DOCUMENT RESUME

ED 470 231 SP 041 159

AUTHOR	Caldwell, Sarah DeJarnette, Ed.
TITLE	Professional Development in Learning-Centered Schools.
INSTITUTION	National Staff Development Council, Oxford, OH.
PUB DATE	1997-00-00
NOTE	186p.
AVAILABLE FROM	National Staff Development Council, P.O. Box 240, Oxford, OH 45056. Tel: 513-523-6029.
PUB TYPE	Collected Works - General (020)
EDRS PRICE	EDRS Price MF01/PC08 Plus Postage.
DESCRIPTORS	Administrator Role; Central Office Administrators; Databases; Decision Making; Educational Environment; Elementary Secondary Education; *Faculty Development; *Inservice Teacher Education; Knowledge Base for Teaching; Principals; Teacher Improvement; Teacher Knowledge; Teacher Leadership
IDENTIFIERS	Subject Content Knowledge

ABSTRACT

This collection of papers reports on the emerging thinking in staff development and organizational learning in schools and districts, framing issues which have critical implications for staff development. There are 10 papers in four sections. Section 1, "Context," features: (1) "School Reform Requires a New Form of Staff Development" (Dennis Sparks). Section 2, "New Roles in the School as a Learning Organization," includes: (2) "Site-Based Development" (Steven R. Thompson); (3) "Broadening the Concept of Teacher Leadership" (Michael G. Fullan); (4) "The Principal's Role and Staff Development" (Jim LaPlant); and (5) "New Roles for Central Office Administration in School-Based Change and Staff Development" (Fred H. Wood). Section 3, "Process and Content of Learning," offers: (6) "Shifting Rules, Shifting Roles: Transforming the Work Environment to Support Learning" (Arthur L. Costa, Lauren Lipton, and Bruce Wellman); (7) "Teacher Content Knowledge: Impact on Teaching and Learning" (Randy Schenkat and Kathie Tyser); and (8) "Putting It All Together: Integrating Educational Innovations" (Tom Guskey). Section 4, "Building Capacity Within the System," includes: (9) "Data-Based Decision Making" (Jon C. Marshall) and (10) "Leadership for Professional Development: Essential Arenas of Work and Learning" (Margaret Arbuckle). (Chapters contain references.) (SM)

Professional Development in Learning-Centered Schools

Edited by Sarah DeJarnette Caldwell

Professional Development in Learning-Centered Schools

Edited by Sarah DeJarnette Caldwell

NSDC MISSION

To ensure success for all students by serving as the international network for those who improve schools and by advancing individual and organization development.

NSDC BELIEFS

We believe that:

- change creates opportunities for growth
- the primary purpose of staff development is school improvement as measured by success of every student
- staff development is fundamental to school improvement
- all educators share the responsibility for both individual and organizational growth
- trust is vital for individual and organization development
- individuals and organizations are responsible for defining and achieving standards of excellence
- effective staff development is based on theory, research, and proven practice
- diversity strengthens
- expectations influence accomplishment
- example is a powerful teacher
- collaboration within the school, community, students, families, community members, and staff is essential for school improvement and accelerated student success
- effective staff development honors differences in learners by using various approaches to learning
- staff development is responsible for organization development and individual development
- staff development is critical for all those who affect student learning

Professional Development in Learning-Centered Schools

Edited by
Sarah DeJarnette Caldwell

1997

National Staff Development Council
P.O. Box 240
Oxford, Ohio 45056
(513) 523-6029

National Staff Development Council

Printed by Mainline Printing, Topeka, Kansas

Table of Contents

Foreward

In 1989, the National Staff Development Council published *Staff Development: A Handbook of Effective Practices.* Providing a broad overview of "best practices" in staff development, it described the context for effective staff development and delineated support roles for policy makers and leaders. It also discussed the "nuts and bolts" of designing and evaluating staff development activities.

As "how to" material, the 1989 handbook continues to support the growing number of professionals who lead and direct staff development programs in schools and districts across the country. It is also used to inform district and school decision makers regarding best practices.

When re-examining the handbook for a possible update, we soon realized that we were dealing with important new directions in staff development that took us beyond mere revision. It was apparent that emerging learnings regarding staff development and instructional reform should form the basis for a new book. Consequently, we asked the authors to frame their discussions around leading-edge thinking which dealt with learning organizations, learning-centered schools, and collaborative development. This content adds to and extends the knowledge of effective practices. Specifically, we focused on:

- shifts in thinking about school improvement which bring about changes in how staff development is conceived and implemented (e.g., teacher professionalism, result-driven planning).
- shifts in roles and responsibilities in learning and school reform (e.g., teacher decision making, leadership support).
- new models which guide designs for professional learning (e.g., constructivism, an emphasis on content).
- tools and leadership for building the capacity for continuous improvement (e.g., data-based decision making, creating a learning culture).

This handbook reports on the emerging thinking in staff development and organizational learning in schools and districts. It frames issues which have critical implications for staff development. These ideas also can form the basis for discussion about new directions for staff development that will take us into the next century.

