet.ecu.edu/pitt/pactolus

SITE #4

Aliette Scharr
Hillcrest Elementary School
1010 East Concord Street
Orlando, FL 32803

phone: (407) 245-1770
fax: (407) 245-1779
e-mail: Scharra@ocps.net
web site:
www.Hillcrest.ocps.net

SITE #5

Donna Johnson
G.O. Bailey Elementary School
1430 Newton Drive
Tifton, GA 31794

phone: (229) 391-3767
fax: (229) 386-6540
e-mail: DGJohnson@tiftschools.com
web site: n/a

Documentation

Literacy Collaborative 1999 research report. (1999). Columbus, OH: Literacy Collaborative at The Ohio State University.

Literacy Collaborative 2000 research report. (2000). Columbus, OH: Literacy Collaborative at The Ohio State University.

Literacy Collaborative 2001 research report. (2001). Columbus, OH: Literacy Collaborative at The Ohio State University.

Lyons, C., & Pinnell, G. (2001). Systems for change in literacy education. Portsmouth, NH: Heinemann.

Williams, E. J. (2002, Winter). The Power of data utilization in bringing about systemic school change. Mid-Western Educational Researcher, 15(1), 4-10.

National Writing Project

Program Description

CONTENT

- Writing process
- Research-based strategies for writing
- Integration and application of writing in other disciplines
- Strategies for students with diverse learning needs
- Teacher leadership
- Professional development
- Writing instruction, K-16
- Methods of writing assessment

The National Writing Project, begun in 1974, is a nationally recognized professional development program dedicated to improving students' writing and learning in schools throughout the nation by developing teachers' ability to write, teach writing, and use writing as a learning tool in their classrooms.

The National Writing Project network includes 175 sites in 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. The NWP model used in these sites identifies successful teachers of writing, brings these teachers together in Invitational Summer Institutes, and prepares them to teach other teachers in workshops that the project conducts in schools throughout the year. The National Writing Project is based on the "turnkey" model of teacher development. Teachers come together to develop their own expertise, as well as their professional development expertise. They then provide professional learning experiences for their colleagues. The core number of teachers continuously expands as new teachers are invited to participate each summer in the summer institutes.

The National Writing Project taps what is known about writing and the teaching of writing from all sources: research findings, books and articles, and teachers' successful classroom practices. It integrates this knowledge with its strong tradition of developing teachers as writers and readers and teachers as teachers of writing to design the summer institutes and the ongoing support throughout the school year.

CONTEXT

- 50 states, Washington D.C., Puerto Rico, and the U.S. Virgin Islands
- 175 sites
- NWP local sites conducted 449 school partnerships in 2000-2001, 61% of which were in historically low-performing schools.
- NWP local sites offered 5516 professional development programs in 2000-2001.

Program Context

The National Writing Project has 175 local sites in school-university partnerships across the country. Teachers whose students are from diverse cultural backgrounds and school locations have participated in the writing project. The national teaching force is estimated to be about 13% teachers of color. The National Writing Project annually serves approximately 19% teachers of color, an over–representation of approximately 50%. NWP reaches one in 40 teachers each year and serves nearly 100,000 teachers annually. Writing project professional development reaches one in eight high school teachers, one in nine middle school teachers, and one in 35 elementary school teachers.

Staff Development Program

The Invitational Summer Institute is the core feature of the professional development program. The model calls for a five-week, four-day-a-week, intensive summer institute during which teachers write three or four significant pieces of writing, demonstrate successful teaching practices, provide and receive coaching, participate in editing/response groups and research groups, engage with experts and guest speakers, meet with former summer fellows, and plan and conduct school year staff development programs for tcolleagues in their schools or districts.

The professional development program is based on the creation of a professional community that provides intellectual challenges, that offers professional opportunities, and that expects teachers to participate in career-long growth. Through its process of engaging teachers as teachers of other teachers, the model continuously perpetuates teacher leadership.

The National Writing Project model is based on a balance between freedom for the local sites to modify the program to meet the needs of their own communities and a commitment to the basic tenets of the National Writing Project. Most sites design a customized program that meets the specific needs of special student populations, as well as the needs of all learners.

NWP sites offer a broad array of additional services and support to teachers ranging from conferences, additional training opportunities, networking meetings, teacher research groups, written and electronic communication, networking, and on-site support.

PROCESS

- Summer institutes
- Coaching
- Training
- Demonstrations
- On-site support
- Inservice workshops
- School-university partnerships

INTENDED AUDIENCE

- Teachers of writing
- English language arts teachers
- Teachers of other disciplines
- Teacher leaders
- Individual teachers
- Teacher teams

the BOTTOM LINE

☆ ☆ ☆ ☆

The National Writing Project provides the nation's teachers with high-quality, effective, high-capacity, and cost-effective professional development in the teaching of writing (Inverness Research Associates, 2001). As a long-standing and successful staff development program, the National Writing Project provides professional development to teachers of writing for the purpose of improving students' performance in writing. It is a model of a teacher-driven staff development program that has both the flexibility and structure to accommodate the needs of its local sites.

Evidence of Student Achievement

SUCCESS INDICATORS

- Writing assessments
- State- and district-writing assessments
- API scores
- Teacher surveys

Studies demonstrating the National Writing Project's impact on student performance are extensive. A few examples follow.

Students participating in Pathway, a five-year writing program in the Santa Ana (CA) Unified School District, showed significantly higher gains in writing achievement than their peers. Participating students had fewer absences and higher grade point averages than their peers, with 100% graduating from high school and more than 90% going on to post-secondary education.

A 2000-2001 Academy for Educational Development evaluation highlights the significant impact writing project programming has had in a sampling of 3rd- and 4th-grade classrooms in Kentucky, Mississippi, Oklahoma, Pennsylvania, and California. In response to timed-writing assessments given in the fall and spring, 89% of 3rd-graders and 81% of 4th-graders reached adequate or strong achievement for effective persuasive writing by their second assessment.

In the second year of a partnership between the UCLA Writing Project and 18 elementary schools in the Los Angeles Unified School District, participating schools; API scores rose by an average of 51 points (from 1999 to 2000). In another partnership, between the Mississippi State University Writing/Thinking Project and two school districts in rural Mississippi, the districts' statewide performance assessment scores rose significantly from 1998 to 1999, particularly at the grade levels where intensive writing project intervention was implemented.

Project Director

Andy Bradshaw
Communications Associate
National Writing Project
University of California
2105 Bancroft Way, #1042
Berkeley, CA 94720-1042


Phone: (510) 643-3408


Fax: (510) 643-5717


E-mail: nwp@writingproject.org


Web site: www.writingproject.org

Sample Sites

SITE #1

Lisa Robinson
Pat Henry Elementary School
1401 Northwest Bessie
Lawton, OK 73507

phone: (580) 355-2617
fax: (580) 585-6383
e-mail: lnr80@onenet.net
web site: www.lawtonps.org/PatHenry/

SITE #2

Frank Murphy
General George G. Meade Elementary
1600 North 18th Street
Philadelphia, PA 19121

phone: (215) 684-6052
fax: (215) 684-7006
e-mail: fmurphy@phila.k12.pa.us
web site:
http://saa.phila.k12.pa.us/asp/elem_schools.asp

SITE #3

Alice Beaty
Kemper County Schools
P.O. Box 97 Binnsville Road
Scooba, MS 39358

phone: (662) 476-8423
fax: (662) 476-8001
e-mail: abeaty@kemper.k12.ms.us
web site: http://kemper.k12.ms.us

SITE #4

Lynn Gottbrath
Breckinridge-Franklin Elementary
1351 Payne Street
Louisville, KY 40206

phone: (502) 485-8215
fax: (502) 485-8628
e-mail: lgotbr1@jefferson.ky.k12.us
web site: www. jefferson.k12.ky.us/
Schools/Elementary/Breck-Frank.html

Documentation

Academy for Educational Development. (2001, Spring). National Writing Project evaluation: Year one results. New York: Author.

Academy for Educational Development. (2002). Year two evaluation report. New York: Author.

Inverness Research Associates. (2001, April). Ten evaluation findings that illuminate the key contributions of the National Writing Project. Inverness, CA: Author.

Inverness Research Associates. (2001, December). The National Writing Project: Client satisfaction and program impact. Inverness, CA: Author.

St. John, Mark. (1999, November). The National Writing Project Model: A five-year retrospective on findings for the annual site survey. Inverness, CA: Author.

The California Writing Project. (2002). California Writing Project: Models of successful professional development. Berkeley, CA: Author.

The National Writing Project. (2002). Profiles of the National Writing Project: Models of successful professional development. Berkeley, CA: Author.

Project Success Enrichment

Program Description

CONTENT

- Writing process
- Literature study and literary analysis
- Critical and creative thinking
- Reading strategies
- Linking language arts with visual arts
- Language and writing skills
- Visual arts (drawing, painting, and clay work)

Project Success Enrichment focuses on a process approach to writing to integrate literature, higher-order thinking skills, multiple intelligences, and other disciplines. Through the staff development program teachers learn to incorporate cooperative learning, hands-on activities, problem solving, demonstrations, questioning strategies, and critical and creative thinking processes in the classroom. Teachers learn to accommodate a variety of learning styles and needs of various learners by adjusting curriculum and student projects to address differences among their students. Teachers acquire skills to integrate questions, enhance students' creative and critical thinking skills, integrate writing and thinking in a structured organized way, and connect writing and thinking to reading, literature, the visual arts, and other disciplines.

The U.S. Department of Education's National Diffusion Network and the Kentucky Department of Education both identified Project Success Enrichment as a program that improves student achievement. It is included in all of the volumes in the National Staff Development Council's What Works series (i.e., the middle and high school editions).

Program Context

CONTEXT

- Varied school sites
- Varied K–12 student populations including ESL, Title I, special education, gifted, and regular education
- 2300+ districts in 22 states
- 60 certified trainers

Project Success Enrichment has been adopted by over 2300 school districts in 22 states. It is appropriate for students of all ability levels including gifted, special education, ESL, Title I, and ADD students. It is appropriate for any student population in grades K–12 and for all types of school settings. It has demonstrated success in urban, rural, and suburban schools. Approximately 60 teachers are trained as national, state, or local certified trainers who can provide the program's staff development.

Staff Development Program

Project Success Enrichment's staff development program is organized into three levels and into three areas: language arts, visual arts, and the integrated language arts and visual arts program. The initial training is a two- to four-day workshop that is followed with in-depth, advanced level workshops.

In the initial training teachers learn a process-oriented approach to the basic curricula through the use of lecture, hands-on activities, cooperative learning, problem solving, demonstrations, and examining student work samples. With the curriculum as the foundation, teachers learn to make accommodations for diverse learning styles. Teachers learn a structured, organized way to teach writing and thinking together, thus connecting the process to reading, literature, visual arts, and various other disciplines.

Level I workshops in language arts focus on word expansion, sentence expansion, figurative language, nonrhyming poetry, descriptive writing, writing portfolios, and editing. Level II workshops in language arts include literary elements with descriptive writing, rhyming poetry, abstract nouns as themes, literary analysis, editing, integration of multidisciplinary themes, and student product assessment. Level III workshops include the use of symbolism in analytic writing, assorted formats for short story writing, integration of different writing styles, literature for unit development, integration of mechanics and composition skills, and advanced strategies for questioning. In addition, Levels I, II, and III are offered concerning the visual arts and their integration with the language arts and other disciplines.

PROCESS

- Training
- Demonstration
- Modeling
- Curriculum development
- On-site support
- Trainer Certification Program

INTENDED AUDIENCE

- Entire school faculties
- Department teams
- Grade level teams

the BOTTOM LINE

☆ ☆ ☆ ☆

Project Success Enrichment has demonstrated its impact on student achievement in writing and reading. Using a combination of teacher staff development, curriculum, and instructional materials, the program assists teachers in developing students' critical and creating thinking and applying them to writing, reading, literature, and visual arts. The program has the flexibility to accommodate the needs of diverse learners. The program's curriculum and instructional resources can be used as a supplement to the regular curriculum and may also be used independently.

SUCCESS INDICATORS

- Writing and visual arts samples
- Student work portfolios
- State writing, reading, and visual arts assessments

Evidence of Student Achievement

Students whose teachers have received training in Project Success Enrichment and who experienced the project's curriculum performed significantly better on measures of reading and writing when compared to students not participating in the program. On one study of students at 17 sites in five states, students demonstrated statistically significant growth in creative writing. In another study at 37 sites in 16 states, students had similar results. Student pre- and post-test portfolios also demonstrated growth in writing and visual arts.

Project Success Enrichment was validated by the Program Effectiveness Panel in 1996 and the Joint Dissemination Review Panel of the U.S. Department of Education in 1989. From 1991 through 1995, the effect size for sites implementing Project Success Enrichment was large (ranging from .26 to .50) in 76 sites in seven states. Impact results for 1998–2001 indicate that similar large effect sizes exist in pre- and post-test scores of student writing and visual arts. Another study indicates success with ESL students and indicates consistent gains on state writing tests for high school and middle grades students.

Project Director

Carol Gaab-Bronson
Creative Child Concepts
P.O. Box 22447
Seattle, WA 98122-0447


Phone: (206) 325-5418


Fax: (206) 860-9599


E-mail: bronson@methow.com


Web site: www.projse.com

Sample Sites

SITE #1

Robert Aumaugher
Eureka Elementary School
P.O. Box 249
Eureka, NV 89316

phone: (775) 237-5700
fax: (775) 237-7026
e-mail: baumauger@eurekanv.k12.nv.us
web site: www.eureka.k12.nv.us

SITE #2

Kristin Cook
Worsham Elementary School
3007 Hartwick Road
Houston, TX 77039

phone: (281) 985-6520
fax: (281) 985-6524
e-mail: kcook@aldine.k12.tx.us
web site: www.aldine.k12.tx.us

SITE #3

Jan Reed
Chinle Elementary School
P.O. Box 587
Chinle, AZ 86503

phone: (928) 674-9503
fax: (928) 674-9430
e-mail: jreed@cybertrails.com
web site:
http://162.42.139.5/ces/index.html

SITE #4

Kathy Brazinski
Albert R. Lewis Elementary
1755 Shady Grove Road
Pickens, SC 29671

phone: (864) 868-9047
fax: (864) 868-4016
e-mail: Brazinkj@pickens.k12.sc.us
web site:
www.pickens.k12.sc.us/arlewis.es

SITE #5

Robyn Bowling
Irving ISD- John Haley Elementary
1100 Schulze
Irving, TX 75060

phone: (972) 273-6600
fax: (972) 273-6608
e-mail: robynbowling@irvingisd.net
web site: www.irvingisd.net

Documentation

The Creative Connection. (1996). Revalidation submittal for the Program Effectiveness Panel. Seattle: Author.

Killion, J. (1999). Project Success Enrichment. In What works in the middle: Results-based staff development (pp. 58 – 61). Oxford, OH: National Staff Development Council.

Maker, C., Rogers, A., Nielson, A., & Bauerle, P. (1996). Multiple intelligences, problem solving, and diversity in the general classroom. Journal for the Education of the Gifted, 19 (4), 437 – 460.

Project Success Enrichment. (1996). Educational programs that work: The catalogue of the National Diffusion Network (21st ed.). Longmont, CO: Sopris West.

Reading Recovery

Program Description

CONTENT

- Early literacy development
- Letter/words
- Writing/sounds
- Constructing and reading text
- Instructional strategies
- Phonics
- Phonemic awareness
- Vocabulary and spelling
- Fluency
- Comprehension
- Motivation

Reading Recovery is a short-term intervention of one-to-one teaching for low-achieving 1st graders. The intervention is most effective when it is available to all students who need it and is used as a supplement to good classroom teaching. Reading Recovery serves lowest-achieving 1st graders – the students who are not catching on to the complex set of concepts that make reading and writing possible. Individual students receive a half-hour lesson each school day for 12-20 weeks with a specially trained Reading Recovery teacher. As soon as students can read within the average grade level of their class and demonstrate that they can continue to achieve, their lessons are discontinued and new students begin individual instructions.

The staff development model associated with Reading Recovery is an intensive, three-level teacher training process, one-to-one teaching for students, and ongoing research on results for every student served. The model links results for students with a specific teacher, school, training site, and university for continuous improvement and accountability.

Program Context

CONTEXT

- Wide range of students
- Wide range of schools and districts
- Low-achieving 1st grade students
- Bilingual and non-English speaking students

Over one million students have been served with Reading Recovery. These students are low-achieving 1st-grade students in 3293 districts and 10,662 schools across the United States and represent economically, linguistically, ethnically diverse students. Associated with Reading Recovery are 40 university trainers at 23 universities, 723 teacher leaders, and 18,830 teachers. Ongoing evaluation, rigorous program and professional development standards, and annual data collection ensure the quality of Reading Recovery.

Staff Development Program

The staff development model includes several components to ensure the quality of the program and its high level of results. The first is university trainers who are faculty members working at one of the 23 university-based academic centers and providing training to teacher leaders. The one-year residency program prepares post-doctoral university faculty to train Reading Recovery teacher leaders.

Teacher leader candidates must have a master's degree and leadership potential and are selected by a school district or a consortium. Teacher leaders attend one of the 23 university training centers for a full year of training with academic credit and teach four Reading Recovery students daily. They attend graduate level classes, clinical and leadership practicum, and seminars in reading, writing, and adult learning theory as they prepare their home districts for Reading Recovery.

Teacher candidates are certified teachers selected for training by their home districts. The candidates work with four students daily and attend a weekly three-hour class taught by the teacher leader that incorporates theory and practice. Each teacher-in-training is observed at least four times a year by the teacher leader who provides feedback to the teacher. Reading Recovery teachers develop keen observational skills and a repertoire of instructional strategies to meet the needs of individual students.

Following the year of training, annual required continuing education includes the university trainers, teacher leaders, and teachers. This annual professional development is designed to hone and expand the knowledge and skills of instructors.

PROCESS

- Training
- Observation
- Feedback
- Coaching
- Continuous development

INTENDED AUDIENCE

- Individual teachers
- Literacy teachers

Language Arts

the BOTTOM LINE

☆ ☆ ☆ ☆

Its long history of increasing students' early reading and writing performance and its extensive and rigorous professional development program suggest Reading Recovery is a successful content-specific staff development programs available for teachers of1st grade. It has been named as one of 10 promising programs by Hermann and Stringfield. While many express concern about the cost of one-to-one instruction, the potential return on this investment could be monumental in terms of reducing specialized instruction for low-achieving readers later in their school experience.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests
- Program-related test

Seventeen years of evaluation studies document the effectiveness of Reading Recovery as measured on the Observation Survey of Early Literacy Achievement and include records of every child served in the United States. By the end of spring, 2001, data on 1,003,796 students had been collected.

A pre- and post-test program assessment is conducted on each child. The 16-year success rate indicates that 81% of the students who completed the full series of lessons read within an average grade level of their class by the end of 1st grade. "Success" means that a student 1) has demonstrated independent reading and writing strategies that will allow continued achievement; 2) can read within the average range of the class reading performance and 3) has made accelerated gains. The majority of students, 59%, who were served for even one lesson, successfully met the criteria for discontinuation.

Several studies of non-English-speaking 1st grade students suggest that Reading Recovery narrows the achievement gap between native and non-native speakers. Reading Recovery has consistently proven its ability to bring the lowest-achieving 1st grade students up to the level of their peers. Follow-up studies of Reading Recovery students reveal that the majority of students continue to perform within an average range of performance when compared to their peers.

Project Director

Jean Bussell
Executive Director
Reading Recovery Council
1929 Kenny Road
Suite 100
Columbus, OH 43210-1069


Phone: (614) 292-1795


Fax: (614) 292-4404


E-mail: jbussell@readingrecovery.org


Web site: www.readingrecovery.org

Sample Sites

SITE #1

Pennie Turner
School District of Pickens County
2671 Earl's Bridge Road
Easley, SC 29640

phone: (864) 850-2095
fax: (864) 850-2090
e-mail: turnerpp@pickens.k12.sc.us
web site: www.pickens.k12.sc.us

SITE #2

Maryann F. McBride
Thomas Claggett Elementary
2001 Addison Road South
Capitol Heights, MD 20747

phone: (301) 808-4465
fax: (301) 808-8291
e-mail: n/a
web site: www.pgcps.org

SITE #3

Jon W. Balke
Plainfield Community Consolidated School District #202
15732 Howard Street
Plainfield, IL 60544

phone: (815) 577-4033
fax: (815) 436-7824
e-mail: JBalke@learningcommunity202.org
web site: www.learningcommunity202.org

SITE #4

Cecelia Osborn or Kathleen Brown
Sutter School Rooms 11 and 12
5075 Daisy Avenue
Long Beach, CA 90805

phone: (562) 984-5897
fax: (562) 984-4367
e-mail: cosborn@lbusd.k12.ca.us or
KABrown@lbusd.k12.ca.us
web site: busd.k12.ca.us

Documentation

Ashdown, J., & Simic, O. (2000). Is early literacy intervention effective for English Language learners? Evidence from Reading Recovery. Literacy Teaching and Learning: An International Journal of Early Reading and Writing, 5(1), 27-42.

Askew, B., Fountas, I., Lyons, C., Pinnell, G., & Schmidt, M. (1998). Reading Recovery review: Understandings, outcomes, and implications. Columbus, OH: Reading Recovery Council of North America.

Herman, R., & Stringfield, S. (1997). Ten promising programs for educating all children: Evidence of impact. Arlington, VA: Educational Research Service.

Neal, J., & Kelly, P. (1999). The success of Reading Recovery for English Language Learners in Descubriendo La Lectura for bilingual students in California. Literacy, Teaching and Learning: An International Journal of Early Reading and Writing, 4(2), 81-108.

Pinnell, G. (2000). Reading Recovery: An analysis of a research-based reading intervention. Columbus, OH: Reading Recovery Council of North America.

Rowe, K. (1995). Factors affecting students' progress in reading: Key findings from a longitudinal study. Literacy, Teaching, and Learning: An International Journal of Early Literacy, 1, 57-110.

Scaffolding Early Literacy Program

Program Description

CONTENT

- Early literacy development
- Constructing knowledge through social interaction
- Scaffolding instruction
- Developmentally appropriate instructional strategies
- Assessment as a guide for instruction

Scaffolding Early Literacy Program consists of four components. The first component includes early literacy standards and benchmarks. A Framework for Early Literacy Instruction: Aligning Standards to Developmental Accomplishments and Student Behaviors was developed from a review of the research. Standards for reading and writing identify benchmarks and supporting knowledge that define what students should understand and be able to do.

The second component is an early literacy curriculum that focuses on specific literacy prerequisites identified as having the greatest impact on reading and writing (e.g., oral language, phonemic awareness, knowledge of letters), and on foundational skills, such as self-regulation, that affect literacy learning and learning in other areas.

The third component is a diagnostic, prescriptive assessment system. Using a simple testing process, the Early Literacy Advisor (ELA) allows teachers to collect assessment data using standardized and authentic procedures. ELA creates a student profile that provides an in-depth analysis of a child's current level of literacy development and suggests research-based teaching strategies.

The last component is professional development. Teacher professional learning links theoretical concepts with teaching and provides opportunities for teachers to practice new applications with ample feedback.

Program Context

CONTEXT

- Head Start programs
- Even Start programs
- Public preschool and kindergarten programs
- Private preschool and kindergarten programs
- Urban, suburban, and rural settings

Scaffolding Early Literacy Program has been implemented in school and district sites, area education agencies, Head Start and Even Start programs in urban, suburban, and rural areas in six states. These states include a large number of programs in multiple counties and agencies. For example, the Mississippi Bend Area Education in Bettendorf, Iowa, which serves over 56,000 students, and eight Even Start sites, which cover the state of Wyoming, have implemented Scaffolding Early Literacy Program and the Early Literacy Advisor assessment system.

Staff Development Program

Professional development is customized to meet client needs and is based on an analysis of the school's, district's or agency's current early literacy program. Staff development ranges from two-day introductory sessions to long-term, intensive and comprehensive professional development that helps the client build capacity and sustain the program over time. To establish an ongoing mentoring and coaching system, McREL provides staff development to teachers whose classrooms will serve as demonstration sites in which teachers model, coach, and interact with others teachers. These lead teachers model room design, activities, curriculum, instructional strategies.

In the program, teachers develop extensive content knowledge, view videotapes, see models of lessons, and examine student work in a climate of inquiry. Participants learn about current issues in early literacy, such as the relationship between early literacy development and later academic achievement and how to implement standards-based instruction and developmentally appropriate practices in an early childhood classroom. Participants also learn how to use early literacy assessment to inform classroom instruction and how to implement effective teaching strategies with preschool and kindergarten children. In addition, for sites that use the Early Literacy Advisor assessment system, teachers benefit from a unique professional development option — ongoing access to an "expert teacher" in the classroom.

the BOTTOM LINE

☆ ☆ ☆ ☆

Scaffolding Early Literacy Program has demonstrated that it has a positive impact on both teachers and their students. Results from a variety of evaluations hold across variable groups in a wide variety of education settings. The United Nations' International Bureau of Education has included the program in the international database of educational innovations (INNODATA). Early success in literacy is the key to students' later academic success, and Scaffolding Early Literacy Program is one way to provide teachers the deep knowledge and extended instructional and assessment skills to prepare their students for success in reading and writing.

PROCESS

- Demonstration teaching
- Training
- Modeling
- Videotapes
- Analyzing student work products
- Early Literacy Advisor

INTENDED AUDIENCE

- Individual teachers
- Grade level teams
- Literacy coaches
- Staff developers
- Field supervisors
- Educators of pre-service teachers

SUCCESS INDICATORS

- Classroom assessments
- Student work products
- Standardized assessments

Evidence of Student Achievement

Students whose teachers received training in Scaffolding Early Literacy Program consistently score significantly better on assessments designed to measure progress on literacy components such as letter recognition, sound-to-symbol correspondence, instant word recognition, and reading concepts. In recent data collected from Head Start classrooms, students in project classrooms scored higher on measures of letter recognition and sound-to-symbol correspondence.

In one quasi-experimental study using matched-pair classrooms, children in the project schools showed significantly stronger growth compared to children in non-project schools in the pre-literacy variables most closely associated in the literature with reading achievement in later grades. Statistically significant increases included improvement in sound-to-symbol correspondence; better voice-to-print match in an assessment of reading concepts; more accurate spelling in writing; better phonemic encoding of words that are not a part of the controlled vocabulary in writing; increase in the complexity of written messages; better understanding of the concept of a sentence; and better understanding of the symbolic function of a printed word.

Project Director

Jennifer Norford
Senior Program Associate
Mid-continent Research
for Education and Learning (McREL)
2550 South Parker Road, Suite 500
Aurora, CO 80014-1678


Phone: (303) 337-0990


Fax: (303) 337-3005


E-mail: jnorford@mcrel.org


Web site: www.mcrel.org

Sample Sites

SITE #1

Jan Yoder
Mississippi Bend Area Education Agency
729 21st Street
Bettendorf, IA 52722

phone: (563) 344-6315
fax: (563) 359-5967
e-mail: jyoder@aea9.k12.ia.us
web site: www.aea9.k12.ia.us

SITE #2

Mary Maly
Lakeland Area Education Agency
5253 2nd Street
Cylinder, IA 50528

phone: (712) 424-3211
fax: (712) 424-3027
e-mail: mmaly@aea3.k12.ia.us
web site: www.aea3.k12.ia.us

SITE #3

Mary Sue Kretsch
Jefferson County Head Start
900 Jefferson County Parkway
Golden, CO 80401

phone: (303) 271-4688
fax: (303) 271-4078
e-mail: mkretsch@co.jefferson.co.us
web site: www.co.jefferson.us

SITE #4

Jodie Baugh
Bunche Early Childhood Center
700 South Jackson
Midland, TX 79701

phone: (915) 689-1410
fax: (915) 689-1417
e-mail: JBaugh@esc18.net
web site: n/a

Documentation

Bodrova, E., & Leong, D. J. (1998). Scaffolding emergent writing in the zone of proximal development. Literacy Teaching and Learning, 3(2), 1–19.

