



APPENDICES

**APPENDIX A—
U.S. DEPARTMENT OF EDUCATION AWARD CRITERIA AND STEP-BY-STEP ACTIONS**

Professional Development Activities	Model Professional Development Award Criteria
<p>I. Designing Professional Development</p> <ul style="list-style-type: none"> A. Include participants and organizers in the professional development design process. B. Make a clear plan that includes: <ul style="list-style-type: none"> 1. How professional development supports the school/district’s long-term plan. 2. A professional development needs assessment process. 3. Professional development goals, including: <ul style="list-style-type: none"> a. Improving all students’ learning. b. Improving teacher effectiveness. c. Setting high standards for teachers. d. Promoting continuous staff learning. e. Enhancing staff intellectual and leadership capacity. 4. Professional development content, process, and activities. 5. Research that supports the chosen content/process for professional development. 6. Resources available to support professional development. 7. Professional development evaluation steps. C. Share the plan with the school community. 	<ul style="list-style-type: none"> • The plan includes a clear description of the infrastructure, content, and process components of professional development. • The plan describes specific content, instructional strategies, and learning activities that are designed to reach the professional development goals. • The plan includes a continuous process for ensuring that the school community understands how the professional development components fit together and connect to the overall school or district improvement plan. • The professional development design includes a comprehensive evaluation. • Professional development goals are clearly stated. • Expected changes in teaching and student learning, which should result from broad participation in professional development, are stated. • Professional development goals focus on improving all students’ learning. • Professional development goals are based on needs assessment. • Professional development goals are part of a long-term school improvement plan. • Professional development goals and outcomes focus on increasing teachers’ expertise in teaching to high standards. • Professional development goals were developed through an inclusionary process. • The professional development plan meets U.S. Department of Education principles. (See note.)
<p>II. Implementing Professional Development</p> <ul style="list-style-type: none"> A. Stay abreast of and incorporate best practices into teaching, learning, and leadership. B. Make sure school/district policies and practices support actual professional development implementation for staff. C. Ensure that resources remain available to organize and implement professional development. D. Make professional development part of everyday life at school. 	<ul style="list-style-type: none"> • Professional development activities reflect the best available research and practice in teaching, learning, and leadership. • Organizational structures support the implementation of professional development activities on the individual, collegial, and organizational levels. • Sustained resources (e.g., human, fiscal, and technological) are committed to support the professional development plan. • Professional development is integral to the school culture and promotes continuous inquiry and improvement.

Professional Development Activities	Model Professional Development Award Criteria
<p>III. Evaluating and Improving Professional Development</p> <p>A. Use professional development design goals to determine evaluation measures and standards for success.</p> <p>B. Clarify who is accountable for collecting, analyzing, and reporting data and for facilitating “professional development next steps” decisions.</p> <p>C. Use evaluation findings to make improvements in professional development.</p> <p>D. Ensure that evaluation criteria include at least:</p> <ol style="list-style-type: none"> 1. Improvement in teaching. 2. Improvement in student learning. 3. Narrowing of student achievement gaps. 	<ul style="list-style-type: none"> • The school/district has a process for monitoring and documenting the alignment of the school improvement plan(s), professional development activities, and teacher and student outcomes. • The data collected are used to make appropriate programmatic adjustments to professional development. • The data collected provide evidence that the professional development activities lead to improved teaching. • The data collected provide evidence that the professional development activities lead to improved student learning. • The data collected provide evidence that the professional development activities lead to narrowing student achievement gaps.
<p>IV. Sharing Professional Development Learning</p> <p>A. Document your decisions clearly.</p> <p>B. Keep implementation materials organized and available to others.</p>	<ul style="list-style-type: none"> • The school/district has an adequate description of the program and its components that would be useful to other schools and districts. • The school/district states ways in which others could benefit from what it has learned about professional development.

Note: U.S. Department of Education principles for high-quality professional development are restated and included in the awards criteria. The specific wording of the principles is provided below.

High-quality professional development:

- 1.** Focuses on teachers as central to student learning, yet includes all other members of the school community.
- 2.** Focuses on individual, collegial, and organizational improvement.
- 3.** Respects and nurtures the intellectual and leadership capacity of teachers, principals, and others in the school community.
- 4.** Reflects the best available research and practice in teaching, learning, and leadership.
- 5.** Enables teachers to develop further expertise in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards.
- 6.** Promotes continuous inquiry and improvement embedded in the daily life of schools.
- 7.** Is planned collaboratively by those who will participate in and facilitate that development.
- 8.** Requires substantial time and other resources.
- 9.** Is driven by a coherent long-term plan.
- 10.** Is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning, and this assessment guides subsequent professional development efforts.

APPENDIX B— PROFESSIONAL DEVELOPMENT RESOURCES

National Staff Development Council Web Site www.nsdcc.org

A comprehensive resource for information about professional development is the National Staff Development Council's Web page. In addition to providing information about the Council and its mission, the site contains selected articles from the *Journal of Staff Development*, a well-respected journal devoted to issues surrounding staff training and preparation.

Another excellent resource available through NSDC's online bookstore is *The National Staff Development Council's Standards for Staff Development*, which includes an elementary, middle, and high school edition. Each standard is accompanied by a two-page discussion that includes a rationale, examples, outcomes, discussion questions, references, and space for notes and responses. The document also includes an assessment instrument and suggestions for use.

U.S. Department of Education Teacher Quality Web Site

www.ed.gov/inits/teachers/teach.html

The Teacher Quality Web page within the U.S. Department of Education Web site includes information about the National Awards Program for Model Professional Development, research reports and links to information about the latest research in professional development, and information about the availability of grants to fund professional development efforts.

Pathways to School Improvement Web Site www.ncrel.org/sdrs/areas/pd0cont.htm

NCREL's *Pathways to School Improvement* Web site offers information for schools interested in designing and evaluating effective professional development. The site includes a Trip Planner Inventory that helps schools analyze current practices and points them toward specific resources within the site. This Web site also includes research information on critical professional development issues, such as program evaluation and finding time for professional development.

Achieving Your Vision of Professional Development: How to Assess Your Needs and Get What You Want SouthEastern Regional Vision for Education (SERVE)

This "how-to" resource guide offers many tips to help at each stage of building an effective professional development system. The guide includes tips for developing a vision, creating a context for change, planning, investing resources, providing continual assistance, and assessing and monitoring progress. It also includes summaries of the 1997-98 winners of the National Awards Program for Model Professional Development and five examples of model schools. The guide is available through SERVE's online bookstore at www.serve.org/publications/list.htm

Northwest Regional Educational Laboratory Web Site www.nwrel.org

This site provides good information on professional development, including *By Request... June 1998*, which examines the principles of high-quality professional development and provides some guiding questions for selecting activities.

Student Achievement Through Staff Development

Joyce, B., & Showers, B. (1988). White Plains, NY: Longman.

This well-researched guide to staff development includes a training model. The authors stress the importance of follow-up activities and they provide guidelines for developing follow-up components, such as immediate and sustained practice, sharing, and peer observation and coaching.

What to Consider When Evaluating Staff Development Guskey, T. & Sparks, D. (1991). *Educational Leadership*, 49(3), 73-76.