I would like to acknowledge the direction and guidance provided by Dennis Sparks, NSDC Executive Director, as we conceptualized the handbook and as we made critical content decisions along the way. I also wish to recognize the special work of Paul Burden, *Journal of Staff Development* editor, for his contribution to the final phases of technical editing and production, and of Marsha Jensen for the cover design and layout.

Sarah DeJarnette Caldwell
Editor

Chapter

1

School Reform Requires a New Form of Staff Development

Dennis Sparks

Whatever it was called over the past 20 years—inservice education, staff development, professional development, or human resource development—it most often meant that educators (usually teachers) sat relatively passively while an "expert" "exposed" them to new ideas or "trained" them in new practices. The success of this endeavor was typically judged by a "happiness quotient" that measured participants' satisfaction with the experience and their assessment regarding its usefulness in their work.

Recognizing the link between staff development and successful educational change, leading school reformers such as Ann Lieberman, Linda Darling-Hammond, and Milbrey McLaughlin have called for a new form of professional development (the terms staff development and professional development will be used interchangeably throughout this chapter). Lieberman (1995) argues for a "radical rethinking" of professional development if school reform is to be successful. "What everyone appears to want for students—a wide array of learning opportunities that engage students in experiencing, creating, and solving real problems, using their own experiences, and working with others—is for some reason denied to teachers when they are learners," Lieberman observes (p. 591).

Lieberman points out the similarities between the ways students learn and the ways teachers learn: "...people learn best through active involvement and through thinking about and becoming articulate about what they have learned. Processes, practices, and policies that are built on this view of learning are at the heart of a more expanded view of teacher development that encourages teachers to involve themselves as learners - in much the same way as they wish their students would" (p.592).

Constructing a continuum of practices that encourage teachers' growth, Lieberman describes the movement from "direct teaching" (the current dominant mode of training-focused professional development) to "learning in school" to "learning out

of school." "Because 'direct-teaching' currently dominates much of what the public and many districts consider staff development," Lieberman argues, "it is important that teachers, administrators, and policy makers become aware of new and broader conceptions of professional development" (p. 592).

Lieberman believes that "...teachers must have opportunities to discuss, think about, try out, and hone new practices" through taking new roles (e.g., teacher researcher), creating new structures (e.g., problem-solving groups), working on new tasks (e.g., creating standards), and by creating a culture of inquiry. "What characterizes these examples of professional learning," Lieberman writes, "is that their lifespan is not one or two days. Instead, they become part of the expectations for teachers' roles and form an integral part of the culture of a school" (p. 593).

Darling-Hammond and McLaughlin (1995) suggest that staff development that is linked to a reform agenda must support a learner-centered view of teaching and a career-long conception of teachers' learning. "The success of this agenda," they write, "ultimately turns on teachers' success in accomplishing the serious and difficult tasks of *learning* the skills and perspectives assumed by new visions of practice and *unlearning* the practices and beliefs about students and instruction that have dominated their professional lives to date. Yet few occasions and little support for such professional development exist in teachers' environments" (p. 597).

Recognizing the link between staff development and successful educational change, leading school reformers such as Ann Lieberman, Linda Darling-Hammond, and Milbrey McLaughlin have called for a new form of professional development.

Darling-Hammond and McLaughlin (1995) seek a form of professional development that prepares teachers ". . . to see complex subject matter from the perspective of diverse students" (p. 597), and point out that understanding cannot be developed just through traditional top-down teacher training strategies that are limited to teachers' acquisition of new knowledge and skills. "Professional development today," they write, "also means providing occasions for teachers to reflect critically on their practice and to fashion new knowledge and beliefs about content, pedagogy, and learners" (p. 597).

Fortunately, a new form of staff development is being fashioned by irresistible forces that are currently at work in education. History teaches

us the power of a transforming idea, an alteration in world view so profound that all that follows is changed forever. Such a paradigm shift is now rapidly transforming the discipline of staff development.

Three Powerful Ideas

Three powerful ideas are currently altering the shape of this nation's schools and the "staff development" that occurs within them.

- The first is the notion of ***results-driven education*** which judges success not by the courses students take or the grades they receive, but by what they actually know and can do as a result of their time in school. Results-driven education will require that teachers and administrators alter their attitudes (e.g., from grades should be based on the bell curve to the belief that virtually all students can acquire the school's valued outcomes provided they are given sufficient time and appropriate instruction) and acquire new instructional knowledge and skills.

Results-driven education for students will require results-driven staff development for educators. Staff development's success will be judged primarily not by how many teachers and administrators participate in staff development programs or how they perceive its value, but by whether it alters instructional behavior in a way that benefits students. The goal of staff development and other improvement efforts is becoming improved performance—improved performance on the part of students, staff, and the organization.

- The second transforming idea is that of ***systems thinking,*** which recognizes the complex, interdependent interrelationships among the various parts of the system. When the parts of a system come together they form something that is bigger and more complex than those individual parts. "Systems thinkers" are individuals who are able to see how these parts constantly influence one another in ways which can support or hinder improvement efforts. Because educational leaders typically have not thought systemically, reform has most often been approached in a piecemeal fashion.