Bodrova, E., & Leong, D. J. (2001). Tools of the mind: A case study of implementing the Vygotskian approach in American early childhood and primary classrooms. Geneva, Switzerland: International Bureau of Education, UNESCO. http://www.ibe.unesco.org/International/Databanks/Innodata/inograph.htm

Bodrova, E. & Leong, D. J. (2002). Early Literacy Advisor Head Start results 2001–2002. Unpublished raw data. Aurora, CO: Mid-continent Research for Education and Learning.

Bodrova, E., Leong, D. J., Paynter, D. E., & Hensen, R. (2001). Scaffolding literacy development in the preschool classroom (2nd ed.). Aurora, CO: Mid-continent Research for Education and Learning.

Bodrova, E., Leong, D. J., Paynter, D. E., & Hughes, C. (2001). Scaffolding literacy development in the kindergarten classroom (2nd ed.). Aurora, CO: Mid-continent Research for Education and Learning.

Bodrova, E., Leong, D. J., Paynter, D. E., & Semenov, D. (2000). A framework for early literacy instruction: Aligning standards to developmental accomplishments and student behaviors. (2nd ed.). Aurora, CO: Mid-continent Research for Education and Learning. Available: http://www.mcrel.org/products/literacy/framework.asp

Bodrova, E., Leong, D. J., & Semenov, D. (1998). Best teachers with at-risk children (BTRC): Final report. Denver, CO: Metropolitan State College of Denver.

6 + 1 Trait™ Writing Model

Program Description

CONTENT

- Ideas
- Organization
- Voice
- Word choice
- Sentence fluency
- Conventions
- Presentation
- Assessment
- Instruction of traits
- Feedback to students

The 6 + 1 Trait™ Writing Model provides teachers with an analytic model for assessing and teaching writing. The model consists of seven qualities that define strong writing. These are: (1) Ideas, the heart of the message; (2) Organization, the internal structure of the piece; (3) Voice, the personal tone and flavor of the author's message; (4) Word Choice, the vocabulary a writer chooses to convey meaning; (5) Sentence fluency, the rhythm and flow of the language; (6) Conventions, the mechanical correctness; and (7) Presentation, how the writing actually looks on the page.

The 6 + 1 Trait™ Writing Model provides teachers with professional development to assess students' written work. The training involves learning how to use the scoring guide and the anchor papers for consistency of application across raters and schools. Scoring papers becomes the foundation for instruction.

The program provides teachers with an organizational structure for teaching writing. Teachers use the assessment to provide specific feedback to students and to focus on improving specific skills. The traits give students and teachers a common language to talk about the quality of writing. The connection between effective writing instruction and the assessment of student writing contributes to creating successful writers and teachers of writing.

Program Context

CONTEXT

- Wide variety of schools
- Wide variety of districts
- Wide range of student populations

The 6 + 1 Trait™ Writing Model has been used in a variety of schools and districts. Since 1985, the program has expanded to include thousands of teachers and hundreds of schools in almost every state and in a number of other countries as well. The program is appropriate for elementary, middle, and high school teachers and for students of a wide range of ability levels.

Staff Development Program

The 6 + 1 Trait™ Writing Model has a wide variety of professional development opportunities available for those interested in learning how to implement the program through the Northwest Regional Education Laboratory (NWREL). Workshops in local schools and districts, institutes at the NWREL, videotapes, resource books, Internet resources, and other forms of technical support are available.

The basic training is two days in which participants learn to evaluate student writing in grades 3-12. The goal of this day is assessing student work. The second day of the workshop focuses on building teachers' knowledge about the traits and helps teachers use the assessment to focus instruction. This day helps teachers develop application lessons for identifying quality writing, managing the writing process, mastering revision techniques, practicing editing skills, and developing confident writers. A separate two-hour overview of the program is available for school administrators to acquaint them with the program, its effectiveness, and ways to support teachers implementing the program.

An advanced training program is available and consists of three and one half days for those experienced with using the 6 + 1 Trait™ Writing Model and who are interested in becoming a trainer for others. NWREL is continuously developing new training and resources to support teachers in their implementation of the program.

PROCESS

- Training
- Demonstration
- Videotape
- Assessment
- Follow-up support
- Training of trainers

INTENDED AUDIENCE

- Teachers in grades 3-12
- Entire school faculties
- Department teams
- Grade teams
- Individual teachers

the BOTTOM LINE

☆ ☆ ☆ ☆

6 + 1 Trait™ Writing Model improves student writing performance. Students in grades 3-6 demonstrated improved writng scores when their teachers systematically implemented the model. While implementation and staff development differ from site to site, the assessment process and curricula are consistent. The program combines classroom-based assessment of student work with instruction to improve student performance in writing. The writing model can be used equally well by an individual teacher or entire school faculty.

SUCCESS INDICATORS

- Writing assessments scored using 6 + 1 Trait ™

Evidence of Student Achievement

In studies of 5th grade students whose teachers systematically used the 6 + 1 Trait™ Writing Model, students outperformed a similar group in every trait on a pre- and post-assessment of students' writing. Other studies of writing of students in grades 3, 4, and 5 confirm that 6 + 1 Trait™ contributes to increased performance on all traits. In a study of the importance of classroom-based assessment in three 5th-grade classrooms using the 6 + 1 Trait™ writing rubric, students in the treatment group outperformed the control group on all traits with traits receiving the greatest instructional emphasis demonstrating the greatest growth.

A study of the impact of 6 + 1 Trait™ on teachers' implementation and fidelity to the model was conducted at the elementary, middle, and high school levels. At the elementary school level, teachers reported using the 6 + 1 Trait™ Writing Model as the most widely used writing model and the most widely used assessment model. Teachers also reported having the flexibility to make adaptations to the model or to the materials as necessary. One hundred percent of the respondents to this study's survey reported that the 6 + 1 Trait™ Writing Model increased the quality of their students' writing.

Project Director

Janice Wright
Assessment Associate
Northwest Regional Educational Laboratory
101 Southwest Main Street
Suite 500
Portland, OR 97204-3297


Phone: (503) 275-9581


Fax: (503) 275-0450


E-mail: wrightj@nwrel.org


Web site: www.nwrel.org

Sample Sites

SITE #1

Annette Engle
Benjamin Franklin Elementary School
1600 Elm Street
Terre Haute, IN 47807

phone: (812) 462-4441
fax: (812) 462-4438
e-mail: aee@vigoco.k12.in.us
web site:
www.vigoco.k12.in.us/~tl1dpt/franele.html

SITE #2

Bridgette Belasli
Lake Washington School District
P.O. Box 97039
Redmond, WA 98073-9739

phone: (425) 702-3274
fax: (425) 861-7765
e-mail: bbelasli@lkwash.wednet.edu
web site: www.lkwash.wednet.edu

SITE #3

Sheila Raihl
Gadsden Independent School District
P.O. Drawer 70
Anthony, NM 88021

phone: (505) 882-6457
fax: (505) 882-0376
e-mail: sraihl.gisd.k12.nm.us
web site: www.gisd.k12.nm.us

SITE #4

Jake van Ruiten
Rio Linda Union School District Educational Services
6450 20th Street
Rio Linda, CA 95673

phone: (916) 991-1704 x78
fax: (916) 991-9695
e-mail: Jake.vanRuiten@rlusd.org
web site: www.rlusd.com

Documentation

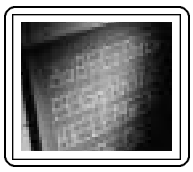
James, L., Abott, M., & Greenwood, C. (2001, Jan./Feb.). How Adam became a writer: Winning writing strategies for low-achieving students. Teaching Exceptional Children, 33(3), 30-37.

Killion, J. (1999). 6 + 1 Trait™ Writing Model. In What works in the middle: Results-based staff development (pp. 58 – 61). Oxford, OH: National Staff Development Council.

Northwest Regional Educational Laboratory. (n.d). 6 + 1 Trait™ Writing assessment model. Portland, OR: Author.

Northwest Regional Educational Laboratory. (n.d). Impact of 6 + 1 Trait™ Writing assessment summary study results. Portland, OR: Author.

School Centers for Classroom Assessment. (1993). 6 + 1 Trait™ Writing research study findings on the integration of writing assessment and instruction, final report 1992-1993. Portland, OR: Northwest Regional Educational Laboratory.



Standards for Language Arts

National Council of Teachers of English
International Reading Association, 1995

1. Students read from a wide range of print and nonprint texts including fiction, nonfiction, classic, and contemporary to build understanding, acquire information, respond to society and the workplace and fulfill personal needs.

2. Students read a wide range of literature from many periods in many genres to understand the many dimensions of human experience.

3. Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts.

4. Students adjust their use of spoken, written, and visual language to communicate effectively with a variety of audiences and for different purposes.

5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences and for different purposes.

6. Students apply knowledge of language structure, language conventions, media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.

7. Students conduct research by generating ideas and questions and posing problems; students gather, evaluate, and synthesize data from a variety of sources to communicate their discoveries in ways that suit their purpose and audience.

8. Students use a variety of technological and informational resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

9. Students develop an understanding of and respect for diversity in language use, patterns, and dialects from across cultures, ethnic groups, geographic regions, and social roles.

10. Students whose first language is not English make use of their language to develop competency in the English language arts and to develop understanding of content across the curriculum.

11. Students participate as knowledgeable, reflective, creative, and critical members of a variety of literary communities.

12. Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

Table 1: Standards for Language Arts

Ideal programs promote or develop the following standards	Achievement First	Carbo Reading Styles Program	Comprehensive Reading Program	Early Intervention in Reading	Early Literacy and Learning Model (ELLM)	Early Literacy Initiative Project	Exemplary Ctr. for Reading Instruction	Gateways to Literacy Project
• Read print and nonprint texts	X	X	X	X	X	X	X	X
• Read literature from many literature from many periods in many genre		X	X		X	X	X	X
• Apply strategies to comprehend, interpret, evaluate, and appreciate texts	X	X	X	X	X	X	X	X
• Adjust use of spoken, written, and visual language	X	X	X		X	X	X	X
• Employ strategies in writing process	X	X	X		X	X	X	X
• Apply knowledge of language structure, conventions, media techniques, figurative language, and genre	X	X	X			X	X	X
• Conduct research on issues and interests	X	X				X	X	X
• Use technological and informational resources		X	X			X	X	X
• Develop an understanding of and respect for diversity in language		X	X		X	X	X	X
• Use first language to develop competency in English language		X	X		X	X	X	X
• Participate as members of literacy communities	X	X		X	X	X	X	X
• Use spoken, written, and visual language	X	X	X	X	X	X	X	X

Table 1: Standards for Language Arts

Ideal programs promote or develop the following standards	Junior Great Books	The Learning Network	Literacy Collaborative	National Writing Project	Project Success Enrichment	Reading Recovery	Scaffolding Early Literacy Program	6 + 1 Trait™ Writing Model
• Read print and nonprint texts	X	X	X	X	X	X	X	
• Read literature from many literature from many periods in many genre	X	X	X	X	X	X		
• Apply strategies to comprehend, interpret, evaluate, and appreciate texts	X	X	X	X	X	X	X	X
• Adjust use of spoken, written, and visual language	X	X	X	X	X	X	X	X
• Employ strategies in writing process	X	X	X	X	X	X	X	X
• Apply knowledge of language structure, conventions, media techniques, figurative language, and genre	X	X	X	X	X	X	X	X
• Conduct research on issues and interests	X	X	X	X	X			X
• Use technological and informational resources		X	X	X				X
• Develop an understanding of and respect for diversity in language		X	X	X	X	X	X	X
• Use first language to develop competency in English language	X	X	X	X	X	X	X	X
• Participate as members of literacy communities	X	X	X	X	X	X	X	X
• Use spoken, written, and visual language	X	X	X	X	X	X	X	X

CHAPTER 6

MATHEMATICS PROGRAMS

Mathematics Staff Development Programs

George Bright, National Council of Teachers of Mathematics

When we began this project, our intuition told us that there were far more professional development programs for elementary teachers than for either middle or high school mathematics teachers. However, the number of mathematics nominations was surprisingly low. We are not sure why. It may be that mathematics educators engaged in professional development are overloaded and simply do have not have time to prepare a submission or that professional development programs are not gathering evidence of student achievement. Although there is a lot of professional development activity, perhaps much of it is not effective. We wonder why more local systemic change projects were not nominated since it is likely that student achievement data would exist. It is possible that so many local factors were built into projects, that directors might have believed their work would not be valuable to others. It may be that our intuitions were wrong.

At a surface level, the mathematics projects in this section are strikingly different in terms of the opportunities provided for teachers. Of course there are formal inservice sessions which address mathematics content, pedagogy, and leadership development. But there are also modeling of lessons, developing of building coordinators to provide local support, summer institutes, visits by project staff to the classrooms of teacher participants, collaboration and reflection time for teachers, and after-school meetings.

In spite of the small number of projects that were nominated, the projects that are included do share some common perspectives. In terms of content, they all helped teachers learn new content or familiar content more deeply; they all helped teachers learn new pedagogical strategies or refine familiar strategies; and they all put focus on the ways that students learn mathematics. The process of professional development is also similar. First, they are all multi-year projects. This shows clear recognition of the need for sustained learning experiences and the need to go beyond one-shot professional development experiences. Second, they all allowed for input to teachers from people outside the teachers' local professional community. These external experts might be university faculty, consultants, or teachers from other districts. Third, they all provided follow-up and ongoing support. This might take the form of classroom visits, coaching, or opportunities for teachers to network either face-to-face or electronically. Fourth, they were all systemic projects that involved whole schools and/or whole districts and/or the community. Fifth, they all addressed the Principles and Standards for School Mathematics. However, because of the small number of projects, it is not possible to judge whether these characteristics are essential to effective mathematics professional development projects for elementary school teachers.

It is clear that sometimes good programs get started and even get implemented, but the infrastructure is not put in place to maintain and sustain the program. Such programs typically disappear from the professional landscape, sometimes to be rediscovered years later. It is important that good programs continue to be supported, and we offer this task as one of the critical challenges for the professional development community in the 21st century.

It is also important that leaders of professional development projects recognize the importance of documenting program effectiveness in terms of improved student learning. We challenge the professional development community to think carefully and deeply about what kinds of data provide convincing evidence of program effectiveness. We hope this publication will encourage mathematics professional development leaders and providers to find ways to share their good work.

References

National Council of Teachers of Mathematics. (2000). Principles and standards for school mathematics. Reston, VA: Author.

Cognitively Guided Instruction

Program Description

CONTENT

- Addition
- Subtraction
- Multiplication
- Division
- Place value
- Analyzing children's mathematical thinking
- Responding to children

Cognitively Guided Instruction (CGI) is an approach to teaching mathematics in which teachers' knowledge of children's thinking is central to instructional decision making. Teachers use research-based knowledge about children's mathematical thinking to help them learn specifics about individual students and then to adjust instruction to match students' performance strengths. CGI assists teachers in rethinking how children learn mathematics and how they think about mathematics and in gaining instructional strategies for teaching mathematics to take advantage of this understanding.

CGI is based on the hypothesis that, when teachers have well-developed knowledge about how children's mathematical thinking develops and can use this knowledge as a lens through which to view teaching and their students, their instructional practices will change. CGI is a professional development program focused on developing teachers' understanding of how children learn and think about mathematics. There are not curriculum materials or student materials. Teachers implement CGI in ways that are most comfortable to them, yet all implementation has common elements that include children solving problems and sharing their solutions and strategies.

Program Context

CONTEXT

- Wide range of student populations
- Wide range of schools
- Wide range of districts

Cognitively Guided Instruction began in Wisconsin schools and has been implemented in many schools and districts in Minnesota, North Carolina, Texas, California, Illinois, and Arizona. Student populations in the schools and districts using CGI are diverse economically, ethnically, and linguistically. Several districts are providing training for teachers in Cognitively Guided Instruction as a part of their reform mathematics efforts and to supplement implementation of reform mathematics curriculum.

Staff Development Program

There are many variations of Cognitively Guided Instruction's professional development program. However, they share common elements that include: formal inservice training, background reading, reflection on classroom instruction, and supporting visits to teachers' classrooms. The core content of CGI includes two taxonomies: 1) problem types for addition, subtraction, multiplication, division, and place value, and 2) children's solution strategies for these problems.

The core material for the professional development is contained in Children's Mathematics: Cognitively Guided Instruction (Heinemann, 1999). The book contains two CD-ROMs and a workshop leader's guide. The CDs contain videos of individual students solving problems and videos of classrooms in which CGI is implemented. These video excerpts come from a more extensive set of six videotapes distributed by the University of Wisconsin. CGI professional development does not contain prescriptions for how to organize or deliver mathematics instruction. Rather, CGI provides an environment in which teachers can explore options for rethinking their own instructional practices.

Most CGI professional development extends over 2-3 years with professional development sessions in the summer, follow-up meetings during the school year, and observations of mathematics instruction with feedback provided to teachers. In many projects teachers plan instruction together, visit each other's classrooms, and talk about how their students are learning mathematics.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Videotape

INTENDED AUDIENCE

- Entire school faculties
- Individual teachers
- Grade level teams

the BOTTOM LINE

☆ ☆ ☆ ☆

Cognitively Guided Instruction is an effective professional development program that promotes changes in mathematical instruction and increases in student achievement in mathematics. The changes in instruction are driven by changes in teachers' understanding of mathematics and their beliefs about how children learn mathematics. Full implementation of CGI does not occur quickly and requires a significant commitment from schools and teachers for professional development and support across multiple years. The professional development associated with CGI has in many ways been a pacesetter for professional development in mathematics and has led the way for the use of video as a part of teacher training.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests

Several studies of Cognitively Guided Instruction indicate that students whose teachers apply the practices of CGI outperform non-CGI students on a variety of measures. In an experimental study of 1st grades CGI students outperformed non-CGI students on measures of number facts, complex addition and subtraction computation, and solving story problems in one-on-one interviews. CGI students expressed greater confidence in their ability to solve problems and were more "cognitively guided" in their beliefs. In a four-year study of 21 primary grade teachers, student means in CGI classes increased on both concept and problem-solving tests without any noticeable decrease in computation scores despite the shift in emphasis in instruction from skills to concepts and problem solving. The changes in concept and problem-solving performance appeared to be directly related to teachers' changes in mathematical instruction. The findings of this study suggest that teachers' development of a deeper understanding of children's mathematical thinking can be useful for helping them make fundamental changes in their instruction that are called for in reform mathematics.

A study that examined the relationships among 1st-grade teachers' pedagogical content beliefs, teachers' content knowledge, and students' achievement in mathematics found that students whose teachers had a more cognitively based perspective scored higher on work problems than did students whose teachers had a less cognitively guided perspective and that students of both types of teachers did equally well on addition and subtraction number facts.

Project Director

Linda Levi
Wisconsin Center for Education Research
University of Wisconsin-Madison
1025 West Johnson Street
Madison, WI 53706


Phone: (608) 263-4267


Fax: (608) 263-6448


E-mail: llevi@facstaff.wisc.edu


Web site: www.wcer.wisc.edu

Sample Sites

SITE #1

Deborah P. McMillian
Kernersville Elementary School
512 West Mountain Street
Kernersville, NC 27284

phone: (336) 996-1080 or (336) 996-1178
fax: (336) 996-8664
e-mail: dmcmillian@wsfcs.k12.nc.us
web site:
http://wsfcs.k12.nc.us/kvillees/index.htm

SITE #2

Linda Jaslow
Collaborative Action Research Project – CARP
13217 S. 38th Place
Phoenix, AZ 85044

phone: (480) 706-6746
fax: n/a
e-mail: msjasman@yahoo.com
web site: n/a

SITE #3

Rebecca Lockett
Tri-Valley Elementary School
409 E. Washington Street, P.O. Box 139
Downs, IL 61736 – 0139

phone: (309) 378 – 2031
fax: (309) 378-4578
e-mail: blockett@tri-valley.k12.il.us
web site: tri-valley.k12.il.us

Documentation

Bright, G., Chambers, D., Nesbitt-Vacc, N. (Eds). (1998, September). Cognitively guided instruction within elementary preservice teacher education programs: Results from a National Science Foundation research project. Madison, WI: University of Wisconsin, Wisconsin Center for Educational Research.

Carpenter, T., Fennema, E., Franke, M., Levi, L., & Empson, S. (1999). Children's mathematics: Cognitively guided instruction. Portsmouth, NH: Heinemann Publishers.

Carpenter, T., Fennema, E., Peterson, P., Chaing, C., Loef, M. (1989, Winter). Using knowledge of children's mathematics thinking in classroom teaching: An experimental study. American Educational Research Journal, 26(4), 499-531.

Fennema, E., Carpenter, T., Franke, M., Levi, L., Jacobs, V., & Empson, S. (1996). A longitudinal study of learning to use children's thinking in mathematics instruction. Journal for Research in mathematics Education, 27(4), 403-434.

Fennema, E., Franke, M., Carpenter, T., & Carey, D. (1993, Fall). Using children's mathematical knowledge in instruction. American Educational Research Journal, 30(3), 555-583.

Peterson, P., Fennema, E., Carpenter, T., & Loef, M. (1989). Teachers' pedagogical content beliefs in mathematics. Cognition and Instruction, 6(1), 1-40.

Rice University School Mathematics Project Summer Campus Program

Program Description

CONTENT

- Key mathematics concepts
- Instructional strategies
- Problem-solving skills
- Using manipulatives
- Authentic assessment
- Lesson design
- Integration of technology

The Rice University School Mathematics Project (RUSMP) was established in 1987, by a National Science Foundation grant. It teams the Rice University mathematics community and Houston-area mathematics teachers. The primary goals of RUSMP Summer Campus Program are to improve teachers' content knowledge in mathematics, encourage the use of the instructional practices suggested by the National Council of Teachers of Mathematics, and increase the level of professionalism among teachers. The RUSMP approach is founded on the belief that sustained instructional change is best supported through the development of professionalism among teachers and the creation of a network of teachers who have extensive knowledge of both mathematical content and pedagogy. All RUSMP activities are designed to support the development of teachers' professionalism and focus on three major areas: 1) solid knowledge of mathematics concepts that students must master; 2) awareness of a variety of approaches to instruction and their appropriate use; and, 3) the ability to plan and reflect on instruction together with other teachers.

The centerpiece of the program is a summer course for teachers that includes demonstrated teaching, planning concept-based learning activities, and attention to reform issues such as curriculum, application of mathematics, gender/equity issues, and pre-college mathematics content.

Program Context

CONTEXT

- Urban schools
- Private schools
- Ethnically diverse students
- Economically diverse students

The RUSMP Summer Campus Program serves both public and private schools in the Houston area. Houston Independent School District, the seventh largest school district in the nation with approximately 210,000 students, serves an ethnically and economically diverse student population. Ten other participating schools also serve ethnically and economically diverse students. The program has been implemented in other satellite sites in Texas, and RUSMP has assisted other universities in planning and implementing similar programs.

Staff Development Program

The core of the professional development program is a Summer Campus Program held at Rice School/La Escuela Rice four days a week for four weeks. Participants are separated into five grade level groups of approximately 20-30 teachers. Each day teachers share exemplary lessons or tips on effective teaching before they meet in grade level groups with master teachers who demonstrate content and pedagogical expertise. The master teachers work with the Directors of RUSMP to design the curriculum for each program level, model exemplary instruction, and conduct authentic assessments of participants throughout the program to model techniques for use with students.

Instructional practices modeled in the program include cooperative learning, explorations, open-ended problems and investigations, and applications and multiple representations. Other topics include integrating technology, authentic assessment, and using a wide range of manipulatives. Participants also use a Learning Plan template to organize daily instruction around central mathematical concepts from the curriculum. Learning Plans organize student activities rather than teacher activities.

Expanded opportunities for learning include past participants, university faculty, and school administrators. Teachers receive graduate credit for participating. Ongoing support is available to teachers throughout the school year to support and sustain their learning and implementation of new instructional processes. This support is provided through the network of program alumni who hold and serve in leadership positions in their schools and districts.

PROCESS

- Summer intensive workshops
- Demonstration lessons
- Lesson planning
- Master teachers

INTENDED AUDIENCE

- K-12 teachers
- Regular classroom teachers
- Grade level teams
- Volunteer teachers

Mathematics

the BOTTOM LINE

☆ ☆ ☆ ☆

Its recognition as a model program both by NSDC and other organizations, its frequent replication, and its tenure provide evidence about the success and value of Rice University School Mathematics Project. Not only has the program been successful, it has been successful in the challenging environment of urban schools who serve disadvantaged students. The program's focus on increasing teachers' knowledge about mathematics and how to teach mathematics and the collaboration between mathematics educators and researchers and teachers are the strongest assets. While RUSMP focuses on mathematics it serves as a model that could be replicated in other content areas.

Evidence of Student Achievement

SUCCESS INDICATORS

- Standardized tests
- Student surveys
- Teacher surveys

Over 3000 Houston-area mathematics teachers have participated in RUSMP since 1987. Independent evaluations have consistently shown evidence of gains in student achievement for teachers participating in the program. One study of students' scores on a standardized mathematics test compared the scores of students whose teachers participated in the program with scores of students whose teachers did not participate in the program and found significantly higher score for students of participating teachers when controlling for students' scores in the previous year. At the elementary level, score differences were primarily due to students' problem solving skills. (Austin, Dial, & Papakonstantinou, 1995).

Teachers report that their work with support teachers increased their teaching success, giving them confidence, experience, and motivation to apply innovative teaching practices in their classrooms during the academic school year. Teachers reported that their students met with success as a result of the hands-on activities teachers used to provide students with opportunities to experience success in mathematics.

Project Director

Anne Papakonstantinou
Director
School Mathematics Project
Rice University
6100 Main Street MS 172
Houston, TX 77005


Phone: (713) 348-6076


Fax: (713) 348-5428


E-mail: apapa@rice.edu


Web site: http://rusmp.rice.edu

Sample Sites

SITE #1

Sara Ptomey
Aldine Independent School District
14910 Aldine Westfield
Houston, TX 77032

phone: (281) 985-7174
fax: (281) 985-6444
e-mail: sptomey@aldine.k12.tx.us
web site: www.aldine.k12.tx.us

SITE #2

Sallie Langseth
Deer Park Independent School District
203 Ivy Street
Deer Park, TX 77536-2747

phone: (281) 930-4685
fax: (281) 930-4833
e-mail: Langseth@deer-park.isd.tenet.edu
web site:
http://internet.deer-park.isd.tenet.edu

SITE #3

Jean Frankie
Lamar Consolidated Independent School
3911 Avenue I
Rosenberg, TX 77471-9999

phone: (281) 238-7627
fax: (281) 633-5705
e-mail: jfrankie@lcisd.org
web site: www.lcisd.org

Documentation

Austin, J., Dial, M., & Papakonstantinou, A. (1995). Student effects of a teacher enhancement project. Houston, TX: Rice University School Mathematics Project. RUSMP DN: 95-02.

Houston Independent School District. (2002). The Rice University School Mathematics Project. Houston, TX: Author.

Killion, J. (1999). The Rice University School Mathematics Project. In What works in the middle: Results-based staff development (pp. 94 – 97). Oxford, OH: National Staff Development Council.

Schweingruber, H. (1999). The Rice University School Mathematics Project. The Mathematics Teacher, 92, 644.

Schweingruber, H., Papakonstantinou, A., Herbert, E., & Wells, R. (1999). Professional development to support the NCTM Standards: Lessons from the Rice University School mathematics project. Houston, TX: Rice University School Mathematics Project.