This article offers a thoughtful and succinct examination of the issues surrounding effective evaluation of professional development activities.

The Federal Regional Educational Laboratories

These sites have current information about professional development and/or related topics (e.g., technology, specific curriculum topics, school management).

Appalachia Educational Laboratory (AEL)

www.ael.org

Laboratory for Student Success (LSS)

www.temple.edu/departments/LSS

Mid-continent Research for Education and Learning (McREL)

www.mcrel.org

North Central Regional Educational Laboratory (NCREL)

www.ncrel.org

Northeast and Islands Regional Educational Laboratory at Brown University (LAB at Brown University)

www.lab.brown.edu

Northwest Regional Educational Laboratory (NWREL)

www.nwrel.org

Pacific Resources for Education and Learning (PREL)

www.prel.org

SouthEastern Regional Vision for Education (SERVE)

www.serve.org

Southwest Educational Development Laboratory (SEDL)

www.sedl.org

WestEd

www.wested.org

APPENDIX C— NATIONAL AWARDS PROGRAM FOR MODEL PROFESSIONAL DEVELOPMENT WINNER PROFILES

1996-97

Lawrence Public Schools, Lawrence, Kansas

The Lawrence, Kansas (PreK-12) School District set about to transform professional development in response to the Quality Performance Accreditation (QPA) Initiative adopted by the State Board of Education. The QPA holds schools accountable for demonstrating student progress and mandates both site-based councils and school improvement plans. The state also requires that professional development initiatives connect activities with impact on instructional strategies and student achievement. Lawrence volunteered to pilot this accreditation model and has added more schools each year. The central office staff has developed a strong theoretical base for integrating instructional improvement, curriculum development, and professional development.

All schools are now required to craft a school improvement plan each year that details the connection between professional development and student achievement. A local School Inservice Council—composed of teachers, principals, parents, and community representatives—develops the plan and forwards it for review to the Local (district) Inservice Council (LIC), which is composed of teachers from each school, administrators, curriculum coordinators, and early childhood specialists. The LIC meets monthly and provides an opportunity for both oversight and cross-school sharing/collaboration. It is here that an assessment is made concerning the inclusion of state and district goals. Each school must detail plans to use the six half-days set aside by the district for professional development; the district staff plan for two or three additional days. In addition to school plans, teachers submit individual professional development plans that require support beyond that provided in the school plan.

At the end of the year, each school must make a presentation to the LIC detailing the effectiveness of the plan for that year. This “results-based” planning and evaluation focuses attention both on student achievement data and on levels of implementation by teachers of strategies detailed in the school improvement plans.

Samuel W. Mason Elementary School, Roxbury, Massachusetts

Samuel Mason is a controlled-choice school in the Boston Public Schools. The appointment of a new principal in 1990 saved the school from closure. This principal had a vision that incorporated a belief in site-based management and concern for all the students in the building. The groundwork for the professional development model was begun in 1990 with the creation of the School-Based Management/Shared Decision Making Team. The initial focus for this group was school improvement in instruction, curriculum, and assessment.

The Professional Development Team (comprising teachers, principal, and parents) prepares the yearly school improvement plan that aligns professional development activities with the goals for student achievement. All school staff, including the school secretary and principal, are required to complete personal professional development plans.

The commitment of the teachers at Mason to raising the achievement of all students proved to be an important factor in the subsequent development of a professional development model that is

grounded in analyzing student achievement data and using research on best practices to reform instruction. To connect achievement data with professional development activities, grade-level teams monitor data on a four-week cycle. Adjustments are made to the content of the professional development program based on these periodic assessments.

Data from the Metropolitan Achievement Test in Reading Comprehension show that Mason's average three-year gain for grades 2 to 5 surpassed that of the city of Boston. In addition to these measures, work-sampling assessment, portfolios, and twice-yearly exhibits of students' work in writing, art, and science show growth. Under the new leadership, in five years (1991-96), Mason went from the least chosen (79th) to the 12th most selected school in Boston, while more than doubling its enrollment.

San Francisco Unified School District, San Francisco, California

The San Francisco School District serves a major urban community with a very diverse population. The superintendent issued a set of priorities that included raising the achievement of students scoring in the bottom quartile on standardized tests, developing instructional strategies to better meet the needs of all students, and improving the scope and effectiveness of professional development. In addition, a large inflow of new teachers served as a catalyst for the district to develop effective professional development.

The district's framework for professional development combines centralized activities with site-based initiatives. The professional development initiative requires each school to analyze a broad range of student achievement data (disaggregated by factors such as race, gender, and quartile), rethink their curriculum, and create an improvement plan that connects activities with professional development plans. In the 25 professional development "model schools," for example, each school presents a preliminary plan for review to others in this grouping. This critical feedback is used by the planning committees in each school to refine the school improvement plan. This process also provides an opportunity for schools to collaborate and share resources where appropriate. In the spring, each school evaluates its plan and progress toward implementation by creating a portfolio that is once again submitted to peer schools for review.

Eight days are set aside in the school year for professional development. Three are used by the district and follow the format of a summer institute, multiple follow-up sessions, and targeted on-site activities. One day is set aside for special education issues. The remaining four days are available for individual schools to use. Schools are expected to engage in additional professional development activities beyond these four days.

Test scores for reading and math on the CTBS have been used to show the impact of the professional development program. These data show that there has been a significant growth for all students in focus areas.

Wilton Public Schools, Wilton, Connecticut

The Wilton (PreK-12) School District comprises five schools with an enrollment of 3,100 students. A district professional development plan was created beginning in 1990 that aligned a series of district-sponsored activities to district goals. Math and science were the areas of initial emphasis. Focusing attention and support on a few clearly defined improvement activities is an important cornerstone of the Wilton professional development model. An analysis of test data has been the primary catalyst for professional development activities. Scores are analyzed at the district, school, and individual student levels to determine what professional development activities are needed.

School Planning Teams (comprising teachers, administrators, and parents) develop school improvement plans that are driven by four factors: district goals, curricular needs, student assessment data, and teacher performance needs. Historically, two or three initiatives receive attention for two or three years resulting in a series of specific in-house workshops focused on improving teacher effectiveness.

In addition, a District Professional Development Committee (comprising teachers, administrators, and parents and chaired by a full-time teacher holding the title “Instructional Leader for Professional Development”) develops the district-sponsored activities based on a district needs assessment survey and discussions concerning best practice. This district committee plans the Professional Development Day, held in August each year. It also plans a series of high-interest strands addressed throughout the year. A bimonthly newsletter, distributed by the district administrator for professional development, lists all the conference and workshop opportunities available in the state and beyond. The district also supports a trainer-of-trainers approach to capacity building. More than 40 teachers currently hold instructional leader roles in addition to their regular teaching responsibilities.

SAT and Connecticut Mastery Test scores show significant gains in target areas and are often at the top of the state.

Woodrow Wilson Elementary School, Manhattan, Kansas

At Woodrow Wilson Elementary, three teachers led a change process that focused all staff on improving student learning in target areas, initially math and science. The impetus for change was the Quality Performance Accreditation initiative adopted by the State Board of Education, which holds schools accountable for demonstrating student progress and mandates both site-based councils and school improvement plans. The state required that schools show the connection between professional development activities and instructional strategies.