An important aspect of systems thinking is that change within the system is continuous because changes in one part of the system—even relatively minor changes—can have significant effects on other parts of the system, either positively or.negatively. As a result, the system is always in a state of flux, which may or may not be evident at any given moment.

To further complicate the situation, the changes that occur today in one part of the system may not become obvious for months or even years, which may lead observers to miss the link between the two events. For instance, graduation requirements may be increased, teachers may be trained in some new

process, or decision-making decentralized, with little thought given to how these changes influence other parts of the system. As a result, "improvements" in one area may produce unintended negative consequences in another part of the system (e.g., increasing graduation requirements in science without appropriate changes in assessment, curriculum, and instructional methods may increase the dropout rate).

To address this issue, Peter Senge, author of *The Fifth Discipline* (1990), encourages organizational leaders to identify points of high leverage in the system—points that he refers to as "trim tabs." Change introduced into these areas can have a positive ripple effect throughout the organization (e.g., a change in assessment strategies may have a significant effect on curriculum and instruction).

• The third powerful idea is ***constructivism.*** Constructivists believe that learners build knowledge structures rather than merely receive them from teachers. In this view knowledge is not simply transmitted from teacher to student, but instead constructed in the mind of the learner. From a constructivist perspective it is critical that teachers model appropriate behavior, guide student activities, and provide various forms of examples rather than use common instructional practices that emphasize telling and directing.

Constructivist teaching will be best learned through constructivist staff development. Rather than receiving "knowledge" from "experts" in training sessions, teachers and administrators will collaborate with peers, researchers, and their own students to make sense of the teaching/learning process in their own contexts. Staff development from a constructivist perspective will include activities such as action research, conversations with peers about the beliefs and assumptions that guide their instruction, and reflective practices like journal keeping—activities which many educators may not even view as staff development.

> History teaches us the power of a transforming idea, an alteration in world view so profound that all that follows is changed forever. Such a paradigm shift is now rapidly transforming the discipline of staff development.

Results-driven education, systems thinking, and constructivism are producing profound changes in how staff development is conceived and implemented. Some of the most important of these changes are:

1. From individual development to individual development and organization development. Too often we have expected dramatic changes in schools based

> Staff development's success will be judged primarily not by how many teachers and administrators participate in staff development programs or how they perceive its value, but by whether it alters instructional behavior in a way that benefits students.

solely on staff development programs intended to help individual teachers and administrators do their jobs more effectively. An important lesson from the past few years, however, has been that improvements in individual performance alone are insufficient to produce the results we desire.

It is now clear that success for all students depends upon both the learning of individual school employees *and* improvements in the capacity of the organization to solve problems and renew itself. While the knowledge, skills, and attitudes of individuals must continually be addressed, quality improvement expert W. Edwards Deming estimates that 85% of the barriers to improvement reside in the organization's structure and processes, not in the performance of individuals. For instance, asking teachers to hold higher expectations for students within a school that tracks students pits teachers against the system in which they work. As systems thinking has taught us, unless individual learning and organizational changes are addressed simultaneously and support one another, the gains made in one area may be canceled by continuing problems in the other.

2. From fragmented, piecemeal improvement efforts to staff development driven by a clear, coherent strategic plan for the school district, each school, and for the departments that serve schools. Educational experts such as Seymour Sarason (1991) and Michael Fullan (1991) have criticized schools for their fragmented approach to change. School improvement too often has been based on fad rather than a clear, compelling vision of the school system's future. This, in turn, has led to one-shot staff development workshops with no thought given to follow-up nor how this technique fits in with those that were taught in previous years. At its worst, teachers are asked to implement poorly understood innovations with little support and assistance, and before they are able to approach mastery, the school has moved on to another area.

An orientation to outcomes and systems thinking has led to strategic planning at the district, school, and department levels. Clear, compelling mission statements and measurable objectives expressed in terms of student outcomes give guidance to the type of staff

development activities that would best serve district and school goals. In turn, district offices such as staff development and curriculum see themselves as service agencies for schools. This comprehensive approach to change makes certain that all aspects of the system (e.g., assessment, curriculum, instruction, parent involvement) are working in tandem toward a manageable set of outcomes that are valued throughout the system.

3. From district-focused to school-focused approaches to staff development. While districtwide awareness and skill building programs sometimes have their place, more attention today is being directed at helping schools meet their improvement goals. Schools sets their goals both to assist the school system in achieving its long-term objectives and to address challenges unique to their students' needs.

School improvement efforts in which the entire staff seeks incremental annual improvement related to a set of common objectives (e.g., helping all students become better problem solvers, increasing the number of students who participate in a voluntary community service program to 100%) over a three to five year span are viewed as the key to significant reform. As a result, more learning activities are designed and implemented by school faculties, with the district's staff development department providing technical assistance and functioning as a service center to support the work of the schools.

> Results-driven education, systems thinking, and constructivism are producing profound changes in how staff development is conceived and implemented.