TREASUR Math

Program Description

CONTENT

- Reform mathematics
- Instructional strategies
- Reflective instruction
- Children's mathematical thinking
- Reform math curriculum
- Geometry
- Algebra
- Statistics

Teaching Reflectively: Extending and Sustaining the Use of Reforms in Mathematics (TREASUR Math), a NSF-funded Local Systemic Change project is a professional development program for teachers and principals of students in pre-school through 8th grade in Madison School District in Phoenix, Arizona. The program has several components that are reflected in the program's objectives. Pre-school through 8th grade teachers learn, develop, and use reflective teaching strategies as a regular component of their instruction and professional development. Teachers enhance their mathematics content background. The district adopted a philosophy of using children's thinking as a basis for instructional decisions across the district in all grades and in all content areas. The district developed and implemented a mechanism for professional development and support of reflective teaching strategies for new teachers. The level of teacher engagement with children's mathematical thinking is monitored. District and building administrators develop and use practices that support reflective teaching practices. Students demonstrate high levels of understanding of mathematics on classroom, state, and local district assessments. Parents and community at large receive information that helps them understand and support mathematics reforms initiated through TREASUR Math.

Program Context

CONTEXT

- Wide range of schools within one district
- Wide range of student populations

Madison School district is a K-8 school district in metropolitan Phoenix. It has a student population of 5200 in seven schools. The district serves an economically and linguistically diverse and highly mobile student population. Mobility rates in schools range from 24% to 56% and poverty rates range from 14% to 73%. The district uses Investigations in Number, Data, and Space® in grades K–5 and Connected Math® in grades 6–8.

Staff Development Program

The comprehensive staff development program includes content courses in algebra, geometry, and statistics. All teachers are required to attend one 45-hour course that is available in the school district and taught by a university faculty member. In addition, teachers have other opportunities to participate in courses related to mathematics instruction.

A week-long (30 hours) curriculum-specific Summer Institute is required for all teachers. This course helps teachers develop content, pedagogical, technological, and research knowledge to teach Investigations® and Connected Math® using reflective teaching strategies. The institutes are offered on three levels due to the complexity of the knowledge required to teach the curriculum. Level I focuses on basic implementation, uses a hands-on approach, and is geared to meet the needs of new teachers. Level II meets the needs of teachers who have taught a minimum of three units and focuses on deepening teachers' knowledge of the mathematics encountered in the curricula, increasing research knowledge on children's mathematical thinking and highlighting the pedagogical basis of the curriculum. It also encourages teachers to question and explore their pedagogical beliefs and practices. Level III builds teachers' content knowledge and research based deeply in one curriculum content strand.

To provide support at the school site, each school has two math teacher leaders who mentor and coach teachers. Monthly one-half day grade level meetings provide additional support. School administrators receive monthly training to better understand and support reform mathematics.

PROCESS

- Training
- Classroom coaching
- School-based support
- Observation
- Lead teachers
- Principal development

INTENDED AUDIENCE

- Entire school faculties

Mathematics

the BOTTOM LINE

☆ ☆ ☆ ☆

A comprehensive approach to staff development that includes developing teachers' content knowledge, expanding their content-specific pedagogy, providing intensive and differentiated training for teachers and their principals, providing on-site classroom support, and implementing a research-based curriculum can improve student achievement. TREASUR Math is evidence of that. TREASUR Math provides longitudinal evidence of its impact on student achievement. Using an extensive assessment prior to program implementation and staff development helped the Madison School District focus its professional development efforts specifically on the needs of the teachers, students, and administrators.

Evidence of Student Achievement

SUCCESS INDICATORS

- Standardized tests
- Criterion-referenced tests

Student achievement has been measured on the Stanford Achievement Test 9 (SAT 9) and the Arizona state assessment tests. In examining student achievement in mathematics on the SAT 9, student performance increases steadily in most grades and students from year to year show steady upward gains. For example, students who were in 5th grade in 2000 performed at the 65th percentile and those same students in the 6th grade in 2001 performed at the 69th percentile. And students who were 2nd graders in 1998 scored at the 55th percentile and as 4th graders in 2001 they performed at the 73rd percentile. A comparison of math scores on the SAT 9 from 1997 to 2000 for students in grades 2-7 demonstrate an increase in 13 of the 17 cases, with some of the gains being substantial at schools with low mobility rates and smaller numbers of students qualifying for free or reduced priced lunch.

High school algebra and geometry placement exams indicate that a larger percentage of students qualify for algebra. At one school serving students with the highest rates of mobility (58%) and poverty (73%), 79% of the students were qualified for algebra compared to 31% before the implementation of the reform mathematics program. In that same school, 30% of the students qualifying for algebra qualified for honors algebra.

Project Director

Barbara Pierce
Contact
Madison Camelview School
2002 East Campbell Avenue
Phoenix, AZ 85016


Phone: (602) 664-7200


Fax: (602) 664-7299


E-mail: bpierce@msd38.org


Web site: www.msd38.k12.az.us

Sample Sites

SITE #1

Debbie Ong
Madison Camelview
2002 East Campbell
Phoenix, AZ 85016

phone: (602) 664-7201
fax: (602) 664-7499
e-mail: Myty65@aol.com
web site: www.msd38.k12.az.us

SITE #2

Karolee Hess
Madison Camelview
2002 East Campbell
Phoenix, AZ 85016

phone: (602) 664-7210
fax: (602) 664-7299
e-mail: khess@msd38.k12.az.us
web site: www.msd38.k12.az.us

SITE #3

Denise Donovan
Madison Heights Elementary
7150 North 22nd Street
Phoenix, AZ 85020

phone: (602) 664-7800
fax: (602) 664-7899
e-mail: n/a
web site: www.msd.38.org

SITE #4

Linda Califano
Madison Rose Lane
1155 East Rose Lane
Phoenix, AZ 85014

phone: (602) 664-7400
fax: (602) 664-7499
e-mail: lcalifano@msd38.org
web site: www.msd38.k12.az.us

Documentation

Spencer, D. (2001, June) Students' performance in mathematics. Phoenix, AZ: Madison School District.

University of Illinois at Chicago All Learn Mathematics

Program Description

CONTENT

- Mathematics content and pedagogy
- Inquiry instruction
- Collaborative learning approaches
- Use of manipulatives
- Redefining teachers' roles
- Children's literature in mathematics
- Classroom organization and management
- Performance-based assessment
- Leadership skills

The University of Illinois at Chicago – All Learn Mathematics (UIC-ALM) is a three-year comprehensive staff development program for kindergarten through 3rd grade teachers in the Chicago Public Schools. The program's goals are to change teachers' mathematical competence and instructional practice in mathematics and to improve student achievement. Additionally, it aims to incorporate teachers and students as partners in the mathematics reform efforts, to promote broad-based community understanding and support for mathematics improvement, and to identify leadership committees to take responsibility for the continuous upgrading of the mathematics program. UIC-ALM includes classroom implementation of standards-based curricula, development of teacher leadership within schools, classroom follow-up support, and mathematics-related programs for families and students. The staff development program for teachers uses Investigations in Number, Data and Space®. The program demonstrates significant improvement in student achievement.

Program Context

CONTEXT

- Wide range of schools
- Wide range of student populations
- Urban school district

UIC-ALM was implemented in seven schools within Chicago Public Schools in grades K-3 and served over 100 teachers in the first cohort of seven schools. All seven schools served diverse student populations. The majority of the schools served mostly economically disadvantaged students. Five of the schools served large numbers of Black and Hispanic students. Three schools had large numbers of limited English speaking students. Another cadre of four schools began program implementation in the fall of 2000 with plans to include additional schools in the future.

Staff Development Program

The University of Illinois at Chicago – All Learn Mathematics K-3 model provided 66 hours of staff development outside the classroom and 54 additional hours of staff development in classrooms. Facilitators who were experienced teachers with master's degrees conducted the staff development sessions outside the classroom and provided the classroom support.

Workshops were held during release time, after school, on professional development days, during restructured days, on Saturdays, and during the summer. A portion of each workshop was devoted to problem-solving discussions in which teachers actively explored, shared, and discussed mathematics content, instruction, and school related issues. Teachers developed a deeper understanding of mathematics and gained confidence in teaching mathematics. Through the use of Investigations® materials, teachers moved toward standards-based instruction, gained knowledge about how to present students with meaningful mathematical problems, learned to approach mathematics with depth rather than breadth, communicated collaboratively about mathematics content and pedagogy, and increased student achievement.

In classroom staff development provided by the ALM, program associates included peer coaching, co-teaching, and modeling lessons. This support varied to accommodate individual teacher needs. The program associate also assisted with planning parent programs and met with school administrators to discuss implementation issues. Teacher leaders received training in leadership skills and related areas to support ongoing improvement.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Leadership development

INTENDED AUDIENCE

- Entire school faculties

Mathematics

the BOTTOM LINE

☆ ☆ ☆ ☆

University of Illinois at Chicago – All Learn Mathematics is a comprehensive staff development program focused on improving teachers' content knowledge, pedagogy, and student achievement. Its success in diverse schools within Chicago Public Schools suggests that it is applicable in a wide range of schools and districts. Over a span of three years, teachers received intensive training and classroom support for changing instruction, expanding their understanding of mathematics and sustaining continuous improvement in mathematics within their schools.

Evidence of Student Achievement

SUCCESS INDICATORS

- Standardized tests

Evidence of increased student achievement was gathered from the Iowa Test of Basic Skills in grades 3-5. All seven participating schools' scores in mathematics improved. While the degree of improvement varied, the differences in students performing at or above the national norm at five of the seven schools was statistically significant in 2000 at the end of the three year implementation cycle. At the seven schools increases in the percentage of students scoring at or above the national norm ranged from 5.3% to 42.9%. The percentage decreased in the bottom quartile and ranged from 3.4% to 27.6% across the schools.

In addition to student achievement other visible changes occurred in the seven schools based on classroom observations and interviews. Standards-based curriculum and staff development became priorities. Instruction and assessment improved as teachers implemented the strategies and students demonstrated more critical thinking. Students shared strategies for solving problems.

Project Director

Mary Jo Tavormina-Porn
Project Director
University of Illinois at Chicago
845 West Taylor (m/c 248)
Chicago, IL 60607


Phone: (312) 996-8820


Fax: (312) 996-9874


E-mail: mporn@uic.edu


Web site:
www.math.uic.edu/IMSE/ALM/alm.html

Sample Sites

SITE #1

Shirley Guidry
Thomas A. Hendricks Community Academy
4316 South Princeton Avenue
Chicago, IL 60609

phone: (773) 535-1696
fax: (773) 535-1700
e-mail: carol.r.gearring@cps.k12.il.us
(school principal's e-mail address)
web site: www.cps.k12.il.us

SITE #2

Victor Marcionetti
D.R. Cameron Elementary School
1234 North Monticello Avenue
Chicago, IL 60651

phone: (773) 534-4290
fax: (773) 534-4273
e-mail: florecitavalignota@cps.k12.il.us
(principal)
web site: www.cps.k12.il.us

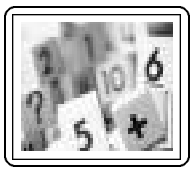
SITE #3

Miryam Assaf-Keller
Henry D. Lloyd School
2103 North Lamon
Chicago, IL 60639

phone: (773) 534-9338
fax: (773) 534-3388
e-mail: drmkeller@yahoo.com
web site: www.cps.k12.il.us

Documentation

University of Illinois at Chicago – All Learn Mathematics (1999). 1999 annual Illinois State Board of Education Grant progress report. Chicago: Author.



Standards for Mathematics

Principles and Standards for School Mathematics
National Council of Teachers of Mathematics, 2000

1. Number and Operations
   Number sense, representation, number systems, computation, estimation

2. Algebra
   Explorations of algebraic concepts and processes

3. Geometry
   The study of geometry of one-, two- and three-dimensions in a variety of situations

4. Measurement
   Extensive concrete experiences using measurement

5. Data Analysis and Probability
   Using data; statistical methodology, inferences and predictions, and concepts of probability

6. Problem Solving
   Numerous and varied experiences with problem solving as a method of inquiry and application

7. Reasoning and Proof
   Reasoning permeated throughout the mathematics curriculum

8. Communication
   Opportunities to communicate

9. Connections
   The investigation of mathematical connections

10. Representation
    Creation and application of representations in mathematics

Table 2: Standards for Mathematics

Ideal programs promote or develop the following standards	Cognitively Guided Instruction	RUSMP Summer Campus Program	TREASUR Math	Univ. of Illinois at Chicago – All Learn Mathematics
• Number and Operations	X	X	X	X
• Algebra	X	X	X	X
• Geometry		X	X	X
• Measurement		X	X	X
• Data Analysis and Probability		X	X	X
• Problem Solving	X	X	X	X
• Reasoning and Proof	X	X	X	X
• Communication	X	X	X	X
• Connections	X	X	X	X
• Representation	X	X	X	X

CHAPTER 7

SCIENCE PROGRAMS

Science Staff Development Programs

Wendell Mohling, Sharon Nelson, and Kim Roempler, Science Programs Review Team

The need for a scientifically literate society has never been more important. Today's citizens are confronted with daily challenges in their lives as they interface with new scientific discoveries and technological innovations. This important need for all citizens to have a fundamental understanding of science was underscored in the development of the National Science Education Standards. These standards and the state frameworks and benchmarks that were guided and influenced by the national consensus effort clearly address the need for all students to understand and to know "how to do" science.

To expand the opportunities for all students to learn science requires additional focus on the teaching of science at the elementary level. In the past, science offerings at the K-6 levels have varied greatly in their quantity and quality. Frequently science was taught as a collection of facts rather than being presented as a process of learning. In recent years many newly developed curriculum programs provide "hands-on and minds-on" learning. Many elementary teachers of science often lack confidence in the subject matter of science since their training provides little opportunity to gain content knowledge. Furthermore, the pedagogical strategies required to implement these new curriculum approaches also require targeted training experiences.

Elements of good staff development were found in many programs that were reviewed for inclusion in this guide. The exemplary programs were unique in that there was a common vision and commitment that was focused on enhancing student achievement. Each of the three selected exemplary programs provided methods for a sustained staff development approach that facilitated the blending of teachers' content knowledge and content-specific pedagogy. Two of the programs were specifically targeted for elementary teacher staff development. The third program incorporated a strong elementary component in delivery of a K-12 staff development model.

Each of the selected programs was similar in its adherence to the criteria by providing the evidence required by the review team. Collectively, the set of selected programs provides attributes of staff development that would challenge concepts of the ideal results based programs. Yet, each of the programs has unique features, and each is adaptable as models for other staff development programs.

One program is designed around one of the curriculum projects mentioned above. Unlike some other staff development programs connected to a curriculum project, the multi-state program offered by the Developmental Approaches in Science, Health and Technology (DASH) focuses on the empowerment of teachers and the readiness of the school site for a sustained professional development experience.

Science Education Enhancing the Development of Skills is a good example of a locally initiated and implemented model that draws upon exemplary elementary science curriculum materials generated by others, including NSF supported projects. Pedagogical content workshops in the areas of biology, chemistry, physical science, and earth science are assisting teachers and leaders are trained to document the accomplishments, including the gains in student assessment.

Iowa Chautauqua is uniquely positioned in its service to the broader K-12 sector. Its extensive (over fifteen years) historical practice and its distribution and impact on hundreds of teachers and thousands of students provides a rich research context certain to inform the designers and deliverers of staff development programs.

It is the desire of the science review team that the study and review of the selected exemplary programs will inform and enhance further growth of quality, results-based, professional development programs.

References

National Research Council. (1995). National science education standards. Washington, DC: Author.

Developmental Approaches in Science, Health, and Technology

Program Description

CONTENT

- Science concepts
- Constructivism
- New roles for teachers
- Instructional strategies

Developmental Approaches in Science, Health, and Technology (DASH) is a comprehensive program for grades K-6 that provides instruction in three content areas: science, health, and technology. DASH is designed to teach a broad spectrum of learners through over 650 interconnected, developmentally appropriate, hands-on activities that use a wide variety of teaching strategies to better address the diversity of student learning styles.

Its extensive professional development program assists teachers with the new standards in science education. There are grade level teaching guides and support activities that assist teachers in providing a sequential, multigrade, spiral curriculum that enables students to construct their understanding of the basic concepts and skills of sciences, health, and technology. The curriculum includes 10 clusters at each grade level under the titles Learning; Time, Weather, and Sky; Animals; Plants; Food and Nutrition; Health and Safety; Wayfinding and Transportation; Energy and Communication; Conservation, Recycling, and Decomposition; and Matter, Space, and Construction. While primarily a curriculum program, DASH cannot be implemented without the extensive pre-implementation professional development and sustained, ongoing support for teachers as they implement the curriculum.

Program Context

CONTEXT

- Wide range of schools
- Wide range of student populations

DASH is currently being used by over 11,000 teachers in approximately 2,500 schools in 26 states including rural, urban, and suburban districts representing students with diverse economic, linguistic, and ability levels. Students using DASH include Title I students, some designated as special needs, and those with limited English proficiency. It is included in the Catalog of School Reform Models: 1st Edition (1998).

Staff Development Program

To realize the levels of achievement set in the National Science Standards, DASH provides effective curricular programs, pre-implementation professional development for teachers, and long-term, sustained support services. Teachers implementing DASH are required to participate in a 10-day, 70-hour institute prior to program use. Classroom materials are only available to teachers who meet this requirement.

Five standards-based professional development components are built into the program's plan. 1) Awareness/Outreach varies in length and number of activities completed and depends on schools' readiness and resource availability. This phase familiarizes school staff with the program's content and instructional methods and provides information for key decision makers. 2) Commitment building helps the school and district identify target populations, match DASH to local and state standards, and prepare the staff for program implementation success. 3) Teacher training on three levels includes teacher institutes, local coordinator training, and certified instructor training. Teacher institutes are designed to facilitate teachers' understanding of the standards-based content, the constructivist theory, and course objectives; assist teachers in mastering research-based instructional strategies and new roles for the teacher; and provide participants with subject matter information and background as needed. 4) Implementation support helps teachers institutionalize change and includes coaching, science teacher meetings, mobilizing local resources, problem solving, visitations, consultations, discussions, feedback, etc. 5) Institutionalization is designed to help teachers continue to develop intellectually and professionally through association with other experienced teachers. This support is provided through an 800 support number, online networks, teacher as researcher projects, and online courses.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Online support
- Online courses

INTENDED AUDIENCE

- Entire school faculties

Science

the BOTTOM LINE

☆ ☆ ☆ ☆

Developed by the Curriculum Research and Development Group at the University of Hawaii at Manoa, DASH is a well-developed and well-established elementary science, health, and technology program. Since its inception in 1986 the program has been widely replicated throughout the United States and in other countries. It can be replicated easily because of its low cost, clear instructional plan, and extensive support materials. It has proven successful with very diverse student populations.

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests
- Teacher surveys

Evidence of Student Achievement

Multiple studies of DASH over the last decade have provided evidence of its impact on student achievement in urban, rural, and suburban sites and with widely diverse student populations.

In 2001, the Expert Panel on Mathematics and Science released the results of its review of 27 science programs submitted to it for evaluation. It found that DASH was one of seven programs recommended as promising because it provided evidence that students in grades K-5 at five sites (14 case studies) demonstrated an understanding of fundamental science concepts and the use of essential skills such as inquiry and data-gathering techniques, and integration and application of science concepts. The evidence was provided from a multiple case study evaluation and supported with evidence from observations, artifacts, and some data on student achievement in the form of comparisons of standardized test score data for DASH students with state and district data and pre- and post-test DASH scores in one district.

In its submission to the National Diffusion Network in 1993, DASH provided evidence of its impact on student achievement. It cites authentic assessments through students' artifacts and classroom assessments of students' achievement of the science standards. In one cohort of schools in Pennsylvania within the four 1st grade classes where DASH was implemented, students outperformed students in the three classrooms where DASH was not being implemented. A larger percentage of students (mean=77.5) in the DASH classrooms scored at the 7th, 8th, and 9th stanine compared to the non-DASH classroom (mean=44.66).

Project Director

Frank Pottenger
Project Director
University of Hawaii at Manoa
1776 University Avenue
VHS2-201
Honolulu, HI 96822


Phone: (800) 799-8111 or
(808) 956-6918


Fax: (808) 956-4933


E-mail: frankp@Hawaii.edu


Web site: www.hawaii.edu/crdg

Sample Sites

SITE #1

Jim Zullinger
Grace B. Luhrs University Elementary School
Shippensburg University
1871 Old Main Drive
Shippensburg, PA 17527

phone: (717) 477-1612
fax: (717) 477-4072
e-mail: pfdill@wharf.ship.edu
(school principal's e-mail address/Phillip Diller)
web site: www.ship.edu/~suchild/

SITE #2

Susan Gieseke
Sacred Heart School
501 St. Louis Street
Florissant, MO 63031

phone: (314) 831-3372 x236
fax: (314) 831-2844
e-mail: gieseke@sacredheart-florissant.org
web site: n/a

SITE #3

Carol Ann Brennan
UH Lab School
University of Hawaii
1776 University Avenue
Honolulu, HI 96822

phone: (808) 956-6918
fax: (808) 956-4933
e-mail: carolb@hawaii.edu
web site: www.hawaii.edu/crdg

Documentation

Curriculum Research & Development Group. (1999, March). Developmental Approaches in Science, Health, and Technology: Submission to the Expert Panel on Mathematics and Science Education. Manoa, HI: University of Hawaii at Manoa.

Curriculum Research & Development Group. (2001). Developmental Approaches in Science, Health, and Technology: A summary of evaluations. Manoa, HI: University of Hawaii at Manoa.

Kentucky Department of Education. (1997). Results-based practices showcase. Frankfurt, KY: Author.

Northwest Regional Educational Laboratory. (1998). Catalog of school reform models, (1st Ed.). Portland, OR: Author.

Iowa Chautauqua

Program Description

CONTENT

- Science concepts related to science, technology, and society
- Processes of science
- Application of concepts and processes
- Constructivist Learning Model
- Teacher leadership

Iowa Chautauqua Program is a model of professional development designed to assist teachers in changing their goals, curriculum, and teaching strategies in science classrooms. Developed in 1983, the program has expanded to 17 states and serves approximately 250 teachers annually.

The program is designed to provide teachers with an understanding of the relationships among science, technology, and society and to engage students more actively through a constructivist approach to science. The goals are to improve teachers' understanding of basic science concepts, change the focus of teachers so their instruction is more congruent with features of basic science, and develop teachers as leaders who can help their students improve in six domains of science education:

1. Concept Domain, mastering the basic content constructs;
2. Process Domain, learning skills scientists use as they seek answers to their questions about the universe;
3. Application Domain, using concepts and processes in new situations;
4. Creativity Domain, improving the quantity and quality of questions, explanations, and tests for the validity of personally generated explanations;
5. Attitude Domain, developing more positive feelings concerning the usefulness of science, science study, science teachers, and science careers; and
6. World View Domain, how the efforts assist students with understanding and ability to use basic science including questioning, explaining, and testing.

Program Context

CONTEXT

- 16 states
- Over 700 school districts
- 13 countries
- 3000 teachers

Iowa Chautauqua Program has been implemented in over 700 school districts in 16 states and has affected almost 200,000 students and 3000 teachers in its 18-year history. Since 1990, the program has also been operational in 13 other countries. Many states have modified the Iowa Chautauqua Program for implementation in local schools and districts. The program is used with a wide variety of student populations in diverse school and district settings.

Staff Development Program

The staff development program includes several components. It begins with a two-week leadership conference for the most successful participants from the previous year who wish to become a part of the instructional team as lead teachers for future summer workshops. The three-week summer workshop offers teachers the opportunity to become students of science and to experiment with new instructional strategies, as well as time to plan a five-day unit to be used with students in the fall. Following the workshop, teachers are expected to implement the unit and to participate in a two and one-half day fall short course that focuses on developing a month-long teaching module and assessment planning. Continuous communication between lead teachers and the participants occurs throughout the remainder of the school year and includes newsletters, classroom visits, monthly telephone contacts, and special memoranda. A two and one-half day spring short course rounds out the year-long professional development plan. It focuses on teachers' reflections about their experiences and the results of the assessment program.

In addition to the professional development for participants, lead teachers participate in one or more action research projects during the school year. This model allows continuous development of teachers and is based on a "teachers teaching teachers" approach.

PROCESS

- Constructivist Learning Model
- Summer workshop
- Teacher planning
- Ongoing follow-up and support
- Leadership conference
- Action research

INTENDED AUDIENCE

- Individual volunteer teachers
- Teacher teams

Science

the BOTTOM LINE

☆ ☆ ☆ ☆

Iowa Chautauqua Program links staff development to student and teacher learning. While some have been critical of the research methodology used to measure results, the extensive replication and widespread implementation of the program speaks of its success. What is particularly noteworthy about this program is the continuous emphasis on assessing student results and the use of program-specific assessment approaches that provide annual information about the program's success.

SUCCESS INDICATORS

- Program-developed assessments
- National Assessment of Educational Progress
- Attitude surveys

Evidence of Student Achievement

When compared to traditional classrooms where teachers use an "information transmission" model of teaching, Iowa Chautauqua Program has significantly improved students' performance in science in five of six domains (see the six domains in the Program Description). These results indicate that while students' content knowledge of science (Domain #1) is not significantly different in Iowa Chautauqua Program classrooms and in traditional classrooms, students are, in fact, learning more in Iowa Chautauqua Program classrooms because they are significantly increasing their performance from pre- to post-test in each of the other five domains when compared to the performance of students in traditional classrooms. Program-developed assessments are administered to all students in a pre-test/post-test format to determine student growth in each domain.

The program has increased students' performance in all five domains while not losing growth in students' understanding of science concepts. Iowa Chautauqua Program, when compared to a control group of teachers, has also successfully increased teachers' confidence as science teachers and developed science teachers who more frequently use and understand the features of basic science and who are more encouraging to their students about the basic ingredients of science.

Project Director

Robert Yager
Director
The University of Iowa
769 Van Allen Hall
Iowa City, IA 52242


Phone: (319) 335-1189


Fax: (319) 335-1188


E-mail: robert-yager@uiowa.edu


Web site: www.universityofiowa.com
via Science Education Center

Sample Sites

SITE #1

Jan Drees
The Downtown School
500 Grand Avenue
Des Moines, IA 50309

phone: (515) 284-5848
fax: (515) 284-0890
e-mail: jdrees@downtownschool.org
web site: www.downtownschool.org

SITE #2

Ruth Kempe
Northeast Community School District
Box 130, 1450 370th Avenue
Goose Lake, IA 52750

phone: (563) 522-2008 x543
fax: (563) 577-2450
e-mail: ruth_kempe@northeast.k12.ia.us
web site: www.northeast.k12.ia.us

Documentation

Dass, P., & Yager, R. (1997, Summer). Iowa Chautauqua Program final performance report. Iowa City, IA: Authors.

Iowa Chautauqua Program: An exemplary staff development program for improving K-12 science teaching. (1999). Iowa City, IA: Author.

Killion, J. (1999). The Iowa Chautauqua Program. In What works in the middle: Results-based staff development (pp. 118–121). Oxford, OH: National Staff Development Council.

Yager, R. (Ed.). (1996). Science/technology/society as reform in science education. Albany, NY: State University of New York Press.

Yager, R., Myers, L., Blunck, S., & McComas, W. (1992). The Iowa Chautauqua Program: What assessment results indicate about STS instruction. Bulletin of Science, Technology & Society, 12(1), 26–38.

Science Education Enhancing the Development of Skills

Program Description

CONTENT

- Hands-on science
- Higher-order thinking skills
- Science content
- Assessment
- Leadership
- Coaching

Science Education Enhancing the Development of Skills is a community-driven and teacher-led initiative that has changed elementary science instruction in Stark County, Ohio. It is a collaborative effort involving 16 school districts and three private schools and several educational organizations and the local university. The program's goal is to improve students' science achievement through the implementation of a curriculum that incorporates activities, science processes, and thinking skills.

The curriculum is based on a learner-centered instructional model entitled, "Honor the Wisdom of the Child." The parallel professional development program is built on the model, "Honor the Wisdom of the Teacher." Students are viewed as workers, thinkers, constructors of knowledge, collaborators, and presenters. Teachers are involved in all aspects of the program from vision building to training and evaluation for continuous improvement.