The three teachers focused their efforts on directing the faculty to reflect on the meaning and subsequent improvement of low student scores in target areas. With relevant summer training, all teachers embarked on a year-long study of ways to implement the National Council of Teachers’ of Mathematics standards schoolwide.

Woodrow Wilson was supported by Kansas State University, which invited Wilson to become a Professional Development School. This initiative involved a number of components that served to focus the energy of the Wilson faculty on developing a plan for professional development and raising questions about ways to improve student performance. A Wilson teacher was appointed Clinical Instructor, with KSU supporting her half-time out of the classroom. KSU faculty worked alongside several Wilson teachers with preservice and inservice teachers. KSU students, working alongside Wilson teachers, sponsored after-school clubs focused on math and science.

Wilson has used a combination of Kansas’s assessment tests, curriculum tests, and performance-based tests to monitor the impact of their work in math and problem solving on student achievement. They have posted large gains on the Kansas math tests (especially for girls) and now are using the same professional development strategies to focus on reading and social studies.

Ganado Intermediate School, Ganado, Arizona

At Ganado Intermediate School, where nearly all students are Navajo, 64 percent have limited English proficiency, and more than 90 percent qualify for free or reduced-price lunch, faculty and staff are succeeding in efforts to improve student achievement by improving teacher effectiveness.

Concerned about low student scores on achievement tests, Ganado embarked on a school improvement plan several years ago that allows teachers, parents, and others to help make decisions on how to improve learning. Ganado formed partnerships with six colleges and universities, modified schedules to provide uninterrupted blocks of team planning time, and improved instruction and assessment for English-as-a-second-language (ESL) learners. They also integrated learning with the Navajo philosophy of education in order to align the curriculum with local values.

One key to Ganado's staff development program is the Career Ladder, in which individual teachers create three-year professional development plans in consultation with the principal and the grade-level team teachers. The plan focuses on student achievement and states specific criteria for success. Because the faculty and staff also focus on outreach to parents, parent participation reached 100 percent last year, up from very low participation just five years ago.

The investment in professional development has paid off in a number of ways. Over the past five years, Ganado has seen significant gains in student achievement on standardized tests, while maintaining a commitment to include special education students in their test results. Test scores reveal that students with limited English proficiency have made gains in reading and writing, and the achievement gap between boys and girls in the school is narrowing.

Geneva City Schools, Geneva, New York

The culture at Geneva City Schools is one in which professional growth is emphasized and teachers and other staff learn from each other.

Leaders at the district and school levels use data on students and continuous input from teachers to guide investments of time and money for professional development. Forty-five hours of professional development are required annually for all professional staff members. Student results are used to identify areas of needed improvement, target professional development efforts, hold teachers accountable, and monitor school and district progress on a continual basis.

The investment in professional development is paying off. Teachers have been working to reverse three years of declining scores on the state reading exam, and in 1997, 99 percent of third graders, including students with special needs, passed. Sixth-grade reading scores also have improved.

In addition, professional development has led to greater understanding of strategies that work to meet the needs of a diverse group of students. Recently, the proportion of students who drop out has declined substantially. Teachers report that as they improve their teaching, students are earning higher test scores, are more motivated to learn, and are more self-disciplined.

H.D. Hilley Elementary School, El Paso, Texas

At H.D. Hilley Elementary, support from the school district, partnerships with outside organizations, and a focus on both students and teachers as learners contribute to the success of the school's professional development. With a population in which 96 percent of the students qualify for free or reduced-price lunch and many students have limited English proficiency, H.D. Hilley's recent scores on the Texas Assessment of Academic Skills have increased substantially. For example, between 1995 and 1997, the proportion of third graders mastering all objectives on the test increased from 30 to 48 percent.

H.D. Hilley has been able to achieve these improvements in large part because a school improvement team—including teachers, parents, community members, and administrators—determines school improvement goals and how the school will target its professional development resources. Multigrade teams involving all the teachers in the school develop strategies to support the goals, and all professional development efforts are linked to these goals. Teams of teachers meet regularly to identify, secure, and assess their professional development. Teachers believe that improving student learning is the ultimate measure of success.

To involve the community, H.D. Hilley sponsors an active parent outreach center run by parents. Collaboration with the El Paso Collaborative for Academic Excellence, the College of Education at the University of El Paso, and the National Science Foundation-funded Urban Systemic Initiative supports the school's professional development activities and commitment to academic excellence.

Hungerford School, Staten Island, New York

At Hungerford, professional development enables teachers; teacher aides; speech, occupational and physical therapists; guidance counselors; administrators; and parents to create improved learning opportunities for all students. The school serves a special-needs population that includes students classified as medically fragile and severely and profoundly retarded.

Among the school's priorities is an annual assessment of student needs designed to guide the school's professional development efforts. Faculty and staff can take advantage of mentoring and site visit opportunities because of a school policy that offers release time for teachers while providing experienced substitutes. Teachers receive one professional development period each day. The school is designated as a Professional Development Laboratory site for the district, hosting teachers and staff from other schools for on-site training. Based on recent assessments of student and teacher needs, many professional development activities have focused on effective strategies for using technology to teach special-needs children.

Hungerford's emphasis on professional development has paid off in student success. The school has seen an 18 percent increase in the number of students participating in general education and a 30 percent increase in the number of students placed at community-based work sites.

International High School at LaGuardia Community College, Long Island City, New York

International High School (IHS) at LaGuardia Community College engages everybody in learning, not just the students. With a high concentration of students from low-income families as well as a large population of recent immigrants who speak 37 different languages, the school has succeeded in narrowing the achievement gap between students with limited English proficiency and those who are native born.

At IHS, the faculty and student body are organized into six interdisciplinary instructional teams. Each team's schedule includes three hours of weekly meeting time. Teachers on the same team observe and coach each other; share best practices; develop, evaluate, and revise curricula; and jointly devise interventions for students who need extra support. While collegial professional development in instructional teams is central, professional development is also focused at individual, school, and multischool levels.

The school's professional development efforts have resulted in student success. Student achievement far exceeds that of other limited-English-proficient students in New York City and compares favorably with more advantaged public schools in the city. In recent years, graduation and attendance rates have increased, and the college acceptance rate exceeds 90 percent each year. In addition, IHS students learn to master English more quickly than do similar students in the city.

Lewisville Independent School District, Lewisville, Texas

The goal of the Lewisville Independent School District is to provide a learning environment that allows all students to reach their full potential. The district believes that the most critical factor in reaching this goal is providing well-prepared teachers who function as learners and teachers. That is why Lewisville has designed and implemented a professional development program that is grounded in research and based on student needs.

The district and its schools develop goals through a comprehensive planning process that includes the analysis of state-level achievement data. A team structure allows teachers to help set school goals, and professional development focuses on reaching these goals. All employees in the district are included in the district's professional development program. Staff members attend eight daylong professional development activities each year, in addition to other opportunities. The district also develops leadership capacity among its teachers by allowing exemplary teachers to play leadership roles with their peers instead of bringing in outside experts. Evaluation focuses on evidence that the newly learned strategies are being used and that student achievement is increasing.