4. From a focus on adult needs to a focus on student needs and learning outcomes. Rather than basing staff development solely upon the perceptions of educators regarding what they need (e.g., to learn about classroom management), staff development planning processes are more often beginning by determining the things students need to know and be able to do and working backward to the knowledge, skills, and attitudes required of educators if those student outcomes are to be realized. This shift does not negate the value of teachers' perceptions regarding their needs, but rather places those needs within a larger context.

5. From training that one attends away from the job as the primary delivery system for staff development to multiple forms of job-embedded learning. Critics have long argued that too much of what passes as staff development is "sit and

> Success for all students depends upon both the learning of individual school employees *and* improvements in the capacity of the organization to solve problems and renew itself.

get" in which educators are passive recipients of received wisdom. Likewise, a great deal of staff development could be thought of as "go and get" because "learning" has typically meant leaving the job to attend a workshop or other event.

While well designed training programs followed by coaching will continue to be the preferred method for the development of certain skills, school employees will also learn through such diverse means as action research, participating in study groups or small-group problem solving, observing peers, journal writing, and through involvement in improvement processes (e.g., participation in curriculum development, school improvement planning).

6. From an orientation toward the transmission of knowledge and skills to teachers by "experts" to the study by teachers of the teaching and learning processes. Teachers will spend an increasingly larger portion of their work day in various processes that assist them in continually improving their understanding of the teaching and learning process. Action research, study groups, and the joint planning of lessons, among other processes, will be regularly used by teachers to refine their instructional knowledge and skills.

7. From a focus on generic instructional skills to a combination of generic and content-specific skills. While staff development related to cooperative learning, mastery learning, and mastery teaching, among other topics, will continue to have their place, more staff development of various forms will focus on specific content areas such as mathematics, science, language arts, and social studies. Recent studies have revealed the importance of teachers possessing a deeper understanding of both their academic disciplines and of specific pedagogical approaches tailored to those areas.

8. From staff developers who function primarily as trainers to those who provide consultation, planning, and facilitation services. as well as training. Staff developers are more frequently called on today to facilitate meetings or to assist various work groups (e.g., a school faculty, the superintendent's cabinet, a school improvement team) solve problems or develop long-range plans. While staff developers will continue to provide training in instructional areas, results-driven education and systems thinking have placed teachers, administrators, and school employees in new roles (e.g., team leader,

strategic planning team member) for which training in areas such as conducting effective meetings is required for their successful performance.

9. From staff development provided by one or two departments to staff development as a critical function and major responsibility performed by all administrators and teacher leaders. Job-embedded staff development means that superintendents, assistant superintendents, curriculum supervisors, principals, and teacher leaders, among others, must see themselves as teachers of adults and view the development of others as one of their most important responsibilities. Individuals who perform these roles are increasingly being held accountable for their performance as planners and implementers of various forms of staff development.

As responsibility for staff development has been spread throughout the school system, the role of the staff development department has become even more important. Staff development departments are assisting teachers and administrators by offering training and ongoing support in acquiring the necessary knowledge and skills to assume their new responsibilities, by providing one-to-one coaching of these individuals in their new roles, and by facilitating meetings that are best led by individuals who are outside that particular group, among other responsibilities.

> While well designed training programs followed by coaching will continue to be the preferred method for the development of certain skills, school employees will also learn through such diverse means as action research, participating in study groups or small-group problem solving, observing peers, journal writing, and through involvement in improvement processes.

10. From teachers as the primary recipients of staff development to continuous improvement in performance for everyone who affects student learning. To meet the educational challenges of the 21st Century, everyone who affects student learning must continually upgrade his or her skills—school board trustees, superintendents and other central office administrators, principals, teachers, the various categories of support staff

Job-embedded staff development means that superintendents, assistant superintendents, curriculum supervisors, principals, and teacher leaders, among others, must see themselves as teachers of adults and view the development of others as one of their most important responsibilities.

(e.g., aides, secretaries, bus drivers, custodians), and parents and community members who serve on policy-making boards and planning committees.

11. From staff development evaluation that focuses on participation satisfaction to assessment processes that consider the effects of various learning processes on changes in on-the-job behaviors and in student outcomes. The ultimate criterion against which systemic change efforts must be judged is their effect on student learning. It is no longer sufficient to determine the value of staff development efforts by assessing participants' perceived satisfaction with those efforts. On the other hand, it will no longer be acceptable to hold staff development solely responsible for improvement in student outcomes. Systems theory makes it clear that student outcomes are the result of complex interactions of the various parts of the system (e.g., district and school leadership, curriculum, assessment, parental involvement), and that all these parts must all be critically examined to determine their influence on one another and on student learning.

12. From staff development as a "frill" that can be cut during difficult financial times to staff development as an essential and indispensable process without which schools cannot hope to prepare young people for citizenship and productive employment. Both the development of school employees and significant changes in the organizations in which they work are required if schools are to adequately prepare students for life in a world that is becoming increasingly more complex. Fortunately, results-driven education and systems thinking provide us with the intellectual understanding and the means to create the necessary reforms.