The unique features of this collaborative program are: reform driven by the business community; collaboration across diverse districts; diverse roles of teachers in all aspects of the program; networking of teachers and dissemination of resources through electronic communication systems; and its combination of innovations for instruction and curriculum.

Program Context

CONTEXT

- Variety of different school contexts
- Variety of different students
- Rural, urban, and suburban schools

Over 1000 teachers from rural, urban, and suburban communities in six towns and three private schools in Stark County, Ohio, are involved. In it s10-year history, the project has served 75 schools, 25,000 students, and 1000 teachers. Districts ranged in size from 1000 to 6300 students with minority populations ranging from .4% to 20% and economically disadvantaged students ranging from 2% to 25%.

Staff Development Program

The staff development program provided with Science Education Enhancing the Development of Skills involves teachers in over 100 hours of training over a five-year period. Teachers develop a personal development plan and choose from among the following options for their plan: Immersion or Kit training (30 hours offered in the summer); Study Groups/Action Research (15 hours during the school year); or pedagogical content workshops in the areas of biology, chemistry physical science, or earth science (30 hours in the summer). Additional options ranging from 6 to 30 hours are related to technology, integration with other content areas, assessment, and differentiation of instruction. Forty-seven percent of the teachers participated in two or more years of action research.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation

The staff development model provides teachers opportunities to become leaders, trainers, facilitators of change, reflective practitioners, members of a collegial learning community, and supporters of long-term continuous improvement. The professional development involved the use of videotaped lessons, modeling, reflection, coaching, and evaluation.

INTENDED AUDIENCE

- Individual teachers
- Teacher teams
- Grade level teams

Lead teachers and leadership teams offered another opportunity for teachers to assume different roles. Lead teachers received specialized training to support their colleagues and to lead the district leadership team. They provided training to other teachers, facilitated action research seminars and study groups, developed student assessments, and contributed to the development of local curricula.

The combination of strong curriculum and intensive sustained professional development as is evident in Science Education Enhancing the Development of Skills improves students' performance and teachers' classroom practice. The opportunities for teachers to assume multiple roles as leaders, trainers, coaches, curriculum developers, and facilitators is a strength of the staff development design for this program. Teachers deepened their understanding of science, science pedagogy, and leadership through the project's professional development. Another strong feature of the project is the countywide collaboration. The professional development model is now being applied to mathematics, social studies, language arts, and secondary science.

SUCCESS INDICATORS

- Criterion-referenced tests
- Teacher surveys
- Classroom observations

Evidence of Student Achievement

Annual student performance on the Ohio state science proficiency assessment in grades 4 and 6 indicate steady growth and consistently higher performance by Stark County students than the state. The test requires higher-level thinking more than factual recall of data and assesses the strands of nature of science, physical science, earth and space science, and life science. From the beginning of the project in 1995, 4th grade student achievement has risen from 44% of the students passing the state assessment to 76% of the students passing in 2002. The 6th grade passing rate has risen from 47% to 71%. In all cases, the state's average scores were lower, and sometimes by as much as 10%.

In addition to performance on state assessments, teacher classroom practices changed. Teachers more regularly used hands-on science activities, cooperative learning groups, discussion, and open-ended questions. Teachers reported increased pedagogical preparedness for using performance-based assessments, hands-on science, informal assessments, helping students take responsibility for their own learning, and using students' prior knowledge in planning lessons.

Project Director

Jane Hazen Dessecker
Director of Instructional Services
Stark County Educational Service Center
2100 38th Street Northwest
Canton, OH 44709


Phone: (330) 492-8136


Fax: (330) 492-9138


E-mail: hazen@sparcc.org


Web site: www.stark.k12.oh.us

Sample Sites

SITE #1

Teresa J. Purses
Canton Local School District
4526 Ridge Southeast
Canton, OH 44707-1118

phone: (330) 484-8010
fax: (330) 484-8032
e-mail: Purses@cantonlocal.org
web site: http://maccat.stark.k12.oh.us

SITE #2

Susan M. Boon
Lake Local School District
12077 Lisa Avenue Northwest
Hartville, OH 44632

phone: (330) 877-4293
fax: (330) 877-4754
e-mail: boonsue@lake.stark.k12.oh.us
web site: http://lake.stark.k12.oh.us

SITE #3

Nancy Varian
Magnolia Elementary School
514 Harrison Street
Box 397
Magnolia, OH 44643

phone: (330) 866-9225
fax: (330) 866-2572
e-mail: NAV98SV@cardnet.stark.k12.oh.us
web site: http://cardweb.stark.k12.oh.us

SITE #4

R. Michael Daulbaugh
Minerva Local Schools
501 Almeda Avenue
Minerva, OH 44657

phone: (330) 868-5855
fax: (330) 868-5973
e-mail: rmd2@minerva.stark.k12.oh.us
web site: http://lion.stark.k12.oh.us

Documentation

Boon, S. (1996). A staff development program to support implementation of a hands-on, inquiry-based science program. Unpublished Master's Thesis. Ashland, OH: Ashland University.

Dessecker, J. (2001). SEEDS final principal investigator's report to the National Science Foundation. Unpublished report. Canton, OH: Stark County Educational Service Center.

Galloway, B. (1999). The art of learning science: Kids get to experiment. The Akron Beacon Journal. (1999, September 19), Section E, p. 1.

Standards for Science

National Science Education Standards, 1996

1. Unifying Concepts and Processes

Develop understanding and abilities related to:

- Systems, order, and organization
- Evidence, models, and explanations
- Constancy, change, and measurement
- Evolution and equilibrium
- Form and function

2. Science as Inquiry

- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

3. Physical Science

- Properties/changes of properties in matter
- Motions and forces
- Transfer of energy

4. Life Science

- Structure and function in living systems
- Reproduction and heredity
- Regulation and behavior
- Populations and ecosystems
- Diversity and adaptations of organisms

5. Earth and Space Science

- Structure of the earth system
- Earth's history
- Earth in the solar system

6. Science and Technology

- Abilities of technological design
- Understandings about science and technology

7. Science in Personal and Social Perspectives

- Personal health
- Populations, resources, and environments
- Natural hazards
- Risks and benefits
- Science and technology in society

8. History and Nature of Science

- Science as a human endeavor
- Nature of science
- History of science

Table 3: Standards for Science

Ideal programs promote or develop the following standards	Developmental Approaches in Science, Health, & Technology	Iowa Chautauqua	Science Education Enhancing the Development of Skills
• Unifying Concepts and Processes	X	X	X
• Science as Inquiry	X	X	X
• Physical Science	X	X	X
• Life Science	X	X	X
• Earth and Space Science	X	X	X
• Science and Technology	X	X	X
• Science in Personal and Social Perspective	X	X	X
• History and Nature of Science	X	X	X

CHAPTER 8

Social Studies Programs

Social Studies Staff Development Programs

Mary McFarland, National Advisory Panel, National Council for the Social Studies

Two projects in social studies, We the People ... The Citizen and the Constitution and We the People... Project Citizen, met the selection criteria and demonstrated improved student achievement in the elementary grades. Unfortunately, no other programs in the social studies were nominated.

The two programs included provide professional development that broadens teachers' content and process knowledge in areas such as constitutional themes, principles, and democratic institutions, as well as responsible participation in national, state and local government. The professional development programs include support for teachers as they increase their proficiencies in teaching students to engage in critical thinking, research, problem-solving, issue-framing, and policy formation through instructional strategies such as cooperative learning, and simulated congressional and legislative hearings. Well-developed student materials and the professional development component of the program facilitate teachers' ability to transfer new strategies and highly important content into the classroom.

In addition to addressing significant themes identified by the National Council for the Social Studies in Expectations of Excellence: Curriculum Standards for the Social Studies, these projects also meet important principles of teaching and learning. Teaching and learning are structured around highly meaningful content are integrative, based on significant democratic values, are challenging, and active. Students are engaged in small group work, problem-solving, investigation, and simulation to support in-depth understanding of issues and processes directly related to the importance of social studies learning as it is applied in the world beyond the classroom.

A disappointing finding of this two-year search for projects demonstrating the link between meaningful professional development in social studies and documented student achievement is that only two projects have been identified. This causes us to raise the following questions:

- How can we increase the emphasis on meaningful content-based professional development designed to support student achievement and provide the necessary foundation for social studies learning throughout the elementary grades?

- At a time when citizens have exhibited an exceptional need for knowledge of history, geography, civics, economics and other social studies areas to understand compelling issues and events, should we be able to expect an increasing emphasis on social studies in the curriculum?

- What can local, state, and national officials and funding agencies do to support a greatly increased emphasis on professional development in social studies to ensure student achievement and develop an informed citizenry able and willing to preserve and improve the republic?

To answer these questions and increase the amount and quality of professional development for teachers of the social studies, social studies teacher educators, teachers, and staff development providers and leaders should join together to design additional improved opportunities for teachers to develop their content knowledge in the social studies and expand their content-specific pedagogy. If this occurs, students will benefit.

References

National Council for the Social Studies. (1994). Expectations of excellence: Curriculum standards for the social studies. Washington, DC: Author.

We The People: The Citizen and the Constitution

Program Description

CONTENT

- U.S. Constitution
- Bill of Rights
- Constitutional democracy
- Critical thinking skills
- Problem-solving skills

We the People ... The Citizen and the Constitution enhances students' understanding of the American constitutional democracy and the contemporary relevance of the Bill of Rights by assisting teachers deepen their own content knowledge, have access to instructional resources, and guidelines for using the resources in their classrooms. Student textbooks are appropriate for use with students of all ability levels and may be used as supplemental to or replacement for the regular social studies curriculum. The program emphasizes students demonstrating their understanding of constitutional principles by evaluating, taking, and defending positions of relevant historical and contemporary issues of high interest to students.

The staff development program that accompanies this program focuses on developing teachers' knowledge about the U.S. Constitution and Bill of Rights. In addition, teachers learn appropriate classroom practices for teaching key concepts and thinking skills to students. The program of student curriculum and professional learning is designed to increase students critical thinking, problem solving, and cooperation skills, as well as deepen their understanding of the institutions of the U. S. constitutional democracy so that they become productive, and responsible citizens. Student learning culminates in a simulated congressional hearing in which students "testify" before a panel of judges.

CONTEXT

- Wide variety of student populations throughout the U.S. and its territories
- Wide range of student ability levels
- Varied schools
- Supplemental or regular curricular program

Program Context

We the People ...The Citizen and the Constitution is widely used throughout the United States and the four U.S. territories. With money set aside by Congress, each congressional district is entitled to 25 classroom sets of We the People ... textbooks without any charge. Additional classroom sets are available for purchase at a low cost. The intention is to make these resources that include teacher professional development and student materials available to all schools within the nation.

Staff Development Program

We the People ... The Citizen and the Constitution is based on the assumption that staff development facilitates the implementation of the program. Well-developed instructional materials for students are combined with staff development for teachers to increase students' understanding of constitutional democracy. Teacher training is intended to deepen teachers' own understanding of the Constitution and Bill of Rights and simultaneously familiarize them with the resource materials. The teacher development includes four components: (1) informing teachers about substantive changes in perceptions of or knowledge about the U.S Constitution and Bill of Rights; (2) conducting culminating activity, the competitive or non-competitive simulated congressional hearing; (3) building familiarity with the student textbook and implementation process of the program; and (4) reviewing instructional methods needed to implement We the People ... The Citizen and the Constitution.

PROCESS

- Summer institutes
- Training
- Demonstrations
- Discussions
- Conferences
- Ongoing support

Staff development for teachers who wish to implement the program occurs in several ways. Constitutional scholars teach summer week-long institutes from several fields for social studies teacher educators and social studies teachers. Institutes are held on university campuses in several locations through the U.S. In addition to summer institutes, state coordinators provide training and assistance to support implementation in classrooms throughout each state. Training varies according to the needs of participants. A training manual for state coordinators adds consistency to the dissemination of the program throughout the country and territories.

INTENDED AUDIENCE

- Department teams
- Grade level teams
- Individual teachers

the BOTTOM LINE

☆ ☆ ☆ ☆

We the People ... The Citizen and the Constitution has a positive impact on students' knowledge of constitutional democracy, the U.S. Constitution, and the Bill of Rights. The strength of the program is its combination of teacher professional development, readily accessible student resource materials, and opportunities for students to demonstrate their learning. One drawback to the program is the inconsistency of training from location to location. Not all the local training provided by state coordinators is as in-depth and focused on teacher content development as the summer institutes.

Evidence of Student Achievement

SUCCESS INDICATORS

- NAEP
- Content knowledge tests
- Student attitude tests

Participation in We the People ... The Citizen and the Constitution affects both students' academic achievement and attitudes. An independent study by Educational Testing Service in 1988 and 1991 found that students who participated in the We the People ... The Citizen and the Constitution scored significantly better on a test of knowledge of the history and principles of the U.S. Constitution than students who did not participate in the program. Other studies of students in the middle grades found that students performed better on each of the curricular area tests than did not-participating students. These units included political philosophy, history and experience, issues and debates at Philadelphia, establishment of the government, and basic rights and responsibilities of the citizen.

In 1994, the Council for Basic Education concluded that the culminating activity of a simulated congressional hearing was a model performance assessment. We the People ... The Citizen and the Constitution was approved for dissemination by the Program Effectiveness Panel of the National Diffusion Network.

Project Director

Robert Leming
Director, We The People: The Citizen and the Constitution
Center for Civic Education
5146 Douglas Fir Road
Calabasas, CA 91302


Phone: (800) 350-4223


Fax: (818) 591-9330


E-mail: leming@civiced.org


Web site: www.civiced.org

Sample Sites

SITE #1

Rebecca Reeder
Deer Ridge Elementary School
1515 Scott Road
Fort Wayne, IN 46804

phone: (260) 431-2151
fax: (260) 431-2158
e-mail: reederr@aol.com
web site: www.sacs.k12.in.us

SITE #2

Kathrin Sniffin
Saint Gregory The Great Elementary
85 Great Plain Road
Danbury, CT 06811

phone: (203) 748-1217
fax: (203) 748-0414
e-mail: KMSniffin@aol.com
web site: www.angelfire.com/ct/stgregory

SITE #3

Yvonne Thomas-Keeton
Green Valley Elementary
4100 Jericho
Denver, CO 80249

phone: (303) 307-1659
fax: (303) 764-7589
e-mail: yvonne_thomaskeeton@dpsk12.org
web site: www.dpsk12.org/

SITE #4

Linda Bergin
Lukas Elementary School
9650 W. 97th Ave.
Westminster, CO 80021

phone: (303) 982-0368
fax: (303) 982-0369
e-mail: lbergin@jeffco.k12.co.us
web site: www.jeffco.k12.co.us

Documentation

Council for Basic Education. (1994). A report on the impact of We the People ... The Citizen and the Constitution. Washington, DC.

Educational Testing Service. (1991). An evaluation of the instructional impact of the elementary and middle school curricular materials for the National Bicentennial Competition on the Constitution and the Bill of Rights. Pasadena, CA: Author.

We the People: Project Citizen

Program Description

CONTENT

- Local and state government
- U.S. history
- Principles of the U.S. Constitution
- Civic participation

We the People ... Project Citizen is a portfolio-based civics education project for intermediate and middle grade students in grades 5-8. It focuses on promoting an understanding of as well as responsible participation in state and local governments. Project Citizen actively engages students in learning how to monitor and influence public policy, and advocates civic participation of students, their parents, and members of the community. The U.S. Congress funds the project.

We the People ... Project Citizen combines well-developed curriculum materials for students with staff development for teachers to increase students' understanding of the role of state and local governments in the American federal system. Teachers learn to provide a series of structured cooperative learning activities that help students to interact with their government in a five-step process that includes: 1) identifying a public policy problem in their community; 2) gathering and evaluating information on the problem; 3) examining and evaluating solutions; 4) selecting or developing a proposed public policy; and 5) developing a plan of action. The program has been expanded to allow for the possibility of implementing students' action plans.

In addition to classroom activities, as a culminating activity students participate in simulated legislative hearings before a panel of community representatives who act as legislative committee members.

Program Context

CONTEXT

- Wide range of state, district, and school settings
- Students with diverse academic skills
- Sometimes is an extracurricular activity

Since 1995-96, 5000 teachers in all 50 states and Washington, D.C. have used Project Citizen in their classrooms. Over 400,000 students have participated in Project Citizen. Project Citizen can be adapted for a wide range of student ability levels. It is appropriate for use in grades 5-8. In some cases, We the People ... Project Citizen is used as an extracurricular activity rather than a core curriculum program. This practice is encouraged by the Center for Civic Education.

Staff Development Program

As We the People ... Project Citizen has matured, the staff development program has grown more consistent. The teacher training is usually arranged by state coordinators who are responsible for distributing materials and providing leadership for statewide use. Many state coordinators also serve in the capacity of trainer. Center for Civic Education consultants provide additional assistance to schools and state coordinators.

An extensive professional development manual includes demonstration lessons that may be used in the training or in classrooms with students. The focus of the training is 1) understanding the content and structure of We the People ... Project Citizen; 2) assessing students portfolios and oral presentations; 3) using instructional strategies appropriate to the program; and 4) demonstrating and debriefing sample learning activities.

Training approaches vary widely, from one-hour presentation to comprehensive and substantive sessions that focus on transforming the classroom into an interactive environment that engages students in "real" social and political issues. Regardless of the type of training, follow-up is essential to ensure implementation and is supported by a network of state leaders and teachers.

The most valuable training for teachers includes a step-by-step review of the Project Citizen materials, examination of student and class portfolios, discussions of ways to integrate Project Citizen into the existing curriculum and classroom, demonstrations for Project Citizen steps, and hands-on opportunities for teachers to engage in the experience as both teachers and students of the content and process.

PROCESS

- Review of program materials
- Analysis of student portfolios
- Curriculum redesign
- Demonstration activities
- Support from state coordinators

INTENDED AUDIENCE

- Individual volunteer teachers
- Grade level teams
- Department teams

the BOTTOM LINE

☆ ☆ ☆ ☆

We the People ... Project Citizen improves students' knowledge and understanding of active citizenship and public policy. It is based on well-designed materials, curriculum, and staff development to improve students' achievement in social studies. The staff development program is expanding to facilitate implementation of the content and instructional strategies that engage young adolescents in authentic work within their community. The evidence strongly supports the effectiveness of Project Citizen as a program that is appropriate for young adolescents in grades 5-8.

SUCCESS INDICATORS

- Civic involvement
- Project development tests of knowledge of history and principles of the U.S. Constitution

Evidence of Student Achievement

In 1999-2000, a study of researchers at the Indiana University measured Project Citizen's effects on civic development defined as "one's achievement of civic knowledge, civic skills, and civic dispositions (enabling) responsible and effective participation by citizens of their democracy." The study included students in Indiana, Latvia, and Lithuania. Researchers found that in all three nations Project Citizen had a 1) positive and statistically significant effect on students' civic knowledge with no significant differences among nations; 2) positive and significant effects on students' self-perceived civic skills; and 3) positive and significant effect on students' propensity to participate in civic and political life.

In 1997-98, the University of Texas, Austin, Lyndon B. Johnson School of Public Affairs conducted an extensive assessment of We the People ... Project Citizen. Specifically, the assessment revealed that students using Project Citizen believe that they can make a difference in their communities, do make a difference in their communities, and enjoy Project Citizen. Further, students and teachers believe that Project Citizen helps students develop a greater understanding of public policy and the challenges of policymakers helps students learn how their government works and develops commitment to active citizenship and governance; involves students in their communities and helps students learn about specific community problems; encourages students to work in groups; teaches students important communication skills; and teaches students research skills.

Project Director

Michael Fischer
Director, Project Citizen
Center for Civic Education
5146 Douglas Fir Road
Calabasas, CA 91302-1467


Phone: (800) 350-4223 or
(818) 591-9321


Fax: (818) 591-9330


E-mail: fischer@civiced.org


Web site: www.civiced.org

Sample Sites

SITE #1

Maria Elena Keenan
Miami-Dade County Public Schools
1500 Biscayne Boulevard
Miami, FL 33132

phone: (305) 995-2498
fax: (305) 995-1492
e-mail: MERamirez@SBAB.Dade.k12.fl.us
web site: www.dade.k12.fl.us

SITE #2

Sally J. Broughton
Monforton Elementary School
6001 Monforton School Road
Bozeman, MT 59718

phone: (406) 586-1557
fax: (406) 587-5749
e-mail: monfort@mcn.net
web site: n/a

SITE #3

Michael A. Trofi
John F. Deering Elementary
Webster Knight Drive
West Warwick, RI 02893

phone: (401) 822-8445
fax: (401) 822-8474
e-mail: rid22891@ride.ri.net
web site: n/a

Documentation

Lyndon B. Johnson School of Public Affairs (1998). An assessment of We the People ... Project Citizen. Policy Research Project Report #129. Austin, TX: The University of Texas at Austin.

Vontz, T., Metcalf, M., & Patrick, J. (2000). ERIC Clearinghouse for Social Studies/Social Science Education. Bloomington, Indiana: Indiana University.

Standards for Social Studies

Expectations of Excellence: Curriculum Standards for Social Studies
National Council for the Social Studies, 1994

1. Culture and Cultural Diversity
   How human beings create, learn, and adapt culture

2. Time, Continuity, and Change
   The ways human beings view themselves in and over time

3. People, Places, and Environments
   Understanding of spatial views and geographic perspectives of the world

4. Individual Development and Identity
   How personal identity is shaped by one's culture, groups, and institutional influences

5. Interactions Among Individuals, Groups, and Institutions
   How institutions influence human beings

6. Power, Authority, and Governance
   How people create and change structures of power, authority, and governance

7. Production, Distribution, and Consumption
   How people organize for the production, distribution, and consumption of goods and services

8. Relationships Among Science, Technology, and Society
   The role and influence of science and technology in society

9. Global Connections and Interdependence
   Understanding of the important and diverse global connections among world societies

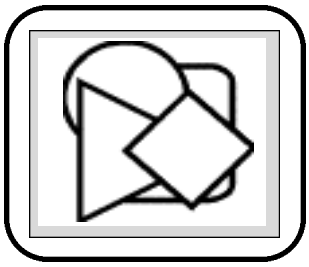
10. Civic Ideals and Practices
    The ideals, principles, and practices of citizenship in a democratic republic

Principles of Teaching and Learning:

Social Studies teaching and learning are powerful when they are meaningful, integrative, value-based, challenging, and active.

Table 4: Standards for Social Studies

Ideal programs promote or develop the following standards	We the People: The Citizen and the Constitution	We the People: Project Citizen
• Culture and Cultural Diversity	X	
• Time, Continuity, and Change	X	
• People, Places, and Environments	X	X
• Individual Development and Identity	X	X
• Interactions Among Individuals, Groups, and Institutions	X	X
• Production, Distribution, and Consumption	X	
• Relationships Among Science, Technology, and Society		
• Global Connections and Interdependence		
• Power, Authority, and Governance	X	X
• Civic Ideals & Practices	X	X
• Principles of Teaching and Learning	X	X



CHAPTER 9

INTERDISCIPLINARY PROGRAMS

Interdisciplinary Staff Development Programs

The seven interdisciplinary programs included in this section cross the boundaries of the individual disciplines. Each one either addresses more than one discipline or the application of one discipline to multiple subject areas Because the elementary curriculum is more fluid, teachers often find ways to naturally integrate the disciplines and reinforce concepts across disciplines in the elementary grades.

Six of the programs are based in the application of reading and writing skills as learning processes to assist students in processing and retaining information. Different Ways of Knowing, Expeditionary Learning Outward Bound (ELOB), For the Children: Practices Leading to Performance, Project CRISS, Questioning the Author, and Reading Power in the Content Areas measure their impact in terms of students' performance in reading. Two programs, For the Children: Practices Leading to Performance and and Teachers Academy of Mathematics and Science (TAMS), measure their impact in terms of student performance in mathematics. Teachers Academy of Mathematics and Science (TAMS) also documents student growth in science. Different Ways of Knowing also measures student success in the arts and humanities.

The interdisciplinary programs incorporate explicit staff development for teachers of all disciplines who might integrate instruction across content areas as a way of improving student learning. For elementary students to find meaningfulness in their learning, opportunities to apply knowledge and skills in multiple disciplines and across disciplines is one way to increase students' motivation to learn and gives them more opportunities for authentic applications of learning than the primary discipline might provide. For example, if students write in mathematics to explain their thinking in solving a problem, they are practicing both mathematics and language arts skills.

The wisdom of integrating more curricula beyond the traditional one or two courses of study might be beneficial to students in helping them develop a deeper understanding of the interrelationships that exist across disciplines. In the elementary grades the nature of the school day and curriculum provide teachers more opportunities to integrate knowledge and skills across the curriculum. Students have more chances to apply their learning. What these interdisciplinary programs do to support teacher learning is to assist them in providing sound curriculum and learning processes to support student engagement, attainment of content area standards, and reinforcement of the essential nature and purpose of many basic skills.

Different Ways of Knowing

Program Description

CONTENT

- Instructional strategies
- Interdisciplinary curriculum
- Literacy-focused curriculum
- Higher-order thinking skills
- School reform
- Involving families and community members
- Instructional leadership

Different Ways of Knowing for the elementary grades is a research-based and validated comprehensive school reform initiative for grades K-6. It is both a curriculum and staff development program. The curriculum integrates social studies and history with language arts (literature, writing, reading, listening, and speaking); the visual, performing, and media arts; math and science. The program helps teachers reach every child through modules of instruction built around a four-phase recursive learning model. The four phases are 1) exploring what students already know, prior knowledge; 2) helping students to get smarter through research; 3) helping students to become experts by researching deeply on a subject to have information to share; and 4) making connections between the classroom and the outside world.

Teachers and principals who use Different Ways of Knowing participate in concentrated and ongoing support programs to provide time for planning and opportunities to learn together, ranging from annual institutes, seminars, and workshops to in-classroom demonstrations, coaching, and technical assistance. Teachers and principals are also provided with professional development opportunities in instructional leadership. The Galef Institute works intensively with schools and districts in participating in the program over a three- to five-year period to support implementation.

Program Context

CONTEXT

- Wide variety of schools and districts
- Wide range of students including English language learners and special education students

Different Ways of Knowing has been implemented in a wide variety of schools ranging from urban, rural, and suburban. It has been implemented in schools and districts that serve low income, high minority students and English language learners and special education students. It has been implemented in 675 schools in 24 states.

Staff Development Program

The staff development associated with the implementation of Different Ways of Knowing is provided by The Galef Institute and is designed in collaboration with the local sites in order to best meet their local goals and needs. The focus is on building the schools' and districts' capacity for planning, goal-setting, training, and data-driven decision making. Each site has an interdisciplinary team of coaches who provide local training and support.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Evaluation

Both the principal and a local team of interdisciplinary coaches receive training in instructional leadership. The initial training for teachers consists of a minimum of three days and is followed up with three to four day one-day workshops conducted through the first year of implementation. All staff members and family and community members participate.

School staffs receive monthly visits from the Different Way of Knowing interdisciplinary coaches who are teacher instructional leaders and art educators. They observe in classrooms, provide feedback to teachers, give demonstration lessons, and facilitate group study meetings. Over time the local school coaches assume this role.

INTENDED AUDIENCE

- Entire school faculties

In addition to the local training and support, teachers, principals, specialists, families, and community members build partnerships with other districts or schools in their region who are participating in Different Ways of Knowing, may attend national conferences, have access to the program's web site, and receive the newsletter. The Galef Institute also facilitates ongoing assessments of implementation and provides support in conducting program evaluation.

the BOTTOM LINE

☆ ☆ ☆ ☆

As a comprehensive school reform program, Different Ways of Knowing builds individual teachers' and principals' capacity to support school reform while transforming teaching and learning for students. By offering students an integrated curriculum and active and highly engaging instruction, students perform better not only in the core content areas but in all areas as well. The intensive support and coaching over three to five years supports deep change in school and classroom practices.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests

A number of studies indicate the success of Different Ways of Knowing. In a three-year comparison study, UCLA found a positive correlation between students' test scores and their number of years in Different Ways of knowing. Specifically, students demonstrated significant gains in vocabulary, comprehension, and other measures of language arts, with an average of 8 percentile points higher on standardized tests for each year of participation. Scores on written tests of social science knowledge increased by one-half point for students who participated in Different Ways of Knowing compared with nonparticipating students.