Lewisville's investment in staff development has led to positive results for its students. Teachers are learning how to analyze individual results from the Texas Assessment of Academic Skills to match their instructional strategies to individual student needs. Between 1995 and 1997, scores on the reading, mathematics, and writing tests improved at all grade levels, and the achievement gaps between Hispanic, African-American, and white students narrowed.

Montview Elementary School, Aurora, Colorado

At Montview Elementary, teachers see themselves as lifelong learners with an individual and collective responsibility to improve student achievement. A strong, coherent professional development plan enables them to accomplish this goal.

Because Montview engages in site-based decision making, teachers are integral to all planning and decisions. The school's goal is to ensure success for all children by expanding teachers' understanding of how children learn. When Montview began its restructuring efforts five years ago, the school decided to focus on improving student literacy. Teachers participate in summer learning institutes and four school-based inservice days each year, but they also have regular opportunities for observation, coaching, reflection, and dialogue. Teachers polish their skills through weekly coaching sessions with a teacher leader. On a quarterly basis, each teacher discusses the progress of his or her students with a leadership team made up of an administrator, the teacher's peer "coach," and a team of specialists.

Montview's professional development efforts help the school meet the learning needs of a diverse and highly transient student population that includes a high concentration of low-income families. Between 1995 and 1997, student scores on the Iowa Test of Basic Skills increased in reading, language, and math. Performance gaps have been virtually eliminated between white, Hispanic, and African-American students. Teachers report growth in their abilities to assess student progress in reading and writing, and to diagnose, plan, and support students' learning needs more effectively.

Shallowford Falls Elementary School, Marietta, Georgia

Shallowford Falls is a good school that is determined to get even better. Teachers believe that success in their own classrooms depends on the success of all of the other classrooms. The entire faculty, in consultation with parents and the community, establishes school goals. The professional development program emphasizes improving the instructional program, with a focus on literacy throughout the curriculum. All staff members are included in professional development activities, and teachers have gradually taken ownership of and responsibility for school improvement efforts. Staff teams meet regularly to examine individual teacher needs and determine the best ways to address those needs.

Professional development activities include overnight staff retreats and small, focused study groups. Teachers try new practices in their classrooms and then examine the results with other teachers. The school has a very low teacher turnover rate in part because new staff members are hired through an interview process that involves teachers. Veteran teachers also help new staff members incorporate effective strategies into their practice.

Shallowford Falls' focus on professional development, along with its adoption of student achievement goals based on its staff's analysis of student data, has led to impressive results. On the Iowa Test of Basic Skills, the school's third and fifth graders have significantly increased their scores in reading, language, and mathematics over the past three years.

Carroll Independent School District, Southlake, Texas

Carroll ISD is a small but rapidly expanding suburban district with an annual growth rate for the past two years of roughly 15 percent. While Carroll ISD may not be as ethnically diverse as other districts, teachers are faced with a wide range of academic diversity. Therefore, professional development activities are designed to improve achievement for all students by focusing on problem solving, critical thinking, strategic learning, self-evaluation, and love of learning.

Carroll ISD's STAR model for professional development is based on continuous improvement at the individual, campus, and district levels. It is a cohesive plan that begins with preservice and includes veteran teachers, administrators, university faculty, parents, business, and community partners. Major goals include: (1) improving teacher preparation and induction; (2) providing support for novice teachers; (3) enhancing the mentoring and coaching process; (4) supporting administrators as instructional leaders; and (5) including parents and community members as partners in learning so that student achievement is improved.

All site-based teams are trained in data analysis, goal setting, and staff development planning. Each campus submits a yearly professional development plan indicating objectives, activities, estimated costs, the model of staff development used, measures of success, and other additional needs.

Over the past five years, test scores, including those for special-needs students, have continued to rise as a result of this focus on data analysis. There has been an increase in the number of students taking AP courses and in the scores on the AP exams. SAT and ACT scores also have continued to rise, as well as the scores on TASS—the state criterion-referenced test.

Edmonds School District No. 15, Lynnwood, Washington

The Edmonds School District is a diverse suburban district committed to data-based decision making in all areas including professional development.

Edmond's professional development is a districtwide change model that was originally created to restructure mathematics and was tested as part of a National Science Foundation grant. In the initial development of the model, "teacher leaders" were prepared and supported to work with their peers as facilitators of change. The model has since evolved to address all areas of teaching and learning and has been aligned with the district's performance-based, standards-based educational system.

All educators now have the opportunity to meet together to learn, discuss, and share new ideas and classroom experiences that go well beyond the typical one-shot training workshops. The plan addresses both districtwide and building goals while providing opportunities for individual professional growth. The plan provides opportunities to: (1) give and receive feedback; (2) engage in educational research and development; (3) synthesize new educational research; (4) recognize and stimulate exemplary professional performance; (5) pursue advanced degrees; (6) induct new employees; (7) develop new teaching skills; (8) make the best use of new technologies; (9) teach other colleagues; and (10) use mentoring to enhance training.

Evaluations show that "teacher leaders" made substantial changes in their beliefs and practices, including how they organized their classrooms, how they taught, and how they observed, assessed, and recorded students' performance. The support of "teacher leaders" has helped all teachers make visible changes in their classrooms, in their use of materials, and in their teaching.

In addition, student performance data supports the effectiveness of the plan. Math scores increased from 1995 to 1998 in every grade tested. Results in language, reading, and math have steadily improved over the past four years as well.

Norman Public Schools, Norman, Oklahoma

Professional development is not a program or an event, but a way of life for the staff at Norman Public Schools. Norman, Oklahoma, is a community of approximately 100,000 built on a commitment to education shown through its support of the public schools, a major university, and other institutions related to education and training. With this professional emphasis, community expectations for student achievement in Norman are high and involvement in the educational process is extensive. To meet these high expectations, in 1985 the Norman Schools raised the level of importance placed on professional development for all staff. As a result, the district created Decisions for Excellence, a framework for professional development targeted toward improved teaching and learning.

The Norman Public Schools supports research-based professional development, so Decisions for Excellence is consistently updated using current research and best practices. Decisions for Excellence currently has four major components: “Processes” for effecting change, “Procedures” for participatory decision making regarding teaching and learning, and the “Program” for improving instruction, all targeted toward the “Product” of student learning. Each component is supported with district resources and committed staffs to strengthen district direction, address school site improvement goals, and develop individual teachers and administrators as outstanding leaders dedicated to improving student achievement. The structure encourages decision making at the level of need and provides flexibility as information and best practices become available.

Standardized test scores demonstrate how subject- and method-specific professional development has succeeded. The percentages of fifth-grade students passing the state performance-based writing, math, and science assessments significantly increased between 1995 and 1998. Similar gains were seen at grades 8 and 11. ACT test scores also demonstrate academic gains as the average composite score increased from 21.7 percent in 1992-93 to 22.8 percent in 1997-98. Evidence of success also is revealed in the decreased numbers of suspensions and absences.

Olathe District Schools, Olathe, Kansas

Continuous inquiry and improvement are embedded into the culture of the Olathe Unified School District, a large suburban school district outside of Kansas City that serves 19,613 students. Olathe has received numerous accolades, including earning, for three consecutive years, a Gold Medal ranking from *Expansion Management* magazine for being one of the best public school districts in the nation. The U.S. Department of Education also has identified 12 schools in the district as Blue Ribbon Schools. Olathe believes that their professional development program, in place since the early 90s, is the primary reason for their success.