The shifts described above are significant and powerful. They are essential to the creation of learning communities in which everyone—students, teachers, principals, and support staff—are both learners and teachers. All of the things described above will serve to unleash the most powerful source of success for all students, young people who are in the daily presence of adults who are passionately committed to their own life-long learning

within organizations that are continually renewing themselves.

References

Brooks, J., & Brooks, M. (1993). *The case for constructivist classrooms.* Arlington, VA: Association for Supervision and Curriculum Development.

Calhoun, E. F. (1994). *How to use action research in the self-renewing school.* Arlington, VA: Association for Supervision and Curriculum Development.

Clincy, B. M. (1995). Goals 2000: The student as object. *Phi Delta Kappan, 76*(5), 383, 389-392.

Darling-Hammond, L., & McLaughlin, M. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan, 76*(8), 597-604.

Fritz, R. (1989). *The path of least resistance.* New York: Fawcett Columbine.

Fullan, M. (1991). *The new meaning of educational change.* New York: Teachers College Press.

Holzman, M. (1993). What is systemic change? *Educational Leadership, 51*(1), 18.

Lieberman, A. (1995). Practices that support teacher development. *Phi Delta Kappan, 76*(8), 591-596.

O'Neil, J. (1993). Turning the system on its head. *Educational Leadership, 51*(1), 8-13.

O'Neil, J. (1994). Aiming for new outcomes: The promise and the reality. *Educational Leadership, 51*(6), 6-10.

Sarason, S. (1991). *The predictable failure of educational reform.* San Francisco: Jossey-Bass.

Senge, P. (1990). *The fifth discipline: The art and discipline of the learning organization.* New York: Doubleday.

Sparks, D., & Loucks-Horsley, S. (1989). Five models of staff development for teachers. *Journal of Staff Development, 10*(4), 40-57.

About the Author

Dennis Sparks is executive director of the National Staff Development Council and executive editor of the *Journal of Staff Development*, 1124 West Liberty Street, Ann Arbor, MI 48103, (313) 998-0574, (e-mail: Sparksnsdc@aol.com).

Chapter

2 Site-Based Development

Steven R. Thompson

There is a consensus that has emerged from the debates over schools and schooling. It is that schools must get better. While there is little agreement about what they should look like or how they should operate or even what they should teach, all those interested in education agree that schools must improve if they are to meet the complex challenges of the future.

This chapter examines some of the beliefs that have shaped school improvement efforts in the past and suggests beliefs from current knowledge about organizational learning and change that offer more promise for successful improvement in the future. It presents a model based on these beliefs that has been tested and shown to be successful in achieving significant improvement in today's school systems. The chapter includes examples that help to illustrate how school improvement is both simple and very difficult to achieve.

Beliefs About Organizational Learning and Site-Based Growth

Social change in general and change in schooling in particular have a way of creeping up on us gradually. They are driven by our fundamental views of educational organizations and our beliefs about learning, about change, and about the challenges we face as a society. Barring calamities such as plagues or natural disasters that cause genuine social upheaval, these beliefs change slowly, shaped as they are by our world view or paradigm. World views are stable, resilient things and they do not respond to logic alone.

As a result, although there has been much talk of school change, especially in the last decade, action has trailed behind rhetoric. In the face of what many would describe as very persuasive new evidence about learning and development, most of our school practices have remained strikingly similar to the practices of the early part of the Twentieth Century. Staff development practice is no exception. Much of what we now do in the name of staff development in schools is built on old beliefs, and even discredited views (Wood & Thompson, 1993).

Scientific World Views

If we can judge how we see the world by how we act, then much of our current view of the world is described by the Newtonian perspective (Wheatley, 1992). It is the view that the universe is like a grand machine. From this perspective, cause and effect are governed by laws that, if we come to understand them, can be used to manipulate the system.

From a Newtonian perspective, school improvement is accomplished by adjusting the parts of the organization so the mechanism works more efficiently. The journey to improvement is a journey to the one right way or correct solution. Experts or professionals who understand the laws are given power to act on their specialized knowledge and held accountable for making the system work. People work in hierarchies that are easily portrayed in an organization chart. And the recognition of the mechanical nature of things is reflected in metaphors of people as cogs in the organizational machine.

> In the face of what many would describe as very persuasive new evidence about learning and development, most of our school practices have remained strikingly similar to the practices of the early part of the Twentieth Century.

Scientific models of supervision emerged from this view and efficiency experts and time-motion studies were typical early tools of organizational improvement. As time passed and the tools evolved, behaviorism emerged as a fresh approach to scientific management. Checklists, contingency management, and the tools of motivational management predominated. In the Newtonian universe, control is possible, desirable, and demonstrable—in theory at least.

In the scientific world, the Newtonian paradigm was replaced by Einstein's relativistic models. From Einsteinian points of view, matter itself is no longer a solid, fixed, and reliable thing. Time is a flexible quantity. What appears as real, depends on where the observer stands and two observers might have very different, yet equally "real" visions of reality. Cause and effect have a tenuous relationship that is modified by other apparently unrelated influences. Even the argument that there are "world views" or "paradigms" that shape our view of reality owes something to this notion of the universe as a relative place.