In another study of statewide assessments of 4th graders in 24 schools over two years, researchers at the University of Louisville and Kentucky found that Different Ways of Knowing students had 7% greater gains in reading and arts and humanities compared to 4th graders statewide, 10% higher increases in social sciences; 25% higher gains in math, and 7% higher gains in science over two years.

A third study was conducted in the San Francisco Unified School District, involving just over 3000 students in 11 schools, 87% of whom were students of minority backgrounds. Approximately one-third were from high-poverty homes. The data indicate that these students showed significant improvement in reading (more than a year's growth in reading comprehension). Similar results were found in studies conducted in Ann Arbor, Michigan, and Los Angeles, California.

Project Director

Linda Johanneson
The Galef Institute
5670 Wilshire Boulevard, 20th Floor
Los Angeles, CA 90036-5623


Phone: (323) 525-0042


Fax: (323) 525-0408


E-mail: ljc@galef.org


Web site: www.galef.org

Sample Sites

SITE #1

Alfonso Gamino
Eastside Elementary School
6742 East Avenue H
Lancaster, CA 93535

phone: (661) 946-3907
fax: (661) 946-5431
e-mail: Agamino@eastside.k12.ca.us
web site: n/a

SITE #2

JoLene Heibel
Betz Elementary School
605 West 27th Avenue
Bellevue, NE 68005

phone: (402) 293-4585
fax: (402) 293-5702
e-mail: joheibel@hotmail.com
web site: www.esu3.k12.ne.us/districts/bellevue.betz.html

SITE #3

Chris Bogdanow
Jason Lee Elementary School
2222 Northeast 92nd Avenue
Portland, OR 97220

phone: (503) 916-0144
fax: (503) 916-2650
e-mail: bogdanow@pps.k12.or.us
web site: www.pps.k12.or.us

SITE #4

Diana De La Rosa
Roy P. Benavidez Elementary School
6262 Gulfton
Houston, TX 77081

phone: (713) 778-3350
fax: (713) 778-0058
e-mail: ddelaros@houstonisd.org
web site: http://es.houstonisd.org/benavidezES

Documentation

Catterall, J. (1995). Different Ways of Knowing: 1991-94 longitudinal study of program effects on students and teachers. Los Angeles, CA: University of California at Los Angeles.

Catterall, J., Dreyfus, J., & DeJarnette, K. (1995). Different Ways of Knowing: 1994-1995 evaluation report. Los Angeles, CA: University of California at Los Angeles.

Kentucky Department of Education and the Kentucky Collaborative for Teaching and Learning (1998). Comparison of schools receiving Title I funds and schools participating in Different Ways of Knowing: Analysis of KIRIS data for Kentucky elementary schools. Frankfort, KY: Author.

Expeditionary Learning Outward Bound

Program Description

CONTENT

- Discipline-specific content
- Learning expeditions
- Classroom culture
- Assessment
- Teacher leadership
- Leadership
- Instructional strategies
- Core design principles
- Literacy

Expeditionary Learning Outward Bound is a program of whole school improvement that incorporates extensive content-specific professional development for teachers. The program is designed for students in grades K–12 to challenge them to achieve their personal best and meet rigorous academic and character standards in an environment that values adventure and service-based education. Through ongoing professional development and technical assistance, Expeditionary Learning staff members collaborate with a school's entire community to strengthen instruction and school culture, engage students in multidisciplinary explorations, and assess and raise achievement.

At the heart of the program's design is the learning expedition: a purposeful, in-depth study of a single topic or theme. Teachers design and implement standards-based learning expeditions that involve challenging projects, fieldwork, and service. Expeditions culminate with an exhibit, performance, or piece of work. Teachers work in collaborative teams to plan their expeditions, critique each other's work, and analyze student portfolios. The program is based on 10 design principles and five core practices that guide the work of teachers, students, and community supporters.

Program Context

CONTEXT

- Diverse school settings
- Rural and urban schools
- K–12 schools
- Diverse student populations
- 29 states
- 114 schools

Expeditionary Learning Outward Bound is currently working with 114 schools in 29 states, the District of Columbia, and the Commonwealth of Puerto Rico. Fifty-five of the schools serve elementary students. Twenty-six serve high school students. Expeditionary Learning has been implemented with success in a variety of schools, including urban and rural schools, schools in large and small districts, small charter schools, and both affluent and high-poverty schools.

Staff Development Program

The staff development associated with Expeditionary Learning Outward Bound (ELOB) assists teachers to deepen their content knowledge and prepares them to design and implement expeditions. Long-term professional development is available to all ELOB partner schools. Site-based staff development programs are available for entire school faculties, teams of teachers, and school leadership teams. The professional learning program of each school is designed with support of the national organization to meet the needs and goals of each partner school.

Other annual professional development experiences include national summits, summer institutes, Outward Bound courses, leadership retreats, interschool visitations, seminars, and conferences. These experiences focus on assisting teachers to align learning expeditions with state standards; adopt or adapt instructional tools and strategies to be compatible with the Expeditionary Learning program design; model and coach teachers in active learning pedagogies in the classroom; help teachers understand interdisciplinary teaching and classroom culture; assist teachers with authentic assessment; and provide school leadership training and support.

The national summits serve four purposes: offering teachers an opportunity to experience learning expeditions as students; immersing teachers in content areas; building collaborative networks with teachers from other Expeditionary Learning schools; and showcasing new strategies and techniques that can be incorporated into classroom teaching.

PROCESS

- Training
- Coaching
- Conferences
- Seminars
- Summer workshops
- Outward Bound courses
- Team collaboration
- Intervisitations

INTENDED AUDIENCE

- Entire school faculties

the BOTTOM LINE

☆ ☆ ☆ ☆

Expeditionary Learning Outward Bound, a comprehensive school reform model, is included in this guide because it incorporates extensive content-specific and instructional staff development. The strong multidisciplinary and active learning approach to teaching and learning requires teachers to have deep content knowledge and strong collaborative skills. Through an extensive school-based and national staff development program, teachers learn how to create productive learning environments, create learning expeditions aligned with state standards, and design active learning experiences that engage students in authentic application of their knowledge and skills.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests
- Standardized tests
- Student portfolios
- Writing samples
- Presentations of student work
- Performance of student work

Expeditionary Learning Outward Bound (ELOB) brings about significant improvement in student achievement as measured by standardized tests and portfolios of student work. Using both independent third-party evaluations and internal assessments, consistent improvement in student achievement has been demonstrated throughout the history of ELOB.

In 1995, the Academy of Educational Development (AED) conducted an extensive investigation of the implementation and effectiveness of the 10 original Expeditionary Learning schools. Other studies, by the RAND Corporation, American Institute for Research, the University of Colorado, Brown University, and the National Staff Development Council, confirm the success of ELOB in increasing student achievement, improving instructional practice and school culture, providing effective professional development, and reducing the need for disciplinary action.

In one study of a K–12 Expeditionary Learning School, students demonstrated consistent improvement in reading as they moved from the lower to the higher grades. When students remained in the program longer, their performance gains were greater. At one K-8 Spanish bilingual school implementing ELOB where approximately 50% of the students are bilingual or LEP, scores on several different standardized tests between 1992 and 1997 improved substantially in reading and mathematics and students outperformed students in a comparison school. At one school site in 1999, students in Expeditionary Learning Outward Bound outperformed the district comparison and the district as a whole on the state assessment.

Project Director

Greg Farrell
President and CEO
Expeditionary Learning Outward Bound
100 Mystery Point Road, Route 9D
Garrison, NY 10524


Phone: (845) 424-4000


Fax: (845) 424-4280


E-mail: greg_farrell@elob.org


Web site: www.elob.org

Sample Sites

SITE #1

Ann Boger
Grass Valley Charter School
235 South Auburn Street
Grass Valley, CA 95945

phone: (530) 273-8723
fax: (530) 274-9872
e-mail: aboger@gvsd.k12.ca.us
web site: www.charter.gvsd.k12.ca.us

SITE #2

Scott Hartl
The Harbor School
294 Bowdoin Street
Dorchester, MA 02122

phone: (617) 635-6365
fax: (617) 635-6367
e-mail: scotth@elob.org
web site: http://harbor.boston.k12.ma.us

SITE #3

Karen Dresden
Capital City Public Charter School
3029 14th Street Northwest
Washington, DC 20009

phone: (202) 387-0309
fax: (202) 387-7074
e-mail: kdresden@excite.com
web site: n/a

SITE #4

Susan Tibbels
New Song Academy
1530 Presstman Street
Baltimore, MD 21217

phone: (410) 728-2091
fax: (410) 728-0829
e-mail: Stibbels@newsonglc.org
web site: www.newsonglc.org

SITE #5

Suzanne Gregg
ANSER Charter School
1187 West River Street
Boise, ID 83702

phone: (208) 426-9840
fax: (208) 426-9863
e-mail: sgregg@anser-charter-school.org
web site: www.ANSER-charter-school.org

Documentation

Academy of Educational Advancement, Inc. (1996). Expeditionary Learning Outward Bound: Summary report. New York: Author.

Expeditionary Learning Outward Bound: A design for comprehensive school reform. Cambridge, MA: Author.

Killion, J. (1999). Expeditionary Learning Outward Bound. In What works in the middle: Results-based staff development (pp. 158 – 161). Oxford, OH: National Staff Development Council.

Udall, D., & Rugen, L. (1997, January). From the inside out: The Expeditionary Learning process of teacher change. Phi Delta Kappan, 78 (5), 404 – 408.

Ulichny, P. (2000, September). Academic achievement in two Expeditionary Learning/Outward Bound demonstration schools. Providence, RI: Brown University, School of Education.

For the Children: Practices Leading to Performance

Program Description

CONTENT

- Reading strategies
- Analyzing text
- Interpreting text
- Reading comprehension
- Math problem solving
- Coaching
- Walk-throughs

For the Children: Practices Leading to Performance is a system of staff development focused on the mission of providing elementary students with instruction that empowers them to meet the challenges of new standards. Through the implementation of specific instructional practices, student performance has increased substantially. Over the last four years elementary schools in Palisades, Pennsylvania, have devised and implemented this program based on targeting particular best practices to be focused on in the staff development program.

Practices are carefully identified through a survey technique that identifies teachers' current use of practices and mapping teachers' practices against student standardized test scores. Districtwide targets for student achievement are set. Then teaching practices that would best enhance student achievement in identified areas of need are selected. For example, strategies for reading analysis and interpretation and mathematical problem solving were the targets of the program to date.

The ongoing, targeted staff development includes training by national, local, and in-house experts; the development of clear classroom expectations for targeted practices; classroom coaching by a resident or visiting teacher; development of school-based action team plans and accompanying staff development; implementation of study groups and protocols for collaborative examination of student work; and walk-throughs to provide data to further inform staff development decisions.

Program Context

CONTEXT

- Small schools
- Rural district
- Residential district

Palisades School District is a rural residential district in Bucks County, Pennsylvania. The three K-5 elementary schools serve approximately 1000 students in a district of 2200 students. Three of the district's schools are Blue Ribbon Schools, and one elementary school recently received the Governor's Award for student achievement. The district received the 2001 Exemplary Staff Development Award from the Pennsylvania Staff Development Council and the Pennsylvania Department of Education.

Staff Development Program

For the Children: Practices Leading to Performance involves identifying current instructional practices, analyzing the impact of these practices on student achievement, setting targets for improvement, and providing research-based "next steps" for extending teacher pedagogy and content knowledge. In the first four years of the program, teachers focused on developing critical reading skills through the use of teacher modeling and literature circles and a consistent approach to mathematical problem solving and use of writing to explain in mathematics.

PROCESS

- Coaching
- Demonstration teaching
- Training
- Observation
- Building action plan

For the Children's staff development program involved several components. First, all teachers and principals received high-quality staff development, facilitated by national experts. For reading, training was provided by the National Center on Education and the Economy. Math problem solving training was provided by the Institute for Learning at the University of Pittsburgh. In addition to high-quality training, a cadre of in-house experts received extensive training, facilitated the development of clear expectations of implementation, and supported their peers through consultation and classroom visits.

School improvement plans, the third component, reflected the specific staff development practices for the building. The plans included collegial study of texts and examining student work. Ongoing monitoring of the impact of staff development on student achievement is the last component of the staff development program. For the Children requires six full days of staff development per year and an additional six hours per month.

INTENDED AUDIENCE

- Entire school faculties

the BOTTOM LINE

☆ ☆ ☆ ☆

For the Children: Practices Leading to Performance is a staff development model that can be applied to any improvement area. In this particular district, the program focused on improving students' reading and math performance. The program builds the capacity of the school and district staff to analyze current instructional practice, identify "next steps" for improving teachers' content knowledge and pedagogy, and work toward specific targeted goals related to student achievement.

Interdisciplinary

Evidence of Student Achievement

SUCCESS INDICATORS

- Standardized tests

Evidence of achievement is based on a steady increase in students' achievement on the Fourth Grade New Standards Reference Exams published by Harcourt Brace. The exam is administered annually. Results in each of the targeted areas for improvement have showed a consistent and marked improvement over a three-year time period. Between 1998 and 2001 the number of students meeting or exceeding the standards in reading analysis and interpretation increased from 66% to 94%. In mathematics problem solving, the percentage of students meeting or exceeding the standard increased from 39% to 98%. These steady gains not only demonstrate substantial increases, they also demonstrate gains exceeding the national scores. In 2001, on the Fourth Grade New Standards Exam, nationally only 30% of the students met or exceeded the standard on analyzing and interpreting text compared to 94% of Palisades School District's students. In math problem solving on the same exam, only 13% of students in the nation met or exceeded the standard compared to 98% of Palisades School District's students. Achievement gains in other areas on the New Standards Exam such as in writing and other subtests of the reading and math also demonstrate marked improvements.

Project Director

Janet Link
Palisades School District
Durham Nockamixon Elementary School
41 Thomas Free Drive
Kintnersville, PA 18930


Phone: (610) 847-5131 x3001


Fax: (610) 847-6960


E-mail: jlink@palisades.k12.pa.us


Web site: www.palisadessd.org

Sample Sites

SITE #1

Ron Renaldi
Springfield Elementary
Palisades School District
1950 Route 212
Quakerstown, PA 18951

phone: (610) 847-5131 x6000
fax: (610) 346-8124
e-mail: rrenaldi@palisadessd.k12.pa.us
web site: www.palisadessd.org

SITE #2

Janet Link
Durham Nockamixon Elementary School
41 Thomas Free Drive
Kintnersville, PA 18930

phone: (610) 847-5131 x3001
fax: (610) 847-6960
e-mail: jlink@palisades.k12.pa.us
web site: www.palisadessd.org

SITE #3

Eileen Wessel
Tinicum Elementary School
162 East Dark Hollow Road
Pipersville, PA 18947

phone: (610) 847-5131 ext. 7000
fax: (610) 294-9182
e-mail: ewessel@palisades.k12.pa.us
web site: www.palisadessd.org

Documentation

Barnes, F., & Miller, M. (2001, April). Data analysis by walking around. School Administrator, 58(4), 20-25.

Project CRISS

CReating Independence through Student-owned Strategies (CRISS)

Program Description

CONTENT

- Learning strategies for knowledge management
- Instructional strategies
- Reading strategies
- Writing as a response tool
- Strategies for interacting with text
- Patterns and structures of text

CReating Independence through Student-owned Strategies, also known as Project CRISS, was developed by Dr. Carol Santa, and a team of elementary, middle, and high school teachers. This interdisciplinary program helps students in grades 3 – 12 read, understand, organize, and study text to facilitate their learning. Teachers help students build on prior knowledge, actively engage in the learning process, and incorporate discussion, writing, and organizing into their learning. Teachers assist students to learn a variety of strategies for reading and learning content and to gain a metacognitive understanding of when and how to use them.

CRISS assists teachers to learn and use a wide variety of research-based strategies to meet differing student and curriculum needs. Once teachers receive training, they use the strategies as a part of their regular classroom instruction. After students become comfortable with the strategies, teachers encourage them to select their own learning goals and use the strategies that work best for them. Using common vocabulary and activities, CRISS helps integrate curriculum across content areas and grade levels.

Specifically, students learn how to identify the author's craft and design, organize information through notetaking, map concepts, create charts, write reports and essay tests, apply memory techniques, incorporate vocabulary, discuss ideas, and use writing as a learning and response tool.

Program Context

CONTEXT

- Varied schools and districts
- 653 sites with varied student populations
- Appropriate for grades 3 – 12
- 70 national-level and 1500 district-level trainers

Project CRISS has been effective for students with a wide range of learning needs, including learning disabled and gifted students. The program adapts easily to all grade levels and works well in all content areas. The program is equally successful in urban, rural, and suburban settings.

Currently 171 elementary school sites, 275 middle school sites, and 207 high school sites throughout the country use Project CRISS. There are 1500 certified district level trainers and 70 national trainers available to provide staff development for teachers to implement this program.

Staff Development Program

The staff development program associated with Project CRISS offers teachers 12 to 24 hours of training. The training focuses on the seven major components of the program: theoretical background, textbook analysis and teaching the author's craft, discussion strategies, active strategies for learning and organizing, writing strategies, vocabulary, and assessment. These seven areas are integrated into the content-specific curriculum that teachers deliver.

During the training teachers see model lessons in action and learn how to apply the strategies to their own classrooms. Teachers learn strategies for helping their students with each of the seven components. Teachers learn to use the Project CRISS strategies to assess students' work and to encourage students to become more reflective about their learning progress. The centerpiece of the training is a 200-page resource book that assists teachers in implementing and adapting the strategies to their own unique curriculum and classroom context.

Post-training follow-up support is provided by a district-based facilitator who provides support to teachers, collects data to evaluate the program's effectiveness, and serves as a liaison between the program staff and the local school or district.

PROCESS

- Training
- Demonstration
- Modeling
- Follow-up support
- Resource materials

INTENDED AUDIENCE

- Entire school faculties
- Departments
- Grade level teams
- Individual volunteer teachers

the BOTTOM LINE

☆ ☆ ☆ ☆

Project CRISS (CReating Independence through Student-owned Strategies) assists teachers and their students. It offers teachers proven strategies for helping their students learn and retain content knowledge. It offers students lifelong learning strategies that will help them acquire, process, organize, and manage large amounts of subject area information. The strategies students learn are transferable across content areas providing them with a rich array of learning options. Built on the principles of cognitive psychology, the strategies work well with a wide range of students and in a variety of content settings.

Evidence of Student Achievement

SUCCESS INDICATORS

- Free-recall of content area material
- Writing samples
- Teacher surveys

Since its inception, students whose teachers used Project CRISS strategies and helped their students apply them have demonstrated significantly greater gains in the retention of subject matter information than comparable students who did not have the strategies instruction. The experimental study used randomly assigned teachers rather than students to control and experimental groups and applied a pre- and post-test methodology at two development sites and two replication sites of intact classroom groups of students in grades 4, 6, 8, and 11.

Information retention was measured through a standardized free-recall approach using text appropriate to the reading level of students. In multiple studies in schools and districts in Montana, Florida, Colorado, and Virginia students who participated in Project CRISS scored significantly better than students in the control group in all grades assessed (4, 6, 8, and 11).

In addition to content knowledge retention, students were asked to explain in writing what they did to read and learn information in the articles presented in the assessments. Students in the control group had little strategy knowledge and depended largely on rereading and memorizing, while students in the experimental group, by contrast, used an assortment of learning strategies and often multiple strategies, including taking notes, writing summaries, concept mapping, categorizing ideas, and self-questioning. Post-training surveys of teachers clearly indicate a high degree of implementation of the Project CRISS strategies in their classrooms.

Project Director

Lynn Havens
Director
Project CRISS
40 Second Street
Suite 249
Kalispell, MT 59901


Phone: (406) 758-6440


Fax: (406) 758-6444


E-mail: lhavens@projectcriss.com


Web site: www.projectcriss.com

Sample Sites

SITE #1

Teri Marshall
Saint Mary's Hall
9401 Starcrest
San Antonio, TX 78217

phone: (210) 483-9214
fax: (210) 483-9299
e-mail: tmarshal@smhall.org
web site: www.smhall.org

SITE #2

Jim Brandenburg
Alachua Elementary School
13800 Northwest 152nd Place
Alachua, FL 32615

phone: (386) 462-1841
fax: (386) 462-0031
e-mail: brandeje@sbac.edu
web site: www.sbac.edu/~alachua

SITE #3

Agnes Dunn
Moncure Elementary
75 Moncure Lane
Stafford, VA 22554

phone: (540) 658-6300
fax: (540) 658-6292
e-mail: adunn@fls.infi.net
web site: www.pen.k12.va.us/Div/Stafford/mes

SITE #4

Barbara Roeder
Palmyra Elementary School
701 West Maple Street
Palmyra, WI 53156

phone: (262) 495-7103
fax: (262) 495-7134
e-mail: broeder@palmyra.k12.wi.us
web site:
www.palmyra.k12.wi.us/pes/index.htm

Documentation

Allen, R. (2000, Summer). Before it's too late: Giving reading a last chance. ASCD Curriculum Update, 1 – 8.

Killion, J. (1999). Project CRISS: CReating Independence through Student-owned Strategies. In What works in the middle: Results-based staff development (pp. 166 – 169). Oxford, OH: National Staff Development Council.

Manzo, K. (2001, April 18). A primary subject goes secondary. Education Week, http://www.educationweek.org/ew/ewstory.cfm?slug=31reading.h20. May 26, 2001.

Project CRISS. (1996). Educational programs that work: The catalogue of the National Diffusion Network (21st ed). Longmont, CO: Sopris West.

Santa, C., Havens, L., & Maycumber, E. (1996). CReating Independence through Student-owned Strategies. Dubuque, IA: Kendall/Hunt Company.

Questioning the Author

Program Description

CONTENT

- Focusing on ideas rather than retrieving text
- Listening and responding to teachers and students
- Research base to support the program
- Construction of queries
- Comprehension monitoring

Questioning the Author is a staff development program for teachers in grades 3–12 that encourages teachers to engage students with text in literature and social studies and science text. The program focuses on developing teachers' abilities: to guide students to their own construction of meaning from text; to orchestrate explicit comprehension instruction; to help students elaborate on key ideas in both narrative and expository text; and to motivate students of all ability levels.

Isabel Beck and Margaret McKeown of the University of Pittsburgh's Learning Research and Development Center developed Questioning the Author based on their extensive research. The program is used throughout the United States. Professional development is provided by INSIGHT Professional Development, a division of Wright Group/McGraw-Hill. The staff development program includes training of at least one day or more. A district facilitator training program is available.

The program prepares teachers to use the Questioning the Author strategies to move beyond surface reading of text to grapple with ideas in the text through a unique dialogue with the text's author. Teachers use questions such as "What is the author trying to say?" and "What do you think the author means by that?" to engage students in discussion, interpretation, and construction of meaning from the text they read. As a result, the talk in the classroom shifts from teacher-dominated talk to dialogue shared among students and teachers. Questions and their responses focus on meaning and ideas, and students engage more fully in developing their own ideas through questioning and responding to one another.

Program Context

CONTEXT

- Wide variety of schools and districts
- Wide range of students
- 19 states and Canada

Questioning the Author has been implemented at multiple sites including schools in Pittsburgh, Sacramento, Skokie (Illinois), Kansas City (Missouri), and New York City. Training has been provided in 19 states and Canada for teachers who work with a wide variety of students and in a wide range of schools and districts. The program is recognized by the state of California as one research-based program for promoting comprehension and learning from literary and informational text.

Staff Development Program

The staff development program prepares teachers to implement Questioning the Author strategies in the classroom. Training resources including an overview videotape, participant manuals, scripted lessons, a quick reference guide, and discussion support cards are available to support implementation.

Most teachers participate in a one- or two-day workshop that introduces them to Questioning the Author, the research supporting the program's design, and strategies for implementation. Participants see and participate in sample lessons and learn about the results of the program. If a district wishes to train district facilitators, they are available to support individual teachers with the implementation of Questioning the Author in their classrooms. In addition to extended training, district facilitators participate in rigorous performance-based evaluations in order to become certified trainers. The support of a district facilitator offers the necessary face-to-face follow-up necessary for implementation.

PROCESS

- Training
- Demonstration
- Videotape
- Case study
- Classroom-based follow-up
- Implementation resources

INTENDED AUDIENCE

- Entire school faculties
- Departments
- Teacher teams
- Individual volunteer teachers

the BOTTOM LINE

☆ ☆ ☆ ☆

Questioning the Author has a solid research base to support its claim that it improves students' ability to construct meaning from literature, and social studies and science text and has been used with students in grades 3 through 9 with consistent results. It is recognized by the state of California as a program that improves students' ability to interact with literary and informational text. Having a certified district facilitator to provide support for classroom teachers enhances implementation.

Interdisciplinary

SUCCESS INDICATORS

- Oral recall tests
- Open-ended questions about text
- Comprehension monitoring
- Student–teacher interaction

Evidence of Student Achievement

A number of studies of the effectiveness of Questioning the Author have been conducted. The studies confirm that engaging students in dialogue about text through queries of the author improves their ability to construct meaning from text. In pre- and post-test evaluations of students who used Questioning the Author, students demonstrated an improved ability to monitor their comprehension of informational text. They actively engage in constructing meaning from text and improved their discussion strategies. Students' responses to teacher-initiated questions shifted from retrieving text information to considering and extending meaning. Students improved their ability to make connections among ideas and to integrate prior knowledge. In one study comparing Questioning the Author with another discussion strategy, students using Questioning the Author had significantly higher scores in both oral recall of the text or story elements and to open-ended questions about the text.

Project Director

Donna Brewer
Director of Contract Training
INSIGHT Professional Development
19201 120th Avenue Northeast
Bothell, WA 98011


Phone: (800) 523-2371 x3463


Fax: (425) 455-5990 or
(425) 486-6804


E-mail: donna_brewer@mcgraw-hill.com


Web site: www.teacherhelp.com

Sample Sites

SITE #1

Viola Burgess
Clayton Elementary School
1901 Clayton Avenue
Pittsburgh, PA 15214

phone: (412) 323-3450
fax: (412) 323-3454
e-mail: vburgessl@pghboe.net
web site: pghboe.net

SITE #2

Justine D'Ambrosio
James H. Metzgar Elementary School
R D #3 Box 379
New Alexandria, PA 15670-9686

phone: (724) 668-2236
fax: (724) 668-8297
e-mail: jdambros@wiu.k12.pa.us
web site: www.pps.pgh.pa.us

SITE #3

Lourdes Flores
Weslaco Independent School District
P.O. Box 266
Weslaco, TX 78599-0266

phone: (956) 969-6527
fax: (956) 969-2664
e-mail: mflores@weslaco-isd.net
web site: www.weslaco-isd.net

SITE #4

Linda Marks
Golf School District 67
9401 Waukegan Road
Morton Grove, IL 60053

phone: (847) 966-8200
fax: (847) 966-8290
e-mail: lmarks@golf67.net
web site: www.golf67.net

SITE #5

Carol L. Brown
Greensburg Salem School District
11 Park Street
Greensburg, PA 15601

phone: (724) 832-2991
fax: (724) 832-2968
e-mail: clbrown@wiu.k12.pa.us
web site: http://gbgsalem.k12.pa.us

Documentation

McKeown, M., & Beck, I. (1998). Talking to an author: Readers taking charge of the reading process. In R. Calfee & N. Spivay, eds. The reading-writing connection: Yearbook for the National Society for the Study of Education, 97 (2), 112 – 130. Chicago: National Society for the Study of Education.