The district’s professional development process uses an informed, collaborative decision-making approach that respects and nurtures the intellectual and leadership capacity of their teachers. The organization as a whole, and each school individually, must evaluate current status and baseline data, establish goals, and develop school improvement and building staff development plans to achieve desired outcomes. These five-year action plans include anticipated outcomes, research-based strategies, necessary resources, documentation of improvement, a monitoring timeline, and identification of professional growth opportunities.

Olathe’s focus on professional development has led to improvement in reading, math, and writing, and a narrowing in the gap between students of differing socioeconomic status, opposite their state

trends. Year-to-year academic data for the Iowa Test of Basic Skills, the Kansas math assessment, and the ACT show an overall increase in math at all levels—elementary, junior high, and high school. This student data ultimately guides Olathe’s professional development decisions. Their comprehensive and constantly improving program has had a powerful impact on their ability to achieve their vision: “Students prepared for THEIR future.”

Sprayberry High School, Marietta, Georgia

Sprayberry is a suburban high school outside of Atlanta that opened in 1952 to serve a principally rural community; however, the school population is now drawn from more suburban neighborhoods. The past six years have seen a sizeable influx of ethnically diverse families, many of whom speak English as a second language.

Over the past seven years, Sprayberry has been transformed from an average school to a school of excellence. The basic vehicle for change has been the adoption of site-based management that made teachers and the administration equal partners in school improvement. Sprayberry’s teachers are now empowered to assume leadership roles in designing their own professional development. Sprayberry set goals and creates a staff plan by:

- Disaggregating data to identify areas of need.
- Investigating current educational studies to select research-based strategies for improving instruction.
- Designing staff development programs to train teachers in best practices for improving student performance.
- Conducting ongoing reviews of progress.

Consistent improvement in the SAT and Georgia High School Exit Exam scores reflect the success of Sprayberry’s staff development program. In seven years, the SAT composite score has grown from 1004 to 1025, well above the national average. The Exit Exam has seen consistent gains in four out of five areas during a time of changing demographics. The combination of focus on teaching to improve critical thinking skills and the infusion of technology into both instruction and student-centered activities has led to across-the-board gains for all achievement levels and ethnic groups.

Spring Woods Senior High School, Houston, Texas

Spring Woods is a large urban high school in Houston, Texas. In the past few years the student population has greatly diversified and changed the instructional and professional development needs of the school.

Spring Woods staff reviewed their campus data and surveyed students and parents to determine how to meet the unique instructional and motivational needs of their culturally diverse student population. They established a “schoolwide leadership cadre” comprising parents, administrators, and teachers from all disciplines and grade levels to study whole-school change. The resulting professional development plan established these goals: more inclusive, relevant, and challenging instructional practices; collaborative, job-embedded learning and enhanced communication among adults; and parent involvement that encourages diverse representation and participation in meaningful decisions and activities.

The cadre has helped create a professional development initiative based on a motivational framework for culturally responsive teaching and learning. While the framework includes new teaching

strategies, it also serves as a template for recognizing existing strengths in an educator's instructional practice and providing clues for developing those strengths. Descriptive data from classroom observations, lesson plans, interviews, and faculty feedback are used to determine the impact of professional development on teacher practice.

Student academic achievement has improved for all ethnic and socioeconomic groups. Math scores have increased from 22.2 percent to a proficiency level of 77.3 percent. In addition, instructional improvements in English and social studies contributed to an increase in reading scores of 23.1 percent with 86 percent of students achieving passing scores. Writing scores have also improved 10.9 percent to reach 85.2 percent of students passing. Climate surveys, increased student attendance, and decreased dropout rates and discipline referral data also show improved student behavior and attitudes.

Wherry Elementary School, Albuquerque, New Mexico

Wherry is a K-5 public school in Albuquerque, New Mexico, situated on Kirtland Air Force Base, but drawing two-thirds of its 645 students from outside of the base. The student population is diverse, with 15 percent classified as limited English proficient. In addition, 15 percent also are recipients of special education services.

The professional development program at Wherry is predicated on their principal's belief that teacher expertise is the single most important factor affecting student achievement. To initiate their program, Wherry teachers examined their students' low achievement on standardized measures in literacy and decided to focus their professional improvement on research pertaining to literacy development, assessments that guide instruction, and proven teaching strategies. They made time for professional development activities by voluntarily lengthening the school day by ten minutes, freeing full days throughout the year. Study groups, monthly mini-inservices, and individual consultations provide additional support. Teachers continually review student data and conduct needs assessments to determine next learning steps.

Teachers speak openly of how dramatically their instructional practices have changed since they began their efforts in 1994. In an anonymous survey to determine the extent of literacy instructional strategy usage, teachers reported significant use of new strategies. Teachers are more willing to be observed by colleagues and willingly give up prep time in order to fund professional development.

Between 1994 and 1998, standardized test scores in literacy rose from 33 to 57 percent, writing assessment scores rose from 2.02 to 2.96 (on a 1-6 scale), and teachers report (and the principal observes) dramatic changes in the way instruction is delivered.

APPENDIX D— WHAT THE RESEARCH SAYS ABOUT PROFESSIONAL DEVELOPMENT THAT WORKS

By Lucy Steiner

Recent efforts to improve education through reforms such as school-based management, the introduction of standards, and schoolwide restructuring have focused renewed attention on professional development. The traditional inservice program in which teachers are released a few times a year for a half-day to attend sessions that focus on topics ranging from classroom management to using technology effectively is no longer considered adequate. This shift has led to questions about how schools and districts can develop comprehensive, effective professional development programs that clearly lead to improved student learning and performance.

Since 1997, The U.S. Department of Education has sponsored the National Awards Program for Model Professional Development to encourage and reward schools and districts that have successfully implemented high-impact professional development. The award criteria include demonstration not only of one-time improved student performance, but also of underlying organizational and professional development elements that are critical for sustained teacher and student performance. Criteria are organized around the design, implementation, evaluation/improvement, and sharing of professional development. This literature review focuses on the design, implementation, and evaluation/improvement steps.

The literature on professional development offers compelling support for the criteria used by the National Awards Program. This strong support indicates that reworking existing professional development programs and funding new efforts to meet these criteria should lead to positive student outcomes. The review is organized in the order of steps that schools and districts would take to organize and implement successful professional development.

Step One: Designing Professional Development

Include Participants and Organizers in the Professional Development Design Process

Inclusion of the people most directly affected by professional development enhances the content and ensures the acceptance of new approaches. Too often, school leaders undermine the legitimacy and effectiveness of professional development by failing to include participants in planning and delivery (Corcoran, 1995).

Viewing professional development as a process, rather than as a project or an event, requires a major shift in planning. According to Little (1997), staff development in the most successful schools is no longer the domain of a district-level curriculum supervisor. Instead, it is organized to give teachers the authority and resources to take charge of their own learning. Three years of field work in diverse secondary schools led McLaughlin (1994) to conclude that meaningful professional development does not take place during workshops and inservice day presentations, but in the context of professional communities that have been locally developed to be responsive to teachers' needs. A study of the effects of three different governance options in professional development conducted by Joyce et al. (1989) concludes that programs jointly governed (by individual staff, schools, and the district) were perceived as valuable by educators, because decisions had been made democratically.