More recently, Einsteinian views of the universe have been succeeded by quantum models. In the quantum universe, reality is not only dependent on the perspective of the observer, but is changed by that perspective. Note that this does not mean that one's

Many of the beliefs that drive our current practice in schools and other organizations are still built on the foundation of Newtonian world views.

view is different, but that the very act of observing changes the nature of reality. The observer cannot watch reality from a distance as in the Newtonian perspective.

There is no place apart from the action for the "expert" to stand. In quantum theory, the basic building block of the universe is not a "block" at all. The stuff of reality is not a thing but relationships (Wheatley, 1992). In this world view, organizations are dynamic systems and improvement is accomplished by changing the interaction of system components, often with unpredictable results. Accountability, in the traditional sense of controlling outcomes, is usually elusive.

Beliefs about Staff Development and School Improvement

Peter Senge, in his book *The Fifth Discipline* (1990), describes the lag between the "invention" of an idea and the "innovations" that use the idea in practical, widespread settings. This delay between our ability to understand and accept an idea or a concept and our ability to use it in our lives is another way of thinking of the slowness of change. We need time to learn practical applications of new concepts. Our understanding of staff development and our practice of school improvement illustrate the point.

Many of the beliefs that drive our current practice in schools and other organizations are still built on the foundation of Newtonian world views (Costa & Garmston, 1994; Wheatley, 1992; Wood & Thompson, 1993). As staff development and school improvement strive for more successful and more effective practices in the future, it is important to focus on the application of beliefs that come from our current understanding of effective staff development, beliefs that must replace an aging, less effective foundation of ideas for professional growth and school improvement.

This "learning lag" or "learning curve" can help explain the persistence of old habits, but it must not become an excuse for resisting growth. Such excuses find voice in expressions such as, "we've tried that," "be realistic," "we have to be practical here," "I've heard that before," and "yeah, but try and explain that to. . ." For an organization to seek refuge from uncertainty in the familiar is to find comfort in stagnation. As Dennis the Menace has said, "the trouble with learnin' is that it's always about somethin' that you don't know." Schools must learn to embrace uncertainty as a necessary part of growing.

A Modern Set of Beliefs for Effective Staff Development

Many beliefs that are now supported in the professional literature remain widely unrealized in practice. As schools work to improve, these more contemporary beliefs can serve to guide practice and to help shape school improvement for a post-Newtonian, post-Einsteinian world.

1. The school is the unit of change. Schools are social systems that are shaped by the expectations the participants hold for one another and the ways they learn to behave over time. School districts improve when teachers, students and parents learn new expectations, new ways of behaving, and new habits of working together.

Parents expect teachers to do certain things such as give assignments, handout worksheets and calculate grades. Teachers and principals expect their colleagues to behave in certain ways. Students learned routines and behaviors that are acceptable from years of experience in classrooms. All such behavior is learned over time and, taken together, constitutes the organizations we call schools.

From such a perspective, it is helpful to think of school improvement not as *change* but as *group learning*. And it is at the school level that teachers, students, parents, and others spend most of their time in school organizations. It is the school level where participants relationships, habits, and behaviors are most interdependent (Dillon-Peterson, 1990; Fullan 1990, 1991; Fullan & Miles, 1992; Goodlad, 1975; Sergiovanni, 1994).

> It is helpful to think of school improvement not as *change* but as *group learning*.

2. Significant change in practice takes significant time. Organizational improvement occurs as we develop new behavioral patterns and new habits of mind. Old behaviors and habits cannot be discarded any easier than eating habits or taste in dress. New practices and behaviors are complex and can not be installed any easier than a new language or a new diet.

While we can make progress quickly, significant improvement is the result of long-term and focussed effort. Again, barring some catastrophic or revolutionary impact from outside the system, school improvement evolves over time (Maeroff, 1993; Senge 1990).

3. A healthy school climate is necessary for successful site-based improvement. Learning together in groups requires a sense that it is safe to take risks. Attempts at new behavior are likely to be awkward

Principals, by virtue of their position, exert profound infuences throughout the schools they lead. Without their active support, improvement is not likely to occur.

and even incompetent. If participants fear their initial attempts will not be supported, they are less likely to try and less likely to be successful when they do. Similarly, where relationships are characterized by mistrust or resentment, they cannot improve until the mistrust and resentment is healed. New habits of mind cannot be expected to develop when communication is not open (Costa & Garmston, 1994; Maeroff, 1993; Senge, 1990; Sergiovanni, 1994).

*4. **Participants in site-based improvement must make commitments to new results.*** Actions that make a difference are not based on experience but on a commitment to a new vision. As we strive to apply ideas that we accept but do not yet use in practice, it requires focus and commitment to overcome old habits (Block, 1993; Costa & Garmston, 1994; Sparks, 1983).