McKeown, M., & Beck, I. (1999, November). Getting discussion started. Educational Leadership, 56 (3), 25 – 28.

McKeown, M., & Beck, I. (2001). Designing questions toward thinking and understanding rather than answers. Perspectives, 27 (2), 21-24.

McKeown, M., & Beck, I. (2001). Inviting students into the pursuit of meaning. Educational Psychology Review, 13 (3), 225 – 41.

Sandora, C., Beck, I., & McKeown, M. (1999). A comparison of two discussion strategies on students' comprehension and interpretation of complex literature. Journal of Reading Psychology, 20, 177 – 212.

Reading Power in the Content Areas

Program Description

CONTENT

- Reading skills
- Strategies for integrating language arts into the curriculum
- Reading assessment strategies
- Vocabulary skills
- Comprehension
- Critical reading skills
- Critical thinking skills
- Study skills

Reading Power in the Content Areas is a staff development program for teachers in upper elementary grades through post-secondary classrooms. It is designed to assist them to integrate reading skills and strategies into classroom instruction. The program began in the early 1970s and has been validated since 1974 as an exemplary program. It assumes that when teachers integrate reading skills and strategies across the curriculum, students will improve their reading comprehension and also increase their acquisition of content material.

Teachers in grades 5-14 typically receive little preparation in teaching reading, yet national and state reading tests scores show that many of their students continue to need instruction and reinforcement of reading strategies. Textbooks and other support materials are often challenging for many students to read and comprehend. For these reasons, teacher professional development in reading equips teachers to assist students meet the demands of subject matter and meet local and state content standards.

Reading Power in the Content Areas provides teachers with background information and specific knowledge to meet student reading needs. Training includes assessing reading levels of instructional materials and students' use of those materials, integrating language skills (reading, writing, speaking, and listening) into content learning, developing varied tools for use in instruction, and teaching strategies such as vocabulary, comprehension, study skills, and critical thinking necessary for comprehension of all content material.

Program Context

CONTEXT

- Diverse school setting including urban, suburban, and rural schools
- Wide range of student abilities

Reading Power in the Content Areas has been implemented in 46 states and six U.S. territories. Over 10,000 teachers serving 700,000 regular education and Title I students in 3500 sites have participated in the training. Sites vary significantly. The program has been used with a wide variety of students and in diverse school settings. Its long history of success suggest that it can be replicated in many K-12 and college settings.

Staff Development Program

The staff development program includes training in developing understanding basic reading skills, integrating language arts with content areas, assessing students and materials, vocabulary and skill development, comprehension skills, critical reading and thinking skills, and study skills. Teachers complete a needs assessment, participate in initial training of one to two days, receive coaching and mentoring from a local coordinator, have scheduled follow-up, and evaluate their learning and student results.

Beyond the initial training, ongoing staff development is planned with Reading Power staff and conducted on-site by a local coordinator. The focus of these learning activities is to support implementation. The local coordinator works with program staff to monitor implementation and assist with implementation problems. Reading Power staff conduct onsite follow-up to support local coordinators. The training is intentionally based on the NSDC Standards for Staff Development, Revised (2001).

Training can be provided for whole school faculties, departments, interdisciplinary teams, and individual teachers and for regular education, Title I, English language learner, or migrant teachers.

the BOTTOM LINE

☆ ☆ ☆ ☆

Reading Power in the Content Areas provides teachers with the knowledge, strategies, and skills to improve students' learning in all content areas by helping students learn and apply reading strategies to acquire and process information. It has a long history of success in improving students' reading performance and content area teachers' instructional practices. It has been extensively replicated in widely diverse settings. Originally designed for high school teachers, the program has been expanded to include upper elementary, middle school, and post-secondary teachers in grades 6-14. The program integrates NSDC's Standards for Staff Development in its design, implementation, and evaluation.

PROCESS

- Demonstration
- Modeling
- On-site support
- Follow-up support with technical assistance
- Coaching
- Evaluation

INTENDED AUDIENCE

- Content area teachers
- Interdisciplinary teams
- Entire school faculties
- Department teams
- Individual teachers
- School reading and curriculum support staff

SUCCESS INDICATORS

- Standardized tests
- Criterion-referenced tests
- District assessments
- Informal teacher assessments

Evidence of Student Achievement

Reading Power in the Content Areas is designed to meet the needs of teachers as they assist students improve their reading skills for academic success in the content areas. In a study comparing student performance in regular and specialized classrooms, student NCE gain scores were significant at the .05 level. Students from diverse sites whose teachers were trained in and used Reading Power in the Content Areas concepts demonstrated significant gains in reading comprehension on norm-referenced tests. Comparisons with national and state Title I results showed that Reading Power in the Content Areas students achieved reading comprehension gains from one to two times greater than to those students in the Title I program. Additionally students who performed below grade-level on the pretest increased their performance to grade level on the post-test.

Tests of reading used to assess the impact of Reading Power in the Content Areas included state and nationally normed tests. Originally validated in 1974 by the Joint Dissemination Review Panel and later by the National Diffusion Network, Reading Power in the Content Areas has been revalidated on an ongoing basis until the Network was disbanded in 1997.

Project Director

Carol Burgess
Program Director
CB Consulting Services
16705 12th Avenue North
Plymouth, MN 55447


Phone: (763) 404-1010


Fax: (763) 404-2020


E-mail: burge003@tc.umn.edu


Web site: n/a

Sample Sites

SITE #1

Dean Reiners
Fair Oaks Elementary School
5600 65th Avenue North
Brooklyn Park, MN 55429

phone: (763) 533-2246
fax: (763) 549-2350
e-mail: reinersd@osseo.k12.mn.us
web site: www.osseo.k12.mn.us

SITE #2

Ramona Miller
Naytahwaush Elementary School
310 Madison
Mahnomen, MN 56557

phone: (218) 935-2565
fax: (218) 935-5827
e-mail: rmiller@mahnomen.k12.mn.us
web site: n/a

SITE #3

Mary Simmons
Bushnell Elementary School
218 West Flannery Avenue
Bushnell, FL 33513

phone: (352) 793-3501
fax: (352) 793-1336
e-mail: simmonsm@sumter.k12.fl.us
web site: www.sumter.k12.fl.us/bes

Documentation

Killion, J. (1999). Reading Power in the Content Areas. In What works in the middle: Results-based staff development (pp. 170 - 173). Oxford, OH: National Staff Development Council.

National Diffusion Network. (1996). Educational programs that work: The catalogue of the National Diffusion Network (21st ed.). Longmont, CO: Sopris West.

Teachers Academy for Math and Science

Program Description

CONTENT

- Math standards
- Science standards
- Hands-on instruction
- Cooperative learning
- Inquiry learning
- Leadership
- School community partnerships

Teachers Academy for Math and Science (TAMS) is a whole-school change process that fosters improved mathematics and science teaching and learning in elementary schools. The program centers around a three-year professional development program designed to improve student achievement by assisting teachers to become more prepared to teach mathematics and science and to use best practices to meet standards and engage students in meaningful learning experiences.

Begun in eight schools in Chicago in 1990, the program has now expanded to work in five other school districts. In the first two years, TAMS provides intensive professional development to schools focused on mathematics, science, and learning technology. The third year of service is designed to support the school in sustaining changes over time. The TAMS program has three strands that include: teacher professional development in mathematics, science and learning technology; leadership development; and school community partnership development. Teacher professional development focuses on hands-on/minds-on inquiry, student-centered learning, cooperative learning, and critical thinking.

Program Context

CONTEXT

- Urban schools
- Economically disadvantaged students
- Ethnically diverse students
- Academically challenged students

TAMS serves six school districts in urban areas in Illinois. TAMS schools serve predominately academically underperforming, ethnically diverse, and economically disadvantaged students in Chicago, East St. Louis, Cahokia, Joliet, Elgin, and Aurora. To date, TAMS has served 125 elementary schools and 3000 teachers. TAMS has developed an infrastructure that uses quality assurance procedures to maintain credibility, capacity, and accountability.

Staff Development Program

TAMS provides extensive professional development for teachers, administrators, and parents. Over three years, TAMS schools participate in 120 hours of instructional sessions that focus on mathematics, science, and learning technology. Teachers also receive 30 contact visits from TAMS staff for classroom-based observation, coaching, and other support. Seven visits during the first two years are direct classroom visits with conferences. Each participating teacher receives $1200 of manipulatives and classroom resources to support the learning activities modeled in the intensive professional development program. During the second and third years, a retreat that helps teachers assume responsibility for continuous improvement once the TAMS programs ends.

PROCESS

- Training
- Coaching
- Classroom support
- Three-year sustained support

Leadership development builds the capacity of teachers and administrators to support change beyond the scope of the TAMS program. It engages teams in developing collaboration, shared vision of the classroom, and continuous improvement and coaching techniques that will actively support change in teaching mathematics and science. TAMS staff work closely with school administrators to develop the skills necessary to lead and support change in their schools.

INTENDED AUDIENCE

- Entire school faculties

School and community partnership development focuses on encouraging parents to become partners and leaders within their community. Parents receive professional development in Family Math and Family Science and training in facilitative skills. Through this training parents are able to take an active role, supporting other parents and their students at school and within the community.

the BOTTOM LINE

☆ ☆ ☆ ☆

Using a comprehensively designed professional development program that combines training in content, pedagogy, classroom support, leadership development, and school community partnership development sustained over three years, The Teachers Academy for Math and Science has demonstrated its ability to impact student achievement through staff development. The replicability of the program, its attention to quality assurance, building the capacity of the school staff to sustain continuous improvement, and its ongoing evaluation, make TAMS a successful program appropriate for any school interested in improving teachers' content knowledge and pedagogy.

Evidence of Student Achievement

SUCCESS INDICATORS

- Criterion-referenced tests

Over 10 years, TAMS has emphasized improvements in student achievement and has emphasized assessment and data-drive achievement. Overall, TAMS students demonstrate greater gains on the Illinois student assessments than other students in the state. Further in a multivariate regression analysis conducted on the performance of 57 schools in Chicago, TAMS professional development was found to impact student achievement in 91% of the treatment schools when other factors such as prior achievement and student demographic characteristics were taken into consideration and using all other comparable schools in Chicago as the non-treatment group.

Between 1993 and 1998, 3rd grade students at TAMS schools, despite starting at a lower point, have gained 48 points compared to 19 points statewide average gain. Gains were sustained even after completing the program. When the state of Illinois changed its assessment in 1999, scores of many schools statewide fell, while the TAMS schools' scores continued to demonstrate improvement.

Further student achievement is sustained beyond the length of the program. When examining 7th grade science scores at Academy schools between 1993 and 1998, scores increased by 38 points compared to the statewide increase of 9 points. These increases are statistically significant. Other comparisons of schools using 4th to 7th grade scores in math and science also demonstrate statistically significant gains when examining math and science scores independently.

Project Director

Bret Feranchak
Policy Research Fellow
Teachers Academy for Math and Science
3424 South State Street
Chicago, IL 60616


Phone: (312) 949-2432


Fax: (312) 949-2454


E-mail: Bferanchak@tams.iit.edu


Web site: www.tams.org

Sample Sites

SITE #1

Michele Barton
Metcalfe Elementary School
12339 South Normal Avenue
Chicago, IL 60628

phone: (773) 535-5590
fax: (773) 535-5570
e-mail: michele10to1@yahoo.com
web site: www.cps.k12.il.us

SITE #2

Cara L. Diggs
John Whistler Elementary School
11533 South Ada
Chicago, IL 60643

phone: (773) 535-5560
fax: (773) 535-5589
e-mail: Cara.L.Diggs@cps.k12.il.us
web site: www.cps.k12.il.us

SITE #3

Jacqueline Johnson
Eberhart Elementary School
3400 West 65th Place
Chicago, IL 60629

phone: (773) 535-9190
fax: (773) 535-9494
e-mail: joyce.e.jager@cps.k12.il.us (principal)
web site: www.cps.k12.il.us

SITE #4

Linda Scott
A. O. Marshall-Joliet District 86
319 Harwood
Joliet, IL 60432

phone: (815) 727-4919
fax: (815) 727-9274
e-mail: scottie1955@hotmail.com
web site: www.joliet86.k12.il.us

Documentation

Allen, E., & Lederman, L. (1998, October). Lessons learned. Phi Delta Kappan, vol(issue), 58-168.

Bourexis, P., Kaser, J., & Raizen, S. (1999, June). Results of a follow-up study of the Teachers Academy for Mathematics and Science: September 1997-December 1998. Washington, DC: National Center for Improving Science Education, WestEd.

Brett, B., & Schreirer, M. (1994, September). A study of the Teachers Academy for Mathematics and Science. Andover, MA: National Center for Improving Science Education. (Grant #DE-FG02-93ER75920). Prepared for the Department of Energy, Office of University and Science Education.

Brett, B., & Schreirer, M. (1995, April). Methods and findings of the National Center for Improving Science Education (NCISE) external study of the Teachers' Academy for Mathematics and Science in Chicago. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.

Feranchak, B., Avichai, Y., Langworthy, A., & Triana, A. (2001, April). Evaluation of a mathematics and science professional development intervention: A regression approach to comparing a subgroup of school that is neither representative nor random. Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA.

WHAT WORKS

SECTION THREE:

ACHIEVING RESULTS

National Staff Development Council

National Education Association

CHAPTER 10

Up to Standard

Results-Based Staff Development for the Elementary and High Schools makes a unique contribution to knowledge about the state of staff development in the content areas. Like its middle grades companion, Results-Based Staff Development for the Middle Grades, this initiative helps construct an understanding of effective professional development practices in the content areas. These initiatives have established essential criteria for evaluating staff development programs and have identified 74 programs to date that meet these stringent criteria. Thirty-two of the programs are for grades K-6; 26 programs have been identified for the middle grades, 5-8; 16 programs have been identified for the high school. The results of this latest initiative contribute new information about how staff development is linked to student achievement.

This chapter identifies how these recognized programs are similar and how they address the National Staff Development Council's Standards for Staff Development, Revised (2001). Essentially all the standards and two in particular — evaluation and quality teaching — served as the criteria for program identification and selection. Because one criterion for inclusion in this guide is "well-designed staff development that increases teachers' content knowledge and content-specific pedagogy," this chapter is organized around the National Staff Development Council's 12 standards.

Goals to Improve Student Achievement

Not surprisingly, when a program's goals included increasing student achievement, the program did just that. Most of the programs included in What Works in the Elementary School: Results-Based Staff Development aimed to increase student achievement. Most also included goals about increasing teachers' content knowledge and changing teachers' instructional practices to align with standards of reform for the content areas. And, not surprisingly, when programs did not clearly state goals about increasing student achievement, no data exist demonstrating that student achievement increased.

When a staff development program intends to improve student achievement, most likely the goal will be achieved. In other words, "we get what we want." If, for example, a program focuses on improving teacher behavior or knowledge, most likely the program leaders will assess teacher behavior or knowledge rather than measuring improvement in student achievement. On the other hand, when programs focus on improving student performance, both student and teacher performance increase.

When a staff development program intends to improve student achievement, most likely the goal will be achieved. . . . In other words, "we get what we want."

The lesson learned is: setting a goal for a staff development initiative, such as "a high percentage of staff will participate," or "teachers will increase their content knowledge," or "teachers will change their instructional practices," misses the whole purpose of investing time and financial resources in staff development. Increasing teachers' content knowledge, changing their attitude about their content areas, or expanding their repertoire of instructional practices is a step on the path toward the only result that matters — increased student achievement.

Learning Communities

Many of the programs selected for inclusion engage teachers in collaborative learning experiences in which they build and sustain a community of learners focused on the goal of improving student learning. While it is not fully possible to determine how the learning communities work in each setting where these programs have been implemented, it is possible to know which design features of each program can contribute to the creation of learning communities. National Writing Project, Achievement First, Science Education Enhancing the Development of Skills, Reading Recovery, Rice University School Mathematics Project, and The Learning Network engage teachers as teachers of other teachers, recognizing the importance of teacher leadership. Other projects, such as Early Literacy and Learning Model. Iowa Chautauqua Program, For the Children: Practices Leading to Performance, and Developmental Reading Program Using Culyer Strategies in Reading, engage teachers in learning groups that stay together over a full school year or more. Some programs, such as Literacy Collaborative and The Learning Network, establish leadership teams who are responsible for implementation. Most programs recognize the importance of clear and focused goals and ensure that all efforts are centered on student learning needs and structured learning for adults in learning groups.

Leadership

Many programs included in this guide are a part of a national or local network and are directed by dedicated, committed leaders who ensure quality and results. Leaders of programs like Junior Great Books and Expeditionary Learning Outward Bound, among others, hold a high standard for program implementation and guarantees success. Leadership such as this is essential for every staff development initiative. Staff development leaders serve as instructional leaders, establish policy and structures to support ongoing educator learning, and distribute leadership among others in the organization. Project CRISS, Carbo Reading Styles Program, University of Illinois at Chicago – All Learn Mathematics, Literacy Collaborative, and Science Education Enhancing the Development of Skills, for example, provide training to local site facilitators who serve as implementation facilitators. Achievement First, Teachers Academy for Math and Science, and For the Children: Practices Leading to Performance train leadership teams to support implementation and organizational changes necessary to increase student learning. Successful staff development programs require strong leadership at the local level as well. Without it, many programs flounder and the emphasis on quality diminishes. This is not the case in the programs included in this guide. While reviewers did not specifically study leadership practices at each of the sites where the programs were implemented, it is evident from the record of success that leadership played a role in the programs' successes.

While reviewers did not specifically study leadership practices at each of the sites where the programs were implemented, it is evident from the record of success that leadership played a role in the programs' successes.

Additionally, some programs recognize the importance of providing support to principals. Achievement First, For the Children: Practices Leading to Performance, Different Ways of Knowing, and The Learning Network are some of the programs that provide training and support services to principals so they can best support teachers' learning. For the Children: Practices Leading to Performance provides training for principals in conducting walk-throughs, a particular kind of classroom observation. Achievement First offers an education coach who works closely with school administrators to assist them in leading change within their schools.

Resources

Resources for successful implementation are evident in a number of the programs. Most programs began with an initial investment of development costs through special funding sources including the federal government, local foundations, and school districts. These start-up costs were essential to design effective programs and to support implementation and evaluation. Without resources to support staff development services and teacher learning, many of the programs included in this book would not be as successful in increasing student achievement as they are. Staff development requires a commitment of sufficient resources, including both human and fiscal resources, and adequate time to have a positive impact on student learning.

To support the ongoing work of each project, resources, including funding and time, are necessary. A few programs, such as National Writing Project, We the People ... The Citizen and the Constitution, and We the People ... Project Citizen, continue to receive federal subsidy for program maintenance and services. Most programs receive a fee for service. Others, including Rice University School Mathematics Project – Summer Campus Program, were initiated by federal grants. TREASUR Math is a local systemic initiative funded by the National Science Foundation. Exemplary Center for Reading Instruction is an example of a program that is supported by private foundation.

Some programs provide resources to teachers to support implementation. Teachers Academy for Math and Science, for example, provides each teacher with $1200 to purchase the necessary classroom resources, such as manipulatives needed to implement the new instructional strategies. Teachers frequently express frustration that they receive professional development that demonstrates the use of helpful instructional tools, technology, or materials; then they return to their schools where those resources are not available.

Staff development funding provides extensive resources for program design and teacher training, professional release time, teacher leadership stipends, materials, and other costs associated with the programs. With these resources, often many teachers were able to benefit from quality staff development experiences. When resources are available and firmly embedded into school and district budgets and long-range personnel plans, staff development can thrive. On the downside, once special funding lapses, many excellent programs are discontinued. Evidence of this is apparent in many programs funded by national initiatives such as the National Science Foundation or through block grants. Yet, with innovative leadership, some programs are able to sustain themselves and continue well beyond their funding cycle. Reading Power in the Content Areas and Project Success Enrichment, both programs initiated and funded under the National Diffusion Network, are examples of programs that continue to provide services for a fee even though external funding has long ago expired.

When resources are available and firmly embedded into school and district budgets and long-range personnel plans, staff development can thrive.

Dependency on external funding for professional learning continues to leave staff development outside the system as an incidental, optional component, rather than as an embedded, essential part of the educational system. When schools and districts view staff development as an "add-on," it rarely produces long-term results for students or teachers, or receives the systemic support necessary to make a wide-ranging impact. In contrast, when staff development is viewed as an investment — similar to the way in which research and human resource development are

viewed in business and industry — then it receives the funding and time allocation necessary to support it as an integral component of a successful learning organization.

Data-driven

Programs included in this resource guide address learning needs of students. In most cases the programs were specifically developed to address known learning needs of students. Because these programs are content-specific and are aligned with national standards, they are typically geared to improve student achievement in one area, for example writing or reading. Interdisciplinary projects target multiple disciplines. Successful staff development, including these recognized programs, works when it is selected or adapted to meet an identified need. When the identified student learning need is specific and the staff development program is a "broad sweep," little will change for teachers or students.

The 32 programs in What Works in the Elementary Grades: Results-Based Staff Development are driven by the desire to increase student achievement in specific content areas and have been designed based on current knowledge about student learning gaps. As such, they are data-driven staff development programs. This may say much about their success. In contrast, some schools and/or districts implement programs because of interest in having the program and its accompanying resources, rather than to address an identified student achievement need. The 32 programs listed in this guide do not attempt to solve every school problem. They clearly address specific learning areas. Matching a program with an identified set of student learning needs and goals and the concomitant educator learning needs is essential to ensure a good fit and to increase the likelihood of a program's success.

Some programs include built-in data analysis in the early stages of the program. For example, TREASUR Math was designed after an extensive local needs analysis of individuals and the organization. Programs such as Different Ways of Knowing and Scaffolding Early Literacy Program incorporate an analysis of the school or district in order to tailor the staff development to meet the needs of the participants.

Evaluation

These programs offer exemplary models of evaluation for other staff development programs to emulate. Their rigorous evaluations, using quasi-experimental and experimental design and quantitative data, are resources for staff development leaders and providers who want to provide evidence of the impact of their programs and are uncertain how to conduct such an evaluation. Studying the evaluation methodologies of these programs is one way for others to begin their own evaluations and to meet the emerging demand for scientifically based research associated with the reauthorization of the Elementary and Secondary Education Act (ESEA).

Their rigorous evaluations, using quasi-experimental and experimental design and quantitative data, are resources for staff development leaders and providers who want to provide evidence of the impact of their programs.

The shortcoming of this work, however, is that most of these evaluations are black box evaluations. In other words, they provide little information about the transformative processes that produce results for students (Killion, 2002). Those wishing to conduct evaluations of staff development programs may wish to examine these programs and simultaneously determine how to gather formative data about implementation to ensure a more comprehensive picture

of program success. However, several programs such as Different Ways of Knowing, Project CRISS, For the Children: Practices Leading to Performance, Carbo Reading Styles Program, and Gateways to Literacy Project, have guidelines to assess implementation and to help provide both formative and summative information about the program's success. Scaffolding Early Literacy Program begins its work with a planning evaluation of the district's or school's current literacy program and resources. Its goal is to thoroughly meet the needs of the individual site. Yet, despite the predominant use of black box evaluations, these programs take bold steps to assume accountability for results for students.

The old adage that "what gets measured gets done" may be important to focus on in evaluating staff development. These programs establish high expectations for student results, are unafraid of accountability, and responsibly take action to provide evidence of their success. Too many staff development programs fall short by assessing only the participants' reaction to the professional learning experience rather than measuring results for students. If all staff development programs were expected to be evaluated based on student results, the quality and focus of professional learning would likely change significantly.

Research-based

When schools and districts seek staff development programs to adopt, adapt, or use as models, they will look toward research-based programs first. Schools and districts can consider the 32 research-based programs in this guide as they seek ways to improve staff development. The noted experts who are responsible for developing these programs based their work on research in the content field, on teaching and learning, on student learning, and on adult learning and change. The commitment to ongoing evaluation as the programs are implemented in multiple sites adds to the research base that supports the credibility of these programs.

Yet, partial or low-level implementation will not produce results. This is a common problem for program developers. These programs, implemented as designed, have demonstrated significant results in a variety of sites. If a new site experiences limited improvement, poor or partial implementation may be responsible. Many programs are intentionally designed to include classroom coaching throughout a school year or other forms of follow-up. If local program implementers do not provide or arrange for the requisite follow-up, the results at the new sites will not match those documented at previous sites.

Fortunately, the programs included in this guide make it clear in advance what conditions contribute to their success. If a school contracts with Northwest Regional Educational Laboratory to provide training in 6 + 1 Trait™ Writing Model, NWREL will explain in advance what is necessary to replicate the success of the program. Expeditionary Learning Outward Bound, Achievement First, Science Education Enhancing the Development of Skills, Literacy Collaborative, and others invest significant effort in helping schools establish the conditions for success and provide ongoing support to ensure faithful replication of the principles. It is advisable to know in advance what contributes to a program's success, the degree to which a program had been successful in similar or different situations, and what adjustments in the existing context may increase program success.

Fortunately, the programs included in this guide make it clear in advance what conditions contribute to their success.

Design

Perhaps more is known about how these programs addressed the standard of design than any other standard. To be included in this guide, programs demonstrated that they had a well-defined staff development program. They incorporated many design features that are known to be associated with increased student achievement. The distinctive design features of these programs include multiple learning models, integration of follow-up support, provision of resources to facilitate transfer to the classroom, and the use of time during the learning experience that allows for planning and preparation for application. A longitudinal study of Title I found that teachers' ratings of their professional development experiences were consistently related to greater gains in student learning. When teachers believed that their professional development aligned with school goals, focused on standards and assessments, and added to their confidence in using new instructional strategies, student achievement gains exceeded the study's average (U.S. Department of Education, 2001). This study supports what staff development leaders and providers have known — design matters.

Each of the eight aspects of program design discussed below contributes to the likelihood of program success, across a wide range of program content and contexts. Design elements include: models for learning, follow-up support, resource materials, time for implementation and refinement, long-term focus, learning outside the school day, job-embedded learning, and access to experts.

Models for Learning

When people think about staff development, the predominant image that comes to mind is the traditional day-long institute, summer course, extended institute, or inservice course. In the 32 programs, included here, particularly the literacy and mathematics programs, it is evident that staff development leaders are making an effort to incorporate other models, such as demonstration, modeling, and coaching. These programs show a marked difference in design from the programs included in this book's middle and high school companion editions. They include far more job-embedded models of professional learning and less reliance on training as the primary learning model. Some programs incorporate teacher curriculum development and planning as collaborative activities, as do Early Learning and Literacy Model and Rice University School Mathematics Project - Summer Campus Program. Programs such as Iowa Chautauqua Program and National Writing Project develop teacher leaders who assume a significant role as teachers of teachers. Still, other programs such as 6 + 1 Trait™ Writing Model, Project Success Enrichment, Reading Power in the Content Areas, The Learning Network, Reading Recovery, Teachers Academy for Math and Science, Project CRISS provide programs for developing teacher leaders, trainers, or local facilitators to assist with implementation and onsite support. This is encouraging news for the field of staff development. For too long, the traditional "sit and get" model of staff development has been virtually the only form of professional learning. And, this guide contains an online program, Early Intervention in Reading, that is flexible enough to be available online, in a combination of face-to-face and online, or via telephone conferencing.

This is encouraging news for the field of staff development. For too long, the traditional "sit and get" model of staff development has been virtually the only form of professional learning.

Training is an efficient way to develop knowledge and skills. It offers opportunities for col-

laboration among peers and for establishing support networks. When training includes modeling or demonstrations, low-risk practice, and coaching or other forms of ongoing support, it can be extremely effective as a means to acquire knowledge and skills (Joyce & Showers, 1995). However, training is only one of five models of staff development (Sparks & Loucks-Horsley, 1989). Other models include 1) observation and assessment, 2) individually guided staff development, 3) involvement in a development or improvement program, and 4) inquiry. Some of the programs included in this guide use the training model as the basic form of professional learning but supplement it with other models far more often than was evident just three years ago during research for What Works in the Middle: Results-Based Staff Development, the middle grades companion to this guide (Killion, 1999). While training continues to occur most often outside teacher contracted time and especially during the summer in the form of institutes, the inclusion of varied job-embedded forms of professional learning in these programs is notable. Unlike programs included in the high school and middle school companions to this resource guide, many of the trainers are teacher leaders who have received specialized training and development in content, pedagogy, and adult development to become trainers of their peers.