This is not to say that leaving professional development entirely in the hands of local schools will necessarily lead to improvement. Limited time, funds, and expertise will always leave gaps that districts, states, and other large entities can fill. As Guskey and Peterson (1996) point out in their review of the effects of school-based decision making, teachers work under demanding conditions that often make it impossible for them to keep abreast of the latest research on ways to improve student learning. Thus, the best professional development will involve all those who have something important to bring to the table, and the participatory process will begin in the design stage.

Make a Clear Plan That Includes How Professional Development Supports the School/District's Long-Term Plan

Outstanding professional development is well planned. Planning helps ensure that professional development leads directly to achievement of state, district, school, and professional development outcome goals. Planning also ensures that professional development takes advantage of the best information (via needs assessments, ongoing evaluation, and current research) and resources (time and money).

Sparks and Richardson (n.d.) contend that “successful school reform results when individual and organizational goals are aligned and coherent” (p.16). Good professional development activities are designed to ensure that individual teacher performance supports already established goals for student learning. After studying numerous schools in the midst of restructuring, Little (1997) concluded that establishing manageable goals and priorities in the face of the enormous number of external demands on schools is a formidable task, but a necessary one if real change is to be accomplished. She asserts that highly effective schools are those that are able to weather the conflicting policy mandates and practices to which they are subjected and maintain a clear path with well-established goals.

In order for professional development to be perceived as important by teachers, Little advises that these goals must respond to genuine schoolwide needs. For example, adapting the curriculum to address the increasing numbers of non-English-speaking immigrants and mainstreamed special education students are visibly important professional development focus points for staff. More specifically, a case study conducted by Venezky and Winfield (1979) that is often cited in the school effectiveness literature found that schoolwide staff development closely tied to the school's instructional goals in reading led to change in educators' attitudes and behaviors. Thus, linking professional development to the educational goals of the school or district is essential for achieving significant change.

Make a Clear Plan That Includes a Professional Development Needs Assessment Process

State, district, and school goals establish the ultimate success measures for professional development, but the content of professional development must focus on

the gap between those goals and reality. A sound professional development program will include an assessment of the gaps in student learning and in teacher competence. An assessment of student learning gaps (actual performance versus goals) reveals the content and process areas in which teachers must excel in a particular school. An assessment of teacher competence tells us how well equipped teachers are in those content and process areas.

The methods of assessing students' and teachers' needs are varied. One way to determine teachers' needs is through self-assessment. Extensive case studies in Washington state convinced Duke et. al (as cited in Collins, 1998) that teachers feel a greater sense of commitment to change and more interest in participation when attention is paid to these assessments. However, in their studies comparing teachers' self-perceived instructional needs and needs assessments obtained through other means, Jones and Hayes (1980) found that many surveys of teachers' needs are really lists of problems, dilemmas, concerns, and wants. These lists, according to Guskey (1999), are typically “symptoms of needs” that should be diagnosed more thoroughly to identify underlying causes.

In his guide to professional development, Collins (1998) suggests students' needs can be readily identified by examining grades, test scores, discipline referrals, and work samples. As Guskey (1999) points out, however, these needs must be more deeply analyzed to make sure that schoolwide (not just individual) needs are accurately identified. This analysis allows for planning of common events, such as workshops, and for team effort by staff to close common student-learning and teacher-skill gaps.

Make a Clear Plan That Includes Professional Development Goals

Improving all students' learning. There is general agreement in the literature that the central goal of every professional development effort should be to improve all students' learning (Guskey, 1999; Joyce & Showers, 1988). Once this overarching goal has been established, the materials, content, processes, and evaluations of professional development efforts can be measured according to whether they support this goal. Components that fail to improve student learning can be dropped or redesigned (Guskey, 1999).

One challenge can be getting teachers to focus on all students rather than being content to have a select group of successful learners. Lezotte and Jacobe (as cited by the National Staff Development Council, 1995) studied disaggregated student outcome data in numerous schools in order to find schools that were successful with all students. They concluded that schools should collect student data on the basis of socioeconomic level, race, and gender during the planning stage, as well as later. This method, they assert, would help staff focus up front on the need to improve student learning across the board.

Improving teacher effectiveness. According to Dennis Sparks (1994), executive director of the National Staff Development Council, increasing teacher effectiveness is necessary to improve student learning. However, the definition of “effective” continues to evolve and to vary from place to place. For example, many teachers are being asked to shift from a behaviorist teaching approach, in which students are passive recipients of knowledge, to a constructivist model in which teachers actively engage students in the construction of knowledge (Corcoran, 1995).

Demands on teachers also depend upon changing state and district policies towards schools. A report by the Southern Regional Education Board (1998) asserts that effective professional development is needed to increase teachers’ understanding of challenging content standards, the higher expectations states have for all students, and new methods of assessment, instruction, and accountability.

Setting high standards for teachers. Raising expectations is a well-demonstrated method for improving staff performance results across industries (Weiss & Hartle, 1997) and education is no exception. Reform initiatives have been introduced in almost every state to require that teachers improve their expertise in teaching to high standards. Corcoran (1995) codirected a study of state policies and alternative approaches to professional development. He maintains that the skills needed for teaching to high standards are complex and many. Teachers must: (a) improve their knowledge of subject matter; (b) develop new assessments to determine students’ understanding of content; and (c) enable their students to apply their knowledge to real-world problems. Darling-Hammond (as quoted by Lewis, 1997a), executive director of the National Commission on Teaching and America’s Future,

agrees. She asserts that improved understanding of content areas is essential, and adds that high standards also require teachers to create curriculum that addresses students’ styles and experiences.

Promoting continuous staff learning and enhancing staff intellectual and leadership capacity. These two goals are closely tied, as they both require a strong commitment to developing teachers to their full potential over the long term.

The concept of “continuous learning,” popularized by Senge (1990), is one that has been adopted in numerous organizational settings. It applies well to education professionals. Teachers participating in The Teachers Network’s National Teacher Policy Institute [NTPI] (1997) concluded after a year of study and collaboration that effective professional development programs promote “an environment that values and nurtures learning and achievement for both teachers and students.” They further suggest that making professional development an integral, or embedded, part of the normal working school day gives teachers the time for inquiry, reflection, and mentoring that is necessary for long-term change in practice. Fullan and Miles (1992) further argue that if a practice is to be implemented well, it should become a natural part of the teacher’s repertoire of professional skills. This, of course, requires practice and repeated refinement, which are possible only if teachers have motive and opportunity to make continuous improvements.

The methods for promoting staff learning, intellectual development, and leadership skills are varied. McLaughlin and Talbert (1993) found in a five-year case study of nearly 900 educators that teachers who belonged to strong professional communities were better able to adapt to the challenges of teaching today’s students. Instead of enforcing traditional practices or lowering expectations, these teachers transformed their practice to work interactively with students. As part of a professional community, they had access to curricula frameworks, guidelines for practice, and new teaching materials and strategies. They also had support for the risk taking and struggle entailed in transforming practice.