*5. **The principal is key to facilitating improvement efforts in the school building.*** Principals, by virtue of their position, exert profound influences throughout the schools they lead. They have the power to shift resources, create expectations, impose sanctions, and recognize progress. Without their active support, improvement is not likely to occur (Barth, 1990; Behling, 1981; Maeroff, 1993; Miller, 1982).

*6. **All school personnel should be involved in staff development throughout their professional lives.*** Since this belief was first expressed, the evidence for its importance has only grown. Technological change, social change, and the growth of pedagogical knowledge have all accelerated in recent years.

Further, as improvement becomes a continuous process rather than an event, all school personnel will find needs for new habits and behaviors to be successful. But beyond the need to simply stay current is the added belief that if schools are learning organizations, it is important that all adults involved in the education of young people model the role of learner (IIIDIEIAI, 1995; Levine, 1989; Rubin, 1971; Senge, 1990).

*7. **The purpose of staff development is to improve professional performance and student achievement.*** When viewing the school as a social system and the process of improvement as group learning, it is important to keep the central purposes of the system and the mission of the group in focus. When the activity of participants is not related to the purposes that bind them, the

activities receive less support and the unity of the school community weakens (Levine, 1989; Maeroff, 1993; Wood, 1982).

8. Leadership in designing and implementing site-based staff development should be shared by administrators and other learners. Leadership occurs in many forms and is shared throughout a social system. Similarly, the responsibility for achieving the vision and purposes of the group is shared. As habits and practices are seen as furthering that vision, the leadership for learning the practices and habits is shared among all participants (Barth, 1988, 1990; Sparks, 1983).

9. Providing resources for site-based improvement is the responsibility of the school district. The community of stakeholders that are the participants at the school site come together because of their shared interest in the success of the school and its students and teachers. They commit time and resources to those common purposes. Further, effective improvement requires large amounts of resources (Fullan & Miles, 1992; Wood, Thompson, & Russell, 1981).

The beliefs above reflect much that is emerging in current views of the world and our schools. There is a pervasive assumption that schools are social systems and behave dynamically, interacting internally and with their environments in turbulent or chaotic ways. There is a commitment to the participation of stakeholders or those interested in the success of schools in the process of planned improvement.

The beliefs support the notion that knowledge is constructed by learners and, in the case of schools, groups of learners who must come to share common goals and common meaning in their collective vision. These beliefs focus on results—the goals and purposes that drive the vision of the school community. But beliefs alone are not enough to accomplish school improvement. The challenge of planning and creating the schools that we would have for all our children requires a framework for action.

> Just as individual learners exhibit **readiness**—or a lack of it—to learn; so a community such as the group of stakeholders involved in a school may be ready—or not—for growth.

A Model for Site-Based Improvement

If learning is sometimes uncomfortable or risky, then model processes can provide roadmaps through unfamiliar territory. Just as a young student can benefit from a problem-solving model or a teacher can learn from a new scoring rubric, so a community of learners can use systematic processes to approach the unfamiliar with some confidence.