What is perhaps most encouraging about the programs selected for inclusion in What Works in the Elementary Grades: Results-Based Staff Development is their comprehensive approach to staff development and the interweaving of multiple models for learning. Just a few years ago when What Works in the Middle: Results-Based Staff Development was published, one of the disappointments was the almost exclusive reliance on training as the single model for professional learning. The literacy and mathematics programs included in this guide particularly demonstrate that much can happen in a short time. They are especially strong in their use of multiple approaches to learning and incorporate powerful designs for learning, including formal training and job-embedded staff development that includes demonstrations, observations, classroom coaching, analyzing student work, collaborative teacher planning, action research, and study groups (Powerful Designs, 1999, Summer).

What is perhaps most encouraging about the programs selected for inclusion . . . is their comprehensive approach to staff development and the interweaving of multiple models for learning.

Besides training, observation (in the form of demonstration, classroom observation, and coaching) is the next most prevalent model of staff development. Most staff development programs integrate training along with some form of observation. This is followed by ongoing classroom support in any or all of these forms: demonstration lessons, observations of teachers, and feedback or coaching sessions to help teachers refine their content knowledge and instructional practices. For example, Reading Power in the Content Areas requires follow-up consultation that typically includes classroom observation. Participants in Junior Great Books and Rice University School Mathematics Project become students themselves. The programs build in modeling and demonstration with appropriate materials so that participants can fully understand the way the strategies work before they learn the technicalities of using the strategies. Other forms of observation are done via videotape. A number of programs, such as Cognitively Guided Instruction and 6 + 1 Trait™ Writing Model, incorporate videotaped lessons as a part of their training program. Early Intervention in Reading asks teachers to make short videotapes of their own teaching for critique during the training.

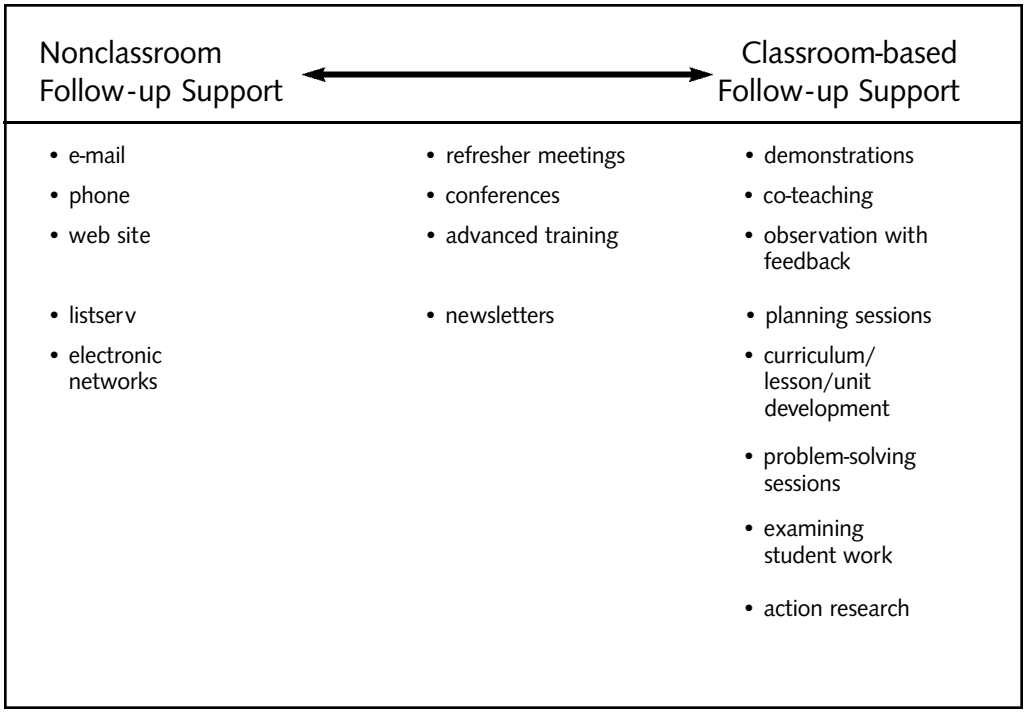
Some programs include involvement in a development or improvement process. Comprehensive Reading Program Using Culyer Strategies in Reading, Achievement First, Early Literacy and Learning Model, The Learning Network, and Teachers Academy for Math and

Science, for example, create a school-based team to support the ongoing development of the school and to build the capacity of the school staff to sustain the program and make improvements once specialized external providers leave. Expeditionary Learning Outward Bound, because of the comprehensive nature of the program, offers numerous opportunities for teachers to design learning expeditions for students and to establish school structures to support student success. These opportunities are arranged locally, regionally, and nationally and occur in addition to numerous national opportunities for teachers to extend their content knowledge and instructional strategies. Literacy Collaborative builds in the expectation that school teams will develop an implementation plan to facilitate use of the strategies across the curriculum. Science Education Enhancing the Development of Skills focuses on helping teachers develop a personal professional development plan that allows them to choose from among a variety of learning options.

Follow-up Support

Beyond the initial learning experiences, these programs provide multiple forms of follow-up support to assist with transfer of the new learning to the classroom. Figure 1 (below) describes the range of follow-up support. On one end of the continuum are nonclassroom-based processes for follow-up, and at the other end are those processes that are classroom-based. Samples of follow-up processes for each end of the continuum and several that fall in between are identified. Follow-up processes closer to the classroom help teachers at the point of delivery, where they are most likely to need support in order to change their instructional practices.

Figure 1: Types of Follow-up Support



Follow-up for the programs included in What Works in the Elementary Grades: Results-Based Staff Development varies widely. Many programs build in periodic refreshers or meetings throughout the subsequent school year. Iowa Chautauqua Program, for example, builds in two opportunities for teachers to meet, once in the fall and again in the spring, to extend their

learning and solve problems. Others, such as Rice University School Mathematics Project – Summer Campus Program, University of Illinois at Chicago – All Learn Mathematics, Teachers Academy for Math and Science, Different Ways of Knowing, and Early Literacy Initiative Project had regularly scheduled observations and feedback for teachers. Reading Power in the Content Areas held a follow-up meeting six to eight months after the initial training. We the People ... The Citizen and the Constitution and We the People ... Project Citizen routinely provide follow-up outside of the classroom in the form of electronic and telephone support. Still others, including Exemplary Center for Reading Instruction, National Writing Project, and Reading Recovery, offer publications such as newsletters and journals. Developmental Approaches in Science, Health, and Technology has online support and an 800 number for teachers to use to receive assistance or answers to their questions. For some programs follow-up was at the discretion of the school or districts. Individual schools could select a format for follow-up. While a number of options existed for follow-up for most programs, the degree to which these opportunities were tapped is unclear.

Follow-up for the 32 programs varies widely. . . . The degree to which these opportunities were tapped is unclear.

Resource Materials

To facilitate application in the classroom, some staff development programs incorporate resources for both teachers and students. Programs, such as We the People: The Citizen and the Constitution, and We the People ... Project Citizen, Developmental Approaches in Science, Health, and Technology, Scaffolding Early Literacy Project, 6 + 1 Trait™ Writing Model, Exemplary Center for Reading Instruction, Junior Great Books, Project CRISS, and Cognitively Guided Instruction, to name just a few, are programs that offer extensive resources to support teacher learning and application of the content and content-specific pedagogy into the classroom. Without resources such as these to depend on, teachers sometimes find it difficult to change their classroom curriculum and instructional practices at the same time.

Programs that provide teachers with sample units, lessons, or other instructional materials help scaffold implementation of the new strategies and content. For example, Project Success Enrichment and Project CRISS provide resource materials for use in the early stages of implementation when teachers are becoming familiar with the new instructional processes. These materials make the transition phase easier for teachers as they learn to modify comfortable processes and change their instructional practices. When materials are readily available, teachers can concentrate more on their instruction and not worry as much about developing the necessary tools to teach the new content or implement the new instructional practices.

When materials are readily available, teachers can concentrate more on their instruction and not worry as much about developing the necessary tools to teach the new content or implement the new instructional practices.

Time for Implementation and Refinement

Staff development programs that offer teachers time to redesign their curriculum and instructional units help teachers better prepare to implement their learning in the classroom. A number of projects, such as Early Intervention in Reading, Reading in the Content Areas, Teachers Academy for Math and Science, Achievement First, Scaffolding Early Literacy, Science Education Enhancing the Development of Skills, and Iowa Chautauqua Program, provide time throughout the staff development program for teachers to develop instructional materials that

they can use immediately with their students. Since redesigning curriculum and instruction is a time-consuming and complex task, teachers benefit from time set aside to work collaboratively with their colleagues to engage in this work. When several teachers plan together, they gain from the perspectives, experiences, knowledge, and skills of one another.

In addition to planning time provided during the training, teachers also need time for collaboration with their grade level or school teams to plan and redesign existing practices and processes. This type of planning and redesign is needed throughout the school year in larger blocks of time than typical daily planning time permits. When teachers have the opportunity to work cooperatively with their peers, they become engaged in a powerful form of staff development that allows them to grapple with "real" issues related to the new content and instructional processes (Killion, 1999).

Long-term Focus

Another feature of several of these programs is a long-term focus on learning rather than the compacted approach to learning. Several programs, such as TREASUR Math, Scaffolding Early Literacy Program, Early Literacy and Learning Model, University of Illinois at Chicago – All Learn Mathematics, Teachers Academy for Math and Science, Literacy Collaborative, and others, are three- to five-year programs. For example, in the staff development program associated with Literacy Collaborative, team members participate in a series of summer and school-year institutes over five years. Iowa Chautauqua Program and Early Literacy Initiative Project stretch professional development out over the school year to support ongoing learning. Reading Power in the Content Areas has a mandatory follow-up held six to eight months after the initial training to support and reinforce ongoing learning.

Learning Outside the School Day

Most training occurred outside teachers' normal working day or year. For example, summer institutes offered extensive blocks of time for teachers to engage in meaningful learning experiences. In some cases, teachers received a small stipend for attending the institute or were given free tuition, room and board, and materials. During the school year, teachers often met after school and occasionally on weekends to extend their learning. Because training is time-intensive and requires large blocks of uninterrupted time for learning, it is done outside the school day, after school, and during summers.

Job-embedded Learning

Many more programs in this resource guide include job-embedded learning experiences integrated into the teachers' normal workday. This provides opportunities for teachers to work in grade level teams, analyze student work, plan classroom curriculum, receive coaching, conduct action research, or participate in study groups. Early Literacy Initiative Project, The Learning Network, University of Illinois at Chicago – All Learn Mathematics, For the Children: Practices Leading to Performance, to name a few, are programs providing extensive staff development and support throughout the school day and year. The National Staff Development Council recommends that 25% of educators' work time be devoted to learning

Many programs in this resource guide include job-embedded learning experiences integrated into the teachers' normal workday.

and collaborating with colleagues. This form of job-embedded staff development guarantees that all employees have the necessary knowledge and skills to fulfill their responsibilities and meet students' learning needs.

Access to Experts

The development of teacher leaders in some projects, such as Reading Power in the Content Areas, National Writing Project, Iowa Chautauqua Program, The Learning Network, Achievement First, and Reading Recovery, provided teachers easy access to local expertise at their individual schools or in their districts. Local experts are often master teachers who volunteer or are selected to assume a leadership role. They provide immediate assistance to teachers as they implement new content and instructional strategies into their classrooms. Easy access to local support increases the likelihood that teachers will seek and promptly receive assistance when it is needed. Access to support also helps to sustain teachers' efforts and motivates them to continue implementing new practices, rather than falling back on more familiar or more comfortable processes.

In some cases, access to experts occurs through electronic means. The advent of e-mail, web sites, listservs, and electronic networks means help is only a click away. Several of the projects provide electronic support to teachers via phone, fax, e-mail, electronic newsletters, and so on. These electronic means of providing support allow teachers the flexibility to access support on their own terms. Via electronic media they are not dependent on others' schedules and can tap into these resources whenever it is convenient for them.

Learning

Design is closely associated with learning. Many of the design features discussed in the section above are incorporated into programs in this guide. It is evident that the designers of these staff development programs understand and are acting on the relevant body of knowledge about human learning and change. The intentional incorporation of certain design features indicates that those responsible for developing and implementing these content-specific staff development programs understand the fundamentals of human learning.

It is evident that the designers of these staff development programs understand and are acting on the relevant body of knowledge about human learning and change.

Engaging teachers as students of the content, as is practiced in Junior Great Books, Rice University School Mathematics Project, Iowa Chautauqua Program, and National Writing Project, to name just a few examples, is an effective strategy for adult learners. It deepens understanding of the instructional strategies they are learning if teachers first experience the learning as students themselves. This practice has been used extensively for professional development in the fields of math and science.

Another practice is supporting the transition of new learning to the classroom. This transition support can come through classroom coaching, team or grade level implementation or problem solving meetings, conducting action research, or observing demonstration lessons. Research reminds many staff developers of basic requirements for change to occur. A long-term learning process, ongoing support over time, and supportive resources facilitate and potentially even quicken transfer of new learning into routine practice. Sustained focus over time, as is the case in many of these programs, addresses this learning practice.

Modeling learning strategies that adult learners will use with their own students is another feature of learning that most of these programs incorporate. Virtually all the programs use modeling and demonstration to some degree in the design of their learning experiences. Some depend more on this approach to learning than others do; yet all recognize and integrate some form of seeing the new instructional practices and use of content in action. Most programs also engage adult learners in highly active and rich learning experiences that can accommodate their different experience levels, background, prior knowledge, and learning style. These approaches can expedite learning and simultaneously increase adults' motivation and enthusiasm about professional learning.

Collaboration

Educators enjoy opportunities to collaborate, to contribute to the success of their schools, and to feel as if they have a viable role in shaping the culture of their work environments. Teachers particularly want to share in leadership and to be actively involved in decisions that influence their work and classrooms. When opportunities for collaboration are present in a school's culture, teachers are typically more satisfied with their work, more actively involved in the schools, and more productively working toward school goals. Their students benefit as well. When teachers feel satisfied and involved, their classrooms often reflect a sense of community and shared responsibility.

Teachers particularly want to share in leadership and to be actively involved in decisions that influence their work and classrooms.

The programs included in What Works in the Elementary School: Results-Based Staff Development provide a variety of ways for teachers to collaborate. Within the training program, teachers are often working together in grade level, department, or leadership teams to plan and implement new strategies, as is the case in Literacy Collaborative, Early Literacy and Learning Model, Scaffolding Early Literacy Program, and Expeditionary Learning Outward Bound. Some programs offer specific leadership training, such as Iowa Chautauqua Program. For some programs multiple opportunities are available for collaboration among teachers. The degree to which any program specifically instructed teachers on collaboration skills is unclear from the analysis conducted.

Equity

Addressing the learning needs of all students, building safe and productive learning environments, and holding high expectations for all students are cornerstones of a number of programs that have successfully reduced achievement gaps among various students groups and addressed the needs of underserved students. Not all of the identified programs intended to specifically address the needs of high poverty or minority students, yet many have been successful in significantly raising the achievement of disadvantaged students. Most of the 32 programs have been implemented in urban and high poverty schools. Rice University School Mathematics Project – Summer Campus Program, Achievement First, Teachers Academy for Math and Science, and University of Illinois at Chicago – All Learn Mathematics were designed specifically to address the low achievement of minority students. Programs, such as Exemplary Center for Reading Instruction and Project Success Enrichment, address learning needs of a wide range of student populations including those with special learning needs.

Other programs, such as Reading Recovery, Project Success Enrichment, and Early Literacy and Learning Model, have succeeded with non-English-speaking students. These programs recognize that increasing student achievement not only means increasing test scores but also involves narrowing the achievement gap by improving the performance of underserved populations.

Quality Teaching

This standard is the foundation upon which the Results-Based Staff Development Initiative for Elementary and High Schools rests. The intention of this initiative is to identify staff development programs that prepare teachers to deeply understand their content area and to enhance their content-specific pedagogy. This is one of the four essential criteria all programs had to meet for inclusion in this resource guide. In addition to meeting the other three criteria, every program included in this book met this foundational criterion. All of the 32 programs are designed specifically to deepen teachers' content knowledge and expand their content-specific pedagogical instructional strategies. Many include strategies for assessing student learning and are aligned with local, state, and national content standards.

Family Involvement

Analysis of these programs did not reveal aspects that might include outreach to families and communities. No information was required about this aspect of the programs. Some programs, such as Expeditionary Learning Outward Bound, do have components that address family and community. Junior Great Books often includes parents by training them to provide supplemental support or extracurricular opportunities for students to apply shared inquiry. Early Literacy and Learning Model and Teachers Academy for Math and Science build in specific programs or learning experiences for families and community members. Other programs most likely have components that were not reported in their nominations that address interacting with family and community and supporting their involvement in the education of their students.

Final Thoughts

Results-Based Staff Development for the Elementary and High School is a timely and important initiative. Today many professional associations, federal and private agencies, and educational organizations are actively striving to upgrade teachers' preparation and to increase their opportunities for ongoing development. The National Staff Development Council and National Education Association are on the leading edge of these reform efforts. By reviewing and presenting these model programs, the National Staff Development Council and the National Education Association hope to improve the quality of professional learning available in all schools for all educators within the next five years as a means to improving the academic success of all students. The news about the capacity to implement high-quality professional learning is encouraging. What remains to be done is to integrate the successful practices from these often externally provided programs into all the professional learning programs that occur in every school. These programs provide visible evidence of what is possible and we hold the hope that every teacher will soon have access to the same high-quality professional development that these programs make possible.

By reviewing and presenting these model programs, the National Staff Development Council and the National Education Association hope to improve the quality of professional learning available in all schools for all educators within the next five years as a means to improving the academic success of all students.

Joyce, B., & Showers, B. (1995). Student achievement through staff development: Fundamentals of school reform (2nd ed.). White Plains, NY: Longman.

Killion, J. (1999). Islands of hope in a sea of dreams. San Francisco: WestEd. [On-line]. www.wested.org/pubs/online/pdawards

Killion, J. (1999). What works in the middle: Results-based staff development. Oxford, OH: National Staff Development Council.

Killion, J. (2002). Assessing impact: evaluating staff development. Oxford, OH: National Staff Development Council.

National Staff Development Council. (2001). National Staff Development Council's standards for staff development, revised. Oxford, OH: Author.

Powerful designs. (1999, Summer). Journal of Staff Development, 20(4).

Sparks, D., & Loucks-Horsley, S. (1989, Summer). Five models of staff development for teachers. Journal of Staff Development, 10(4), 40-57.

U.S. Department of Education. (2001). Longitudinal evaluation of school change performance. Washington, DC, Author. [On-line]. www.ed.gov/offices/OUS/PES/esed/lescp _highlights. html

CHAPTER 11

How to Use This Guide

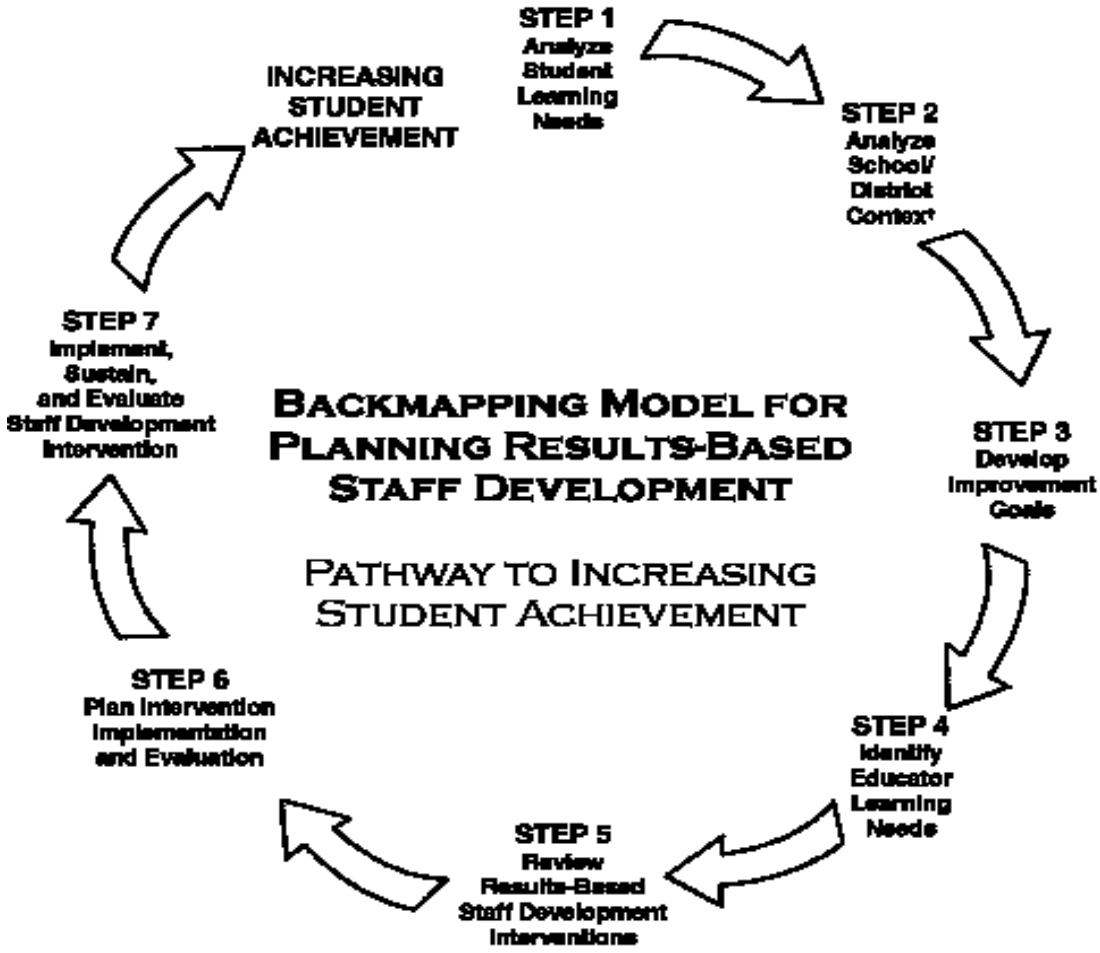
Enormous amounts of money are spent on staff development each year. These funds come from local school district budgets, private and public foundations, federal and state budgets, and educators' personal funds. To date, many policy and decision makers remain unconvinced that staff development provides a significant return on the investment, either in terms of changes in teacher practice or in student achievement. What Works in the Elementary School: Results-Based Staff Development hopes to change this in two ways:

1. Those who have responsibility for selecting staff development initiatives will benefit from examples of staff development programs that have evidence of increasing student achievement. The programs included in this volume have been carefully reviewed to ensure they meet established criteria. These model programs can be adopted, adapted, or used as prototypes for the development of local initiatives. Each of these programs provides (1) evidence of how the program has improved student achievement, (2) a well-designed staff development component, and (3) evidence showing that the program can be replicated elsewhere. Of course, programs that replicate these examples will more likely be successful if implemented with a high degree of fidelity to the original design.
2. For staff development leaders and program developers, the selected programs model ways to demonstrate the impact of staff development. Many providers want evidence of how their programs benefit teachers and students. The varied assessment processes employed by evaluators of these programs serve as model evaluation designs that other program developers can replicate or adapt.

Before referring to any programs in this guide, school teams have a number of preliminary tasks to complete. The steps and questions in this chapter will guide some of the decisions school teams need to make before selecting a staff development approach. These steps, in essence, are the steps to school improvement. Schools that have developed a thoughtful plan for improvement will have completed these steps as a part of their routine school improvement work. "Educational leaders who understand the strengths, weaknesses, and goals of their school and school district will be able to evaluate how various programs will match these to produce the best results in terms of student learning" (Educational Research Service, 1998, p. 20). School teams should become "knowledgeable choosers."

The backmapping model presented on the next page guides the planning of results-based staff development that targets an increase in student achievement. Step One is identifying areas of student learning needs. Step Two is analyzing the school and/or district context. Step Three is developing the school improvement goal that specifies increasing student achievement as the end result and educator learning as an activity to accomplish the goals. Step Four is identifying educator learning needs, a step that replaces the traditional needs assessment process. Step Five is reviewing possible staff development interventions. Step Six is selecting the intervention and planning for its implementation and evaluation. Step Seven is implementing, sustaining, and evaluating the intervention.

Figure 1: Backmapping Model for Planning Results-Based Staff Development



Step 1 — Review student achievement data.

To produce results, staff development must be directly tied to student achievement needs. Before selecting or designing staff development, a careful and thorough analysis of student achievement data occurs. This analysis will help identify specific student achievement strengths and areas of need and will guide decisions about staff development programs.

Key questions to answer during this step include:

- What assessment data are available?
- What is being measured in each assessment?
- Which students are assessed?
- What areas of student performance are meeting or exceeding expectations?
- What areas of student performance are below expectations?
- Do patterns exist in the data?
- How did various subpopulations of students perform? (Consider factors such as gender, race, and socioeconomic status.)
- What are other data telling us about student performance?

- How are the data similar or different in various grade levels, content areas, and individual classes?
- What surprises us?
- What confirms what we already know?

The data analysis process results in knowing or identifying:

- Specific areas of deficit.
- Specific knowledge and skills students need in order to overcome the deficit.
- Specific students or groups of students for whom the deficit is most prevalent or pronounced.

For example, assume a school's scores on a state test are below the expected or desired level in reading. These scores are insufficient by themselves to use for planning a staff development intervention. Now assume that the school staff analyzes subtest scores and subpopulation scores. Perhaps the staff finds a deficiency in reading vocabulary for a particular group of students. This analysis may include a review of the curriculum to determine which standards or benchmarks are most essential for students to achieve and what fundamental knowledge and skills serve as the prerequisites to these standards. This type of information can be used to establish schoolwide improvement goals, identify specific actions necessary to achieve those goals, and guide the selection and/or design of a staff development intervention to address the need by increasing the vocabulary skills of the identified student group.

In the example above, to simply identify reading as the area of focus provides insufficient information to guide the design and/or selection of a staff development program. The latter information, in contrast, is actionable — that is, it is specific enough to identify what teachers need to know and be able to do in order to improve student performance in reading vocabulary.

Step 2 — Identify the unique characteristics of community, school, staff, and/or district.

When school leaders and teachers understand the unique characteristics of the students, they can use this information to make appropriate instructional and program decisions. The parallel is true for staff development leaders. Knowing the unique characteristics of the adults who will participate in the staff development program will influence the design of the learning experience and the nature of follow-up support provided.

Understanding the conditions under which the staff development program will be implemented also helps inform the selection and/or design of a staff development initiative. For example, a staff development program for experienced teachers may be different than one for novice teachers. Likewise, a staff development program designed to enable staff to meet the needs of urban, disadvantaged students may be different than one for rural schools. Additionally, a program provided in a district or school setting where there are limited resources and/or time for staff development will be different than where time and resources are budgeted.

District, faculty, or school improvement teams complete a school profile to provide information about the environment and conditions where the need exists. Detailing the context helps staff development leaders make informed decisions about their staff development programs.

Key questions to answer in this area are:

- What are the characteristics of our students?

  Some characteristics to consider are:

  - Ethnicity/Race
  - Gender
  - Socioeconomic status
  - Mobility
  - Family support
  - Motivation
  - Attitude about school
  - Experience in school
  - Academic performance
  - Retention rate
  - Parents' education level
  - Sibling data

- What are the characteristics of the staff?