One way to give teachers access to new materials and methods is described by Murphy (1999). A staff development specialist, she consults with schools to develop whole-faculty study groups. These groups of no more than six staff address school needs that are determined by data collection. They investigate possi-

ble responses and make recommendations to the school. Other suggestions for increasing staff intellectual and leadership capacity include increasing teachers' access to university libraries and to technology facilities and courses, without requiring that they enter into degree programs (NTPI, 1997).

Make a Clear Plan That Includes Professional Development Content, Process, and Activities

Planning for professional development includes determining the content of activities, how content will be presented, and how these components support the professional development goals that have been established. Studies of teacher perceptions of success (McLaughlin & Marsh, 1978; Lortie, 1975) support the conclusion that teachers define success in terms of their ability to improve student learning. Therefore, professional development activities that offer teachers practical ideas that can be used to improve student learning outcomes are likely to be successful and well received by teachers (Guskey, 1986).

Once the content has been determined, several models exist for structuring professional development activities. Sparks and Loucks-Horsley (1989) have examined many professional development strategies and organized them into five models, which they rank according to the outcomes they most effectively produce. For example, schools that want staff to master a specific skill are advised that observation is an effective model for increasing mastery. Determining during the planning stage what kind of professional development activities best meet staff members' specific needs is likely to result in effective use of professional development time.

Make a Clear Plan That Includes Research That Supports the Chosen Content/Process for Professional Development

During the planning stage, schools and districts must demonstrate that the content and delivery processes of professional development are supported by adult-learning research. (While student-learning research will greatly affect the content of teacher development, adult-learning research should guide the process of teacher development.)

For example, one theory in the adult education literature is andragogy. Malcolm Knowles (1984) is credited with developing this theory, which includes several

assumptions about adult learners: (a) they are self-directed; (b) their experiential base is a rich resource; and (c) their readiness to learn is linked to what they need to know to fulfill their roles as adults. Having offered this description of adult learners, he suggests that instructors should view adult learners as mutual partners in the learning process.

Schools must be vigilant about ensuring that practical implementation of professional development reflects this adult-learning knowledge. One researcher conducted a study of whether teachers actually teach adults using methods different from those used to teach children. Gorham (1985) found that, although teachers reported teaching differences that were in line with the approaches suggested by Knowles, there was little evidence in classroom observations that they were actually using these methods. The majority of teachers continued to use directive behavior with adults. The implications for those choosing professional development trainers is clear: Schools that value teacher development need to select trainers for their ability to provide this type of student-centered instruction. Our understanding of what works in adult education will move forward over time, and schools need to stay abreast of changes to ensure that professional development reflects the best practices currently available.

Make a Clear Plan That Includes Resources Available to Support Professional Development

Two of the most important resources to consider in planning professional development activities are time and money. Little's (1982) analysis of successful schools identifies the time teachers spend on critical activities as a distinguishing characteristic of these schools. Those critical activities include learning new skills, working with students, planning and preparing, and working collaboratively.

Finding this time is challenging and involves making difficult choices. Reflecting on his experiences as an educator, district administrator, and researcher, Collins (1998) notes some of the ways districts have "found" additional time, including the following: extending the school day or the school year, rescheduling teachers' time, and reassigning staff to provide release time. Each choice has its positives and negatives, but what is clear is that making these decisions during the design phase is essential if professional development is going to have a lasting impact.

According to Collins (1998), money to support professional development may include funds for substitutes or materials, stipends for teachers who work additional hours, and consultant fees. Sources for that money vary from district to district and may include school-based funds, district-funded projects and grants, school improvement funds, and external agency grants and programs. Again, the choices are many, but the key is to identify long-term funding sources during the design phase so professional development efforts are not sidetracked by a lack of funding.

Make a Clear Plan That Includes Professional Development Evaluation Steps

All too often evaluation is merely an expensive and time-consuming process that occurs at the end of a professional development activity and does not necessarily lead to changes. In contrast, effective evaluation is an opportunity to increase the direct impact on teacher effectiveness of professional development time and funds. Effective evaluation must be built into the process from the beginning. It is a primary source of input about the future direction of professional development.

Guskey and Sparks (1991) reviewed the literature supporting the importance of program content, program quality, and context. They built a model that describes how these three elements affect the professional development activity's ability to produce changes in student outcomes. Given the complexity of this process, they recommend that evaluation of professional development design should begin during planning and continue throughout the implementation and follow-up phases (Guskey, 1998; Guskey & Sparks, 1991). Guskey (1999) further advises that the goals of all professional development activities be linked from the beginning to a description of how success will be measured and documented. This link is critical for ensuring that evaluation actively contributes to the ultimate goals of the school and district, rather than merely adding an administrative task.

Share the Plan With the School Community

The school community includes students, teachers, other staff, parents, and any others who are concerned with student learning. Both for the substantive input they can offer and for the support they can lend to

teachers, each member of the school community needs to know the basic elements of professional development.

After reviewing research studies on the conditions that are necessary for lasting educational improvement, Guskey and Sparks (1991) conclude that although teachers and administrators are the prime targets of professional development efforts, any school employee who has an effect on student learning should also be included. Once a professional development design has been developed, it should be shared with the school community and all participants should be given a chance to comment on the design. Once plans are finalized, professional development planners who share the basic plan with the rest of the school community will likely build support for their efforts.

Step Two: Implementing Professional Development

Stay Abreast of and Incorporate Best Practices into Teaching, Learning, and Leadership

Once a professional development effort has been launched, organizers and participants should ensure that activities continue to reflect best practices. The National Staff Development Council (1995) recommends that the groups and individuals identified in the original design as responsible for ongoing research and inquiry must establish standards to guide their search for potential programs, and they must have a means for reporting findings to professional development organizers. Their work will not be easy. As Guskey (1999) and Slavin and Fashola (1998) point out, finding innovations and approaches that are thoroughly researched and proven in practice to improve student learning can be quite challenging.

Whole-faculty study teams have had documented success collecting ongoing information on best practices. In her work as a staff development specialist for ATLAS Communities (one of the New American Schools designs), Murphy (1999) has found that the study group process provides teachers with a straightforward format for investigating new practices. This method, when it is targeted appropriately, improves what teachers and students do in classrooms.

Make Sure School/District Policies and Practices Support Actual Professional Development Implementation for Staff in Schools

School and district policies and practices have a profound effect on the success or failure of professional development efforts. In his study of four school change projects, Pink (as cited in Fullan, 1990) determined that several harmful district actions acted as barriers to change. They included: (a) a lack of sustained central office support and follow-through; (b) district tendencies toward faddism and quick-fix solutions; and (c) lack of technical assistance and other forms of intensive staff development.

Little (1997) also cites teacher isolation—from information, competing ideas, and productive criticism—as a major threat to professional learning. Her finding is supported by the work of John Goodlad. In his study of teaching conditions in hundreds of schools, Goodlad (1984) describes how school culture and class schedules often conspire to make discussion, classroom visits, and joint planning difficult. Yet, according to an influential study of schools in the midst of desegregation conducted by Little (1982), having teachers work together is critical to improving student learning. Joyce and Showers (1988) support this point of view. Their investigation into the impact of coaching on long-term implementation provided compelling evidence that coaching and observation help teachers put new ideas into practice.

Providing adequate support and opportunity for collaboration is an ongoing challenge for professional development organizers. This challenge makes active identification and removal of barriers to professional development critical for schools and districts.

Ensure That Resources Remain Available to Organize and Implement Professional Development

Effective implementation of the professional development plan is essential for translating development efforts into classroom results. Good implementation requires ongoing commitment of time and financial resources. Huberman and Miles (1984) confirmed the importance of ongoing assistance in their detailed examination of 12 case studies of innovation. “Large-scale, change-bearing innovations lived or died by the amount and quality of assistance that their users received once the change process was underway...” (p. 273).

More recently, the experience of the New American Schools has further strengthened the argument that implementation support is critically important to effect school change in general. According to researchers at RAND (Bodilly, Keltner, Purnell, Reichardt, & Schuyler, 1998), a key finding of the demonstration phase of the project was that schools need a significant amount of ongoing professional development and materials geared to the design to successfully change teacher practice. The researchers also found that having consistent leaders send clear signals about the high priority to be placed on change efforts was critical, as were nonverbal messages conveyed through allocation of time and money. In schools that experienced a change in leadership and shifting budget priorities, reform efforts were slowed. Pink’s (as cited in Fullan, 1990) study of barriers to innovation cites inadequate funding as a major barrier to successful long-term implementation. According to Cohen and Hill’s (as cited in Guskey, 1999) study of mathematics reform in California, one of the most important supports teachers can receive is time to reflect and practice the new skill or idea.

Making more time for teachers to focus on their own development often costs money, and maintaining the financial support needed to do this can be challenging. Yet it is one critical element of professional development that leads to long-term results.

Make Professional Development Part of Everyday Life at School

As professional development experts Joyce, Wolf, and Calhoun state in their 1993 book, *The Self-Renewing School*, effective professional development is embedded in the everyday life of teachers, providing opportunities for continuous growth. Joyce and Showers’ (1988) research demonstrates that the traditional “inservice day” rarely influences long-term practice. They have found that when teachers are given no support after an initial training workshop, 90 percent of the investment in instructional improvement is lost. They further suggest that it may take up to 20 follow-up and coaching sessions for teachers to successfully implement a new practice. In another study, Armor et al. (as cited in Purkey & Smith, 1983) studied 20 Los Angeles schools participating in a special reading program. They found that schools successful in raising reading scores provided ongoing inservice training of teachers, with staff input and informal opportunities for teachers to compare progress and concerns.

School leaders can institutionalize professional development by altering the schedule to allow time for ongoing staff development in the form of team planning, joint discussion of student work, data collection, and peer coaching (Darling-Hammond, 1999). Also important is providing incentives for teachers to pursue new strategies over time. One method for doing this is to determine and report the results of professional growth activities on an ongoing basis so that teachers have the information and motivation they need to continue effective practices (Guskey, 1999). This combination of making time available and encouraging ongoing change makes development more central to teachers' daily work.

Step Three: Evaluating and Improving Professional Development

Use Professional Development Design Goals to Determine Evaluation Measures and Standards for Success

According to Mullins (1994), the evaluation design should be based on the intended outcomes of the overall school improvement effort. If the school improvement plan has clear objectives expressed in terms of student outcomes, then the evaluation of professional development can be tied to those outcomes.

Using the design goals as the ultimate measures of success will answer the question *Is our professional development working?* However, schools may also want to answer these questions: *Why is or isn't our program working?* and *How can we change it to be better?*

To answer these questions, it is not enough simply to measure student achievement both before and after the fact. Schools also need to measure underlying factors that affect the success of professional development efforts so that changes needed in the development process can be identified. Guskey and Sparks' (1991) comprehensive article on evaluating professional development recommends that a variety of factors be assessed as part of a thorough evaluation. Those factors include the content of the professional development program, the quality of the activities that are used to introduce the content, and the effect school culture has on implementation.

Clarify Who Is Accountable for Collecting, Analyzing, and Reporting Data and for Facilitating "Professional Development Next Steps" Decisions

At the beginning of the planning process, an evaluation team should be appointed and given responsibility for evaluating each program (Mullins, 1994). Once this team is established, it should make decisions about collecting, analyzing, and reporting data. Guskey and Sparks (1991) suggest that evaluators collect multiple types of data, both quantitative and qualitative. The results of all evaluations should be shared at regular meetings and presented in a format that can be understood by everyone (Guskey, 1999).

The evaluation team may or may not be the right one for facilitating decisions about next steps. This role may best be assumed by the professional development organizers, the principal, or teachers. In any case, schools and districts should clearly assign accountability for ensuring that evaluation data is used to improve professional development.

Use Evaluation Findings to Make Improvements in Professional Development

Traditionally, most professional development evaluations take place immediately following an activity or program and are summative in nature. The research suggests, however, that if the activity or program lasts several weeks or more, another type of evaluation should be introduced to help organizers improve professional development as it is taking place: formative evaluation (Cook & Fine, 1997).

Formative evaluation is conducted by the evaluation team and requires members to gather information continuously through observation and written feedback. Collins (1998) describes the advantages of using formative evaluation by noting that it can be used to improve the quality of a professional development program as it is being implemented by allowing schools to make adjustments in structure, pace, content, and presentation.

Ensure That Evaluation Criteria Include at Least: (a) Improvement in Teaching, (b) Improvement in Student Learning, and (c) Narrowing of Student Achievement Gaps

Improvement in teaching. Student learning is unlikely to improve without improvements in teaching, namely teachers' knowledge, skills, practices, and, eventually, their attitudes and beliefs (Guskey, 1986). Therefore, determining the overall effectiveness of a professional development program must involve an assessment of teacher change on all of these levels. Guskey and Sparks (1991) recommend using pre- and posttests, exit interviews, and questionnaires to evaluate changes in participants' knowledge base. Improvement in skills and practices can be assessed through observation, interviews, and self-assessment checklists. And finally, changes in attitudes and beliefs can be determined through interviews, questionnaires, and an analysis of records such as minutes of meetings.

Improvement in student learning. In their synthesis of current research, Hawley and Valli (as cited in Lewis, 1997b) identified several characteristics of effective professional development, including the fact that good designs use multiple measures to determine how professional development affects student outcomes. Guskey and Sparks (1991) agree that it is not enough to measure students' learning gains by their scores on achievement tests. They recommend that evaluators use teacher-developed tests, student portfo-

lios, and course grades as well. To measure behavioral outcomes, they suggest that evaluators use observation, interviews, school records such as attendance rates, and questionnaires.

Narrowing of student achievement gaps. According to Little (1997), an important test of professional development is to assess its ability to respond to schoolwide problems, such as the disparities in performance between children of more affluent families and children of lower-income families. Corcoran (1995) voices a similar concern when he suggests that standards be developed for schools and professional development providers to ensure that funds are targeted and well used, particularly in schools that serve high-risk students. He points out that teachers of at-risk students are especially in need of quality professional development because they work under the most difficult conditions, have less time for collegial interaction, and have fewer opportunities to improve their practice.

Conclusion

In summary, the literature offers strong support that the U.S. Department of Education's National Awards Program's criteria are ones that should lead to education success. While the implementation specifics will vary across schools and districts, these criteria are important guideposts for educators and professional development experts.

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