  Some characteristics to consider are:

  - Years of experience
  - Years at a grade level
  - Years in the school
  - Past experience with staff development
  - Motivation
  - Performance/ability
  - Attitude
  - Sense of efficacy
  - Response to change
  - Collegiality
  - Extent to which teachers' preparation aligns with teaching assignments
  - Level of education

- What are some characteristics of our formal and informal leadership for both teacher and administrators?

  Some characteristics to consider are:

  - Leadership style
  - Roles of formal and informal leaders
  - Level of participation in leadership activities
  - Opportunities to be involved in leadership roles/activities
  - Trust in leadership
  - Support by leadership
  - Support for leadership
  - Level of communication

- What are some characteristics of our community?

  Some characteristics to consider are:

  - Support for education

- Support for the school
- Involvement in school activities
- Support for students
- Support for staff development

- What resources are available to support the staff development program?

  Some considerations are:
  - Budget
  - Time
  - Support personnel in the building
  - Support personnel outside the building
  - Union contract
  - Incentives

Step 3 — Establish clear, measurable outcomes for the staff development program.

Schools must understand what they hope to accomplish in terms of both student and teacher learning as a result of their staff development efforts. Without a clear goal and specific target, it is easy to miss the mark. Key questions about outcomes are: (1) What results do we seek for students? (2) What results do we expect for staff? (3) What practices, procedures, and policies will affect the achievement of these goals?

Intended results are stated in terms of student achievement. Actions or changes that occur for teachers and principals are means to achieve the goal of increased student achievement and are best as objectives rather than outcomes or goals. In other words, expected outcomes are stated in terms that allow the school to know if it has or has not achieved the intended results. Too often, results are stated in terms of the means to the end rather than results themselves.

For example, a goal that states, "One hundred percent of the staff will participate in training in brain-based learning" does not say what will happen for students as a result of this training. This is an action to accomplish the desired results — increasing student achievement. A preferable goal is one that states, "In three years, 90% of students will read on grade level as a result of teachers learning and implementing new instructional strategies." The latter goal is focused on the end result of the staff development, rather than on what occurs in the process.

Step 4 — Assess teacher and principal learning needs.

Many staff development programs begin with needs assessments that ask adult learners to identify what they want to learn. This common practice often leaves a gap between what educators want to learn and what they may need to learn to address the identified goals. For example, teachers are often eager to learn about new educational innovations, and principals may want to learn how to shortcut nagging managerial tasks. However, if the goal is to increase students' reading performance and comprehending and interpreting nonfiction text have been identified as the areas of greatest deficit, both teachers and principals have a specific need to develop their skills and knowledge in this area to teach and support classroom instruction in reading nonfiction text. Staff development on unrelated topics may deflect staff development time and resources from the established school goals.

Once educators' learning needs are identified, staff development leaders consider specific actions for meeting the identified learning needs. The scope and content of the necessary staff

development program will be clearer when the school leadership team has a clear understanding of student learning needs, the context and conditions of the school or district, the specific goal, and the learning needs of educators.

Step 5 — Study the staff development programs described in the guide.

Before determining how to accomplish the goal, the school team will examine proven staff development programs, those that have evidence of their impact on student learning. Too often this important step is overlooked. School staffs often fail to conduct a critical review of what is available and what has proven successful. In their urgency and enthusiasm to improve student performance, school staffs may pass over this step and select or adapt programs with which they are unfamiliar. This guide is particularly useful for this review because it describes programs that have proven success in increasing student achievement. It also identifies the content of those programs so that schools can determine the degree to which the content aligns with all identified educator learning needs determined in Step 4.

In examining programs, consider the following questions:

- Which programs address the skills and knowledge we have identified as educator learning needs?
- What programs are being used in schools with similar demographics?
- If our school's characteristics do not match those of schools in which the program was successfully implemented, what are the key differences? How likely are those differences to interfere with the program's success?
- What changes could be implemented to increase the likelihood of success?
- What aspects of the program (if any) might need to be modified to accommodate the unique features of our school?
- What are the strengths and weaknesses of the program?
- What school, district, and community support was required to make the program successful?

After examining successful programs, the school team determines if it will adopt or adapt an existing program or create its own program. This is a significant decision that is made with careful thought. When making this decision, members of the school team will be deciding where to place their energy and resources for the long run. Too often schools fail to achieve success because they apply a "revolving door approach" to innovations; that is, a series of experts "pop in" to prescribe the best treatment for the problem. Sometimes staff development or improvement efforts are viewed as temporary intrusions that staff can "wait out." In fact, any staff development intervention adopted requires a new way of doing business, one that the staff will fully commit to and one that the staff fully expects to become a routine part of their everyday practice. Without this level of commitment, no staff development intervention holds a promise of improving student and teacher learning.

Step 6 — Plan for implementation, institutionalization, and evaluation.

As new programs begin in schools, few leaders or participants look beyond the immediate school year. However, if an intervention is carefully selected, it will become a new way of doing

business. To make the transition between new ideas and routine practice, a plan to support implementation and institutionalization is important. School teams must plan for a variety of long-range processes: dealing with the challenges of beginning a new program; sustaining the focus, energy, and resources to ensure success; and adopting procedures to provide ongoing formative — and eventually summative — evaluations of the program.

After a staff development program has been selected, adapted, or designed and before implementing a program, answer these questions:

- How will we assess the initiation, implementation, and institutionalization of the program?
- How will we support the program?
- How will we support the individuals involved?
- What are we equipped to do ourselves to support and implement the program, and what outside resources will we need?
- What resources are we dedicating to the program?
- What is our timeline for full implementation?
- What benchmarks along the way will help us know if we are being successful?
- Are we willing to commit time, energy, and financial resources to this effort for the long term?
- How will we align this new initiative with existing ones? What might we need to eliminate to make resources available for this program?
- How closely do the goals of this program align with our school's improvement goals and the district's strategic goals?

The worksheet on pages 220 and 221 is a tool for reviewing staff development programs. As schools are studying various staff development options, the worksheet offers a framework for collecting information about each program option and for comparing programs prior to making decisions about which program to select and implement. The areas of the worksheet correspond to the criteria used to select programs for inclusion in What Works in the Elementary School: Results-Based Staff Development. Once completed, the worksheet becomes a handy reference guide to each program being considered.

With a completed worksheet for each program under consideration, staff development leaders or teams will find it easier to compare programs and select the best program to address the needs of their school or district. After this initial study is completed, school and district staff members will be better equipped to make informed decisions about appropriate staff development interventions to address the identified student achievement needs.

When planning the evaluation of a staff development program, staff development leaders will (1) assess the design of the staff development program to determine if it is thorough, well-conceived, and able to be implemented; (2) identify the key questions they hope to answer; and (3) design the evaluation framework, which is the plan for conducting the evaluation. Such plans include data collection methodology, data sources, personnel to conduct the evaluation and a timeline (Killion, 2002). Also, plans for both formative and summative evaluation are necessary.

Staff Development Program Review

Program Title
Content Area(s)
Grade(s)

Contact Name _____
Address _____
_____
Phone _____
Fax _____
E-mail _____
Web site_____

Program Goals

Evidence of Success	Yes	No	Measure	Notes
Student Achievement				
Student Behaviors				
Student Attitudes				
Teacher Content Knowledge				
Teacher Behaviors/Practices				
Teacher Attitudes				

Program Content	Notes
Content	
Pedagogy	

Staff Development Processes					
Models of Staff Development	Yes	No	Frequency	Length	Notes
Individually Guided Staff Development					
Observation and Assessment					
Training					
Development or Improvement Process					
Inquiry or Action Research					

Follow-up	Yes	No	Notes
Classroom-based			
Nonclassroom-based			

Program Context			
Geographic	Yes	No	Notes
Rural			
Urban			
Suburban			
Other			

Student/School Demographics	Notes
Ethnic/Racial	
Socioeconomic Status	
Size of School/District	
Teaching Staff	

Support Needed	Notes
Community	
District	
Building	

Other Features	Notes

Intended Participants	Yes	No	Notes
Individual teachers			
Team			
Grade Level			
School			
District			

Cost	Yes	No	Notes
Honorarium			
Travel Costs (airfare, lodging, meals, etc.)			
Materials			
Other			

Site Reference	Site Reference	Notes
School Name Address Phone Fax		

A formative assessment allows staff development leaders to know how well the program is being implemented and answers questions such as:

- Are the program activities being implemented as planned?
- Are resources adequate to implement the program as planned?
- To what degree are differences occurring in implementation that may influence the program's results?

A summative evaluation allows staff development leaders to know what impact the program has had and answers questions such as:

- Have the intended results been achieved?
- What changes have occurred as a result of the program?
- What changes has the program influenced for students?
- What changes has the program influenced for staff?

Planning the evaluation, while planning the program and its implementation, provides greater options for evaluation. It helps identify important baseline data to collect that may be necessary for determining what impact the program has had. It gives both the staff development leaders and the evaluator greater clarity about how the program is intended to work, thus increasing the likelihood that the program will be implemented as designed and that the intended results will be realized.

Step 7 — Implement, sustain, and evaluate the staff development program.

To be fully implemented, a program requires constant nurturing and support. In order to continuously improve a program, school teams will use data about the program to make regular adjustments and refinements to strengthen the results. This nurturing is the primary responsibility of the school leaders including the principal and teacher leaders. With a long-term commitment, a focus on results for students, and clear indicators of success, a school team has the necessary resources to monitor and make adjustments, strengthening the results of the program and ensuring success.

Implementing a program requires that those responsible for implementation have a clear understanding of what implementation means and looks like. One tool for reaching agreement on the acceptable level of implementation is an innovation configuration that describes and defines the essential features of a program (Hall & Hord, 2001). Attention to setting expectations and standards for acceptable implementation will make a significant difference in the quality of implementation.

Once the program is implemented, attention can turn toward sustaining the program. In other words, "How will school teams keep the focus on the results, provide the necessary resources to continue the program, and use data about the program to continually improve it?" If a program is fully implemented, sustaining it becomes easier, yet requires constant attention and resources.

Evaluating the program provides information about the program's impact and valuable data to improve its results. Using both formative and summative evaluation processes will provide the best data for school teams to use to continually improve the program and increase the likelihood that it will achieve the results it strives to achieve (Killion, 2002).

Educational Research Service. (1998). Comprehensive models for school improvement: Finding the right match and making it work. Arlington, VA: Author.

Hall, G., & Hord, S. (2001). Implementing change: Patterns, principles, and potholes. Boston, MA: Allyn & Bacon.

Killion, J. (2002). Assessing impact: Evaluating staff development. Oxford, OH: National Staff Development Council.

CHAPTER 12

Next Steps for Staff Development Leaders and Providers

What Works in the Elementary School: Results-Based Staff Development is another step in the journey of demonstrating the link between staff development and student achievement and ensuring teachers have access to quality staff development that advances their content knowledge and content-specific pedagogical processes. To take this work to the next stage requires the support of staff development leaders, at both the school and district level, and of staff development providers, evaluators, and researchers. This last chapter outlines some of the next steps needed to move forward.

This book represents two years of work by a large number of people. Those who pick it up and thumb through it or read it more carefully will wonder how it can apply to their work. While it is difficult to suggest exactly how the guide can help every reader, the steps below represent several next logical actions for those wishing to strengthen their current staff development practices. Taking any one of the steps will advance the quality of most staff development programs to some degree; yet, to have the kind of success the programs in this book had, staff development leaders will want to take each step to create the type of professional learning that increases student achievement.

To have the kind of success the programs in this book had, staff development leaders will want to take each step to create the type of professional learning that increases student achievement.

This work is not easy, nor can it be done quickly. It requires diligence, leadership, and dedication. The benefits will be grand. Teachers will not only feel more confident and efficacious, but also will likely be more satisfied with their work and stay in their jobs longer. They will feel more professional and empowered to make bold decisions and take essential actions to bolster student learning. They will eagerly assume leadership roles and share their expertise for the benefit of others. School communities will respect teachers and support them. And, students will be the grand prize winners!

Steps to High-Quality Professional Learning

1. Provide content-rich, intellectually challenging professional learning.

Teachers not only deserve but also require quality staff development that relates to their subject area content and content-specific pedagogical processes in order to assist their students to meet rigorous content standards. They are eager to delve deeply into content, understand it, and use that understanding to make decisions about how to teach local, state, and national standards. In selecting, designing, and delivering professional learning decisions about the content of staff development, decisions are best made with evidence of student performance data – and educator learning needs in relationship to those data – in hand.

2. Create powerful learning experiences.

To be most effective, learning designs for teachers ensure that the learning experience is powerful, challenging, and supported with appropriate follow-up. They will challenge teachers' belief systems and knowledge constructs and enhance their skills to teach and relate to students, their community, and their colleagues. Staff development will create cognitive dissonance in learners,

strengthen their efficacy and determination to succeed, and challenge their understanding of the content area. High-quality professional learning will help teachers understand how to teach their content and how students best learn in a particular discipline. Teachers can expect for themselves what they provide their students: intellectually rigorous learning experiences.

3. Use appropriate models of professional learning.

Many of the programs in What Works in the Elementary School: Results-Based Staff Development use training as the core model of professional development. However, in developing staff development plans, school and district staff development leaders and providers more routinely are incorporating other models of job-embedded staff development. Too often, training alone is equated with staff development. In reality, other models of staff development more closely related to the real work of teachers may promote higher levels of learning for both teachers and students. These models include coaching, action research, examining student work, lesson study, demonstration and modeling, collaborative planning and development, videotape analysis, and study groups among others. Effective learning designs will depend less on external experts as the sole source of knowledge and will facilitate teacher-to-teacher learning and a broader sharing of individual expertise and collaborative construction of knowledge.

Effective learning designs will depend less on external experts as the sole source of knowledge and will facilitate teacher-to-teacher learning and a broader sharing of individual expertise and collaborative construction of knowledge.

In addition to employing the most appropriate model of learning, staff development leaders and providers will want to ensure ongoing follow-up and support to facilitate transfer of learning to routine practice. Bringing about changes in teachers' understanding of their subject area and in their instructional practices requires ongoing, long-term school- and classroom-based support. Frequently, staff development is followed by inadequate support. Effective support systems provide personalized feedback for refinement and reflection on practice and are best if they focus equally on teacher knowledge, instructional practice, and student work.

4. Gather evidence to demonstrate the impact of staff development on student achievement.

Both staff development providers and leaders clearly state their expectations and are accountable for achieving the intended results. They gather and share evidence of the impact that staff development has on student achievement. Past evaluations of staff development have too often focused on teachers' satisfaction with the learning process and model and what the participants have learned in the professional development experience, rather than the ultimate result: how well student learning improves. While measuring staff development results in terms of student achievement is challenging, it is doable with thorough planning. For too long, this form of evaluation has been bypassed in favor of simpler and less informative means of evaluation.

Researchers and school and district leaders working in collaboration can identify increasingly better methods to link staff development and student achievement. With these newer and more streamlined evaluation methodology, staff development leaders and providers can replace current evaluation methods that require considerable time and cost and that may be impractical for some schools and districts. The combined efforts of researchers and practitioners will yield more practical ways of demonstrating the link between staff development and student achievement.

5. Become savvy consumers of staff development programs.

Staff development leaders need to ask more questions and demand more information prior to selecting teacher enhancement programs. Rather than selecting staff development programs solely on the quality of their design or the popularity of their content, staff development programs are most successful when:

- they align with local needs, including both student and educator learning needs;
- they align with the National Staff Development Council's Standards for Staff Development, Revised (2001); and
- they have a track record of success in increasing student achievement.

The programs included in this book are such programs; yet even the use of these successful programs can falter if the program's content or design, or the context in which the program is implemented is not supportive of high-quality professional learning. What Works in the High School: Results-Based Staff Development, provides guidelines to help schools and districts select staff development programs that have evidence of their impact on student achievement.

6. Create organizational structures to support ongoing teacher learning.

The link between teacher learning and student learning is clearer now as a result of What Works in the Elementary School: Results-Based Staff Development, its middle and high school companion editions, and the initiatives from which they evolved. Staff development is necessary, but by itself cannot effectively increase student learning. Higher levels of teacher learning occur in collaborative, supportive schools that value continuous improvement and that allocate time and resources to teacher learning. Policy makers and staff development leaders are responsible for establishing the context that will support powerful, continuous staff development.

Higher levels of teacher learning occur in collaborative, supportive schools that value continuous improvement and that allocate time and resources to teacher learning.

The context that supports staff development includes time for regular learning within educators' workday. The National Staff Development Council advocates that 25% of teachers' work time be devoted to professional learning. In addition to time, resources to support adult learning are necessary. Ten percent of the budget, according to the National Staff Development Council, is necessary to provide the human and fiscal resources to support professional learning (NSDC, 2001). The development of learning communities that recognize and support learning of all members and establish common goals for learning builds a culture that expects ongoing learning of all of its members. Yet, nothing will change if leadership does not advocate for high-quality professional learning and ensures that the time and resources as well as the sense of community are present in each school. Stephanie Hirsh, deputy executive director of NSDC, has on more than one occasion remarked that "if we put a good person in a bad system, the system will win every time."

7. Create systems and structures to sustain programs once they are in place.

Schools and districts often expend a tremendous amount of energy designing and developing staff development initiatives. As a result, little effort is reserved for ensuring in-depth implementation, and even less is allocated to institutionalizing or sustaining a program over time. If

the initiative is to be successfully integrated into the educational system, effective staff development leaders balance their effort, their resources, and their attention to the initiation. implementation, and institutionalization phases. Particular attention is given to sustaining the focus of the initiative by these means:

- reducing competitive programs;
- continuing the training and development for newly hired teachers;
- providing tiered assistance;
- aligning other systems (such as the compensation, supervisory, and recognition systems) to support the initiative;
- providing frequent formative assessment; and using assessment data to make adjustments.

8. Use What Works in the Elementary School: Results-Based Staff Development to advance the conversations.

This resource guide is provided as a tool to assist schools and districts to make savvy decisions about staff development in order to increase student achievement. It provides model staff development programs that have successfully impacted student learning. It offers strategies for evaluating the impact of staff development. It offers a synopsis of current results-based practices in the field of staff development programs. It can serve as the conversation starter about a number of issues related to linking staff development and student achievement. Staff development leaders can also use this resource guide to stimulate new conversations and continue the search for answers to the critical question posed in the guide: What kind of staff development increases student learning?

Measure of Our Success

Further study and analysis of the relationship between staff development and student achievement are necessary. If What Works in the Elementary School: Results-Based Staff Development generates more dialogue about the link between staff development and student achievement, it will be successful. If schools gain ideas about how to evaluate their staff development effort in terms of student achievement, it will have made a contribution. If experts in research, evaluation, and measurement join in the search to identify and design new evaluation tools and methods that schools and districts can use to demonstrate the link between staff development and student achievement, schools will continuously improve. If more results-based programs are identified and included in the next edition of this book, this guide will have made a critical impact. And, if the quality of staff development increases and students achieve at higher levels, the value of this work will be fully realized.

Staff development leaders can also use this resource guide to stimulate conversations and continue the search for answers to the critical question posed in the guide: What kind of staff development increases student learning?

References

National Staff Development Council. (2001). National Staff Development Council's standards for staff development, revised. Oxford, OH: Author.

RESOURCES

Staff Development

Cawelti, G. (1999). Handbook of research on improving student achievement (2nd ed.). Arlington, VA: Educational Research Services.

Collins, D. (1997). Achieving your vision of professional development: How to assess your needs and get what you want. Tallahassee, FL: SouthEastern Regional Vision for Education (SERVE).

Darling-Hammond, L., & Sykes, G. (Eds.) (1999). Teaching as a learning profession: Handbook of policy and practice. San Francisco: Jossey-Bass.

DuFour, R., & Eaker, R. (1998). Professional learning communities at work: Practices for enhancing student achievement. National Education Services.

Fullan, M. (2001). The new meaning of educational change (3rd ed.). New York, NY: Teachers College Press.

Guskey, T. (2000). Evaluating professional development. Thousand Oaks, CA: Corwin Press.

Hall, G., & Hord, S. (2001). Implementing change: Patterns, principles, and potholes. Boston, MA: Allyn & Bacon.

Joyce, B., & Showers, B. (1995). Student achievement through staff development. New York: Longman.

Killion, J. (1999). What works in the middle: Results-based staff development. Oxford, OH: National Staff Development Council.

Killion, J. (2002). Assessing impact: Evaluating staff development. Oxford, OH: National Staff Development Council.

National Staff Development Council. (2001). By your own design: A teacher's professional learning guide. http://www.enc.org/professional/guide/

National Staff Development Council. (2001). National Staff Development Council's standards for staff development, revised. Oxford, OH: Author.

Powerful designs. (1999, Summer) Journal of Staff Development, 20 (4).

Schmoker, M. (1996). Results: The key to continuous school improvement. Alexandria, VA: Association of Supervision and Curriculum Development.

Sparks, D. (2002). Designing powerful professional development for teachers and principals. Oxford, OH: National Staff Development Council. http://www.nsdc.org/sparksbook.html

Sparks, D., & Hirsh, S. (1997). A new vision for staff development. Oxford, OH: National Staff Development Council.

Language Arts

Anderson, C. (2000). How is it going? Portsmouth, NH: Heinemann.

Birchak, B., Connor, B., Crawford, K., Kahn, L., Kaser. S., Turner, S. & Short, K. (1998). Teacher study groups: Building communities through dialogue and reflection. Urbana, IL: National Council of Teachers of English.

Calkins, N. (1994). The art of teaching writing. Portsmouth, NH: Heinemann.

DiPardo, A. (1998). Teaching in common: Teachers collaborating in classrooms and schools. Urbana, IL: National Council of Teachers of English.

Fleischer, C. (2000). Teachers organizing for change: Making literacy learning everybody's business. Urbana, IL: National Council of Teachers of English.

National Council of Teachers of English. (2000). Trends and issues in elementary language arts (2000 edition). Urbana, IL: Author.

National Council of Teachers of English and the International Reading Association. (1995). Standards for the language arts. Urbana, IL: National Council of Teachers of English.

Romano, T. (2000). Blending genre, altering style. Portsmouth: NH: Heinemann.

Wilhelm, J. (2001). Strategic reading. Portsmouth, NH: Heinemann.

Mathematics

Aichele, D. & Coxford, A. (Eds.) (1994). Professional development of teachers of mathematics: 1994 yearbook. Reston, VA: National Council of Teachers of Mathematics.

Cuevas, G., & Yeatts, K. (2001). Navigating through geometry in grades 3-5. Reston, VA: National Council of Teachers of Mathematics.

Curcio, F. (2002). Japanese lesson study: Ideas for improving mathematics teaching. Reston, VA: National Council of Teachers of Mathematics.

Eisenhower National Clearinghouse. (1998). Ideas that work: Mathematics professional development. Columbus, OH: Author.

Gavin, M., Blekin, L., Spinelli, A., & St. Marie, J. (2001). Navigating through algebra in grades 3-5. (2001). Reston, VA: National Council of Teachers of Mathematics.

Greenes, C., Cavanagh, M., Dacey, L., Findell, C., & Small, L. (2001). Navigating through algebra in prekindergarten-grade 2. Reston, VA: National Council of Teachers of Mathematics.

Loucks-Horsley, S., Hewson, P., Love, N., & Stiles, K. (1998). Designing professional development for teachers of science and mathematics. Thousand Oaks, CA: Corwin Press.

Ma, L. (1999). Knowing and teaching elementary mathematics: Teachers' understanding of fundamental mathematics in China and the United States. Mahwah, NJ: Lawrence Erlbaum Associates.

National Council of Teachers of Mathematics. (1989). Curriculum and evaluation standards for school mathematics. Reston, VA: Author.

National Council of Teachers of Mathematics. (1991). Professional standards for teaching mathematics. Reston, VA: Author.

National Council of Teachers of Mathematics. (1995). Assessment standards for school mathematics. Reston, VA: Author.

National Council of Teachers of Mathematics. (2000). Principles and standards for school mathematics. Reston, VA: Author.

Smith, M. (2001). Practice-based professional development for teachers of mathematics. Reston, VA: National Council of Teachers of Mathematics.

Stein, M., Smith, M., Henningsen, M., & Silver, E. (2000). Implementing standards-based mathematics instruction: A casebook for professional development. Reston, VA: National Council of Teachers of Mathematics.

The Teacher Education Materials Project. http://www.te-mat.org/

Science

Eisenhower National Clearinghouse. (1998). Ideas that work: Science professional development. (1998 edition). Columbus, OH: Author.

Loucks-Horsley, S., Hewson, P., Love, N., & Stiles, K. (1998). Designing professional development for teachers of science and mathematics. Thousand Oaks, CA: Corwin Press.

National Research Council. (1995). National science education standards. Washington, DC: National Academy Press.

National Research Council. (1996). The role of scientists in the professional development of science teachers. Washington, DC: Author.

National Science Teachers Association. (2001). Atlas of science literacy. Arlington, VA: Author.

NSTA Pathways to Science Standards: Guidelines for moving the vision into practice (elementary). (2000). Arlington, VA: National Science Teachers Association.

Rhoton, J. & Bowers, P. (2001). Professional development leadership and the diverse learner. Volume III in the Issues in Science Education (2001). Arlington, VA: National Science Teachers Association.

Rhoton, J., & Bowers, P. (2001). Professional development planning and design. Volume II in the Issues in Science Education (2001). Arlington, VA: a Science Teachers Association.

The Teacher Education Materials Project. http://www.te-mat.org/

Social Studies

Center for Civic Education. (1994). National standards for civics and government. Calabasas, CA: Author.

Geography Education Standards Project. (1994). Geography for life: National geography standards. Washington, DC: National Geographic Research and Exploration.

National Center for History in Schools (1994). National standards for United States history: Exploring the American experience. Los Angeles: Author.

National Center for History in the Schools. (1994). National standards for world history: Exploring paths to the present. Los Angeles: Author.

National Council for the Social Studies. (1994). Expectations of excellence: Curriculum standards for the social studies. Washington, DC: Author.

National Council for the Social Studies (1997). National standards for social studies teachers. Washington, DC: Author.

About the Author

Joellen is the Director of Special Projects for the National Staff Development Council. In her work with NSDC, Joellen focuses on improving teacher quality and student learning. She is currently working on several projects involving results-driven staff development and the evaluation of staff development. She authors NSDC's column on Code of Ethics and is a frequent contributor to the Journal of Staff Development. The initial volume in the What Works series was What Works in the Middle: Results-Based Staff Development. That guide summarized a two-year study of content-specific staff development for the middle grades teachers. This volume and an accompanying volume for high school conclude the series. Her study of schools that have received the U.S. Department of Education's Model Professional Development Awards, sponsored by the U.S Department and WestEd, resulted in Teachers Who Learn, Kids Who Achieve: A Look at Model Professional Development. In the past two years, she has studied online learning and its role in professional development. This study resulted in E-Learning for Educators: Implementing the Standards. Her most recent book, Assessing Impact: Evaluating Staff Development, offers staff development leaders and providers guidance on measuring the impact of professional learning on student achievement.

The creed Joellen lives by is:

Excellence can be achieved if you . . .
Care more than others think is wise . . .
Risk more than others think is safe . . .
Dream more than others think is practical . . .
Expect more than others think is possible.

Joellen can be reached at:

National Staff Development Council
10931 W. 71st Place
Arvada, CO 80004 – 1337
(303) 432-0958
(303) 432-0959 fax
(303) 421-8271 home
nsdckillio@aol.com

NSDC MISSION

NSDC's mission is to ensure success for all students by serving as the international network for those who improve schools and by advancing individual and organization development.

The National Staff Development Council is a nonprofit educational association with 10,000 members who are primarily district administrators, principals, and teachers committed to high levels of learning and performance for all students and staff members.

Information about membership, the annual conference, academies for staff developers, state affiliates, and other services is available from:

National Staff Development Council

P.O. Box 240

Oxford, OH 45056

(800) 727-7288

Fax: (513) 523-0638

E-mail: NSDCoffice@aol.com

www.nsdc.org