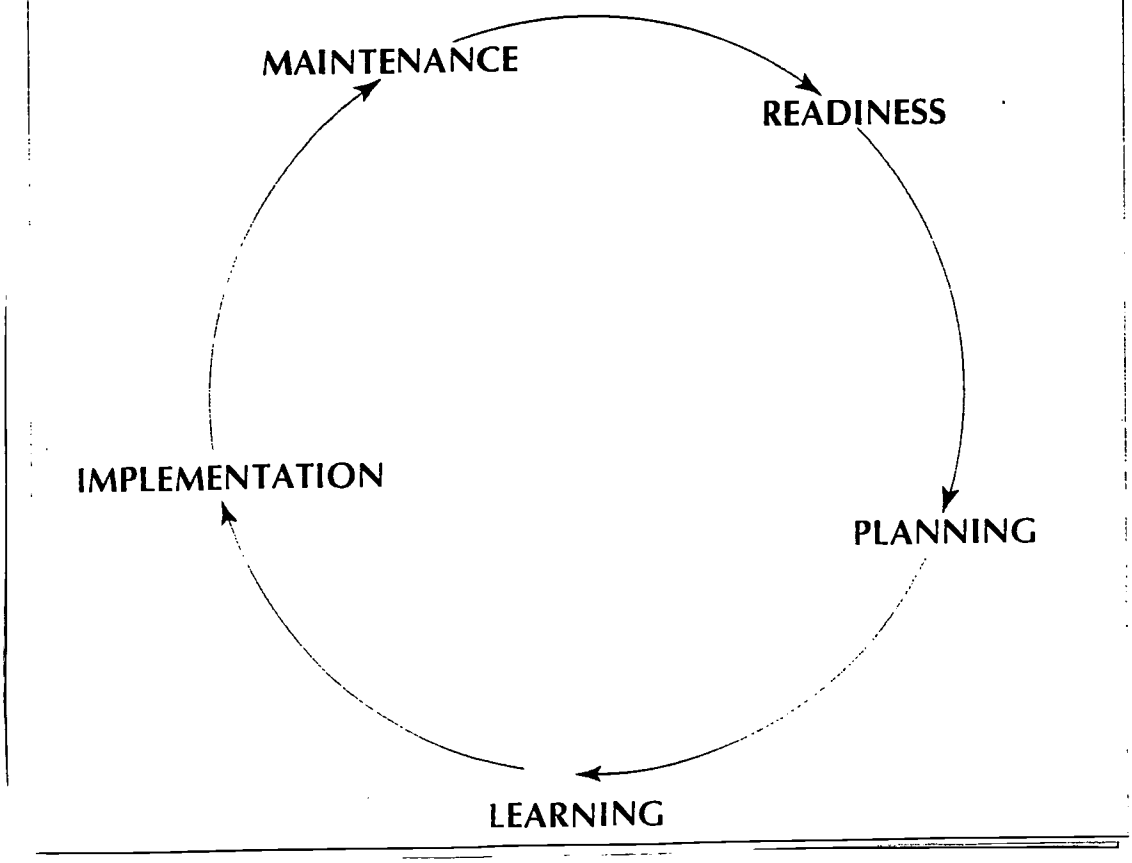
The RPLIM Model

One model that has proved to be helpful in planning for site-based school improvement is

the RPTIM Model (Wood et al., 1981) This model is a synthesis of ideas emerging from the literature in organizational development, adult learning, school change, leadership behavior, and staff development. The model describes five stages or phases of planned change that form a structure for thinking about site-based improvement systematically.

While original stages were readiness, planning, training, implementation, and maintenance, the model was used in school improvement efforts over the years and it became increasingly evident that the term "training" has come to mean a very limited kind of learning. This limited meaning is inadequate to convey the kind of experience needed for contemporary school improvement. In response, this chapter will refer to the third stage of the model as the ***learning*** stage and to the model as the RPLIM Model (see Figure 1).

Figure 1
The RPLIM Model



1. Readiness for Development. Just as individual learners exhibit **readiness**—or a lack of it—to learn; so a community such as the group of stakeholders involved in a school may be ready—or not—for growth. This readiness is usually overlooked in planning development efforts.

Many schools rush to choose innovations or programs without considering the climate, skills, relationships, or values of the school. Yet effective staff development begins by addressing key readiness tasks that include:

- Developing a shared sense of purpose or vision including agreements about how participants will treat each other, what results are desired for learners and the school community in general, and a shared commitment to improvement.
- Developing a view of diversity as an asset and including diverse role groups, experience, backgrounds and points of view in groups that deliberate and make decisions for school improvement planning.
- Developing a climate conducive to learning in which members know each other well, trust one another's motives, feel safe expressing tentative ideas in front of each other, support one another in learning, respect one another's values, and are committed to collaborative relations. A climate characterized by suspicion, resentment, or mistrust will be a barrier to the learning of the community and the growth of the school.
- Developing an information base that can inform choices about what programs or practices to select in improvement efforts. The information base includes knowledge from research, knowledge of best practice within the school and in other schools in the region and nation, reports presented at conferences and professional meetings, and reports from various agencies and organizations interested in schooling and youth.
- Developing a set of written goals for an extended period of time (three to five years) that serve as the focus for the purpose or vision of the school community.

> Without a commitment to continuous improvement, new practices can quickly become fixed and grow stale.

2. Planning for Staff Development and School Improvement. Readiness is followed by more specific, more focused **planning.** Planning is more familiar to staff developers. It is the stage of planned growth in which the vision for improvement becomes focused. Specific practices or innovations are identified as goals for learning. Time lines and budgets are considered. Planning includes the following tasks:

TABLE 1
RPLIM Model Practices

Stage I: Readiness for Development

1. A positive school climate is developed before other staff development efforts are attempted.
2. Goals for school improvement are written collaboratively by teachers, parents, building administrators, and central office administrators.
3. The school has a written list of goals for the improvement of school programs during the next three to five years.
4. The school staff adopts and supports goals for the improvement of school programs.
5. Current school practices are examined to determine which ones are congruent with the school's goals for improvement before staff development activities are planned.
6. Current educational practices not yet found in the school are examined to determine which ones are congruent with the school's goals for improvement before staff development activities are planned.
7. The school staff identifies specific plans to achieve the school's goals for improvement.
8. Leadership and support during the initial stage of staff development activity are the responsibility of the principal and central office staff.

Stage II: Planning for Staff Development and School Improvement

9. Differences between desired and actual practices in the school are examined to identify the inservice needs of the staff.
10. Planning of staff development activities relies, in part, on information gathered directly from school staff members.
11. Inservice planners use information about the learning styles of participants when planning staff development activities.
12. Staff development programs include objectives for inservice activities covering as much as five years.
13. The resources available for use in staff development are identified prior to planning inservice activities.
14. Staff development programs include plans for activities to be conducted during the following three to five years.
15. Specific objectives are written for staff development activities.
16. Staff development objectives include objectives for attitude development (new outlooks and feelings).
17. Staff development objectives include objectives for increased knowledge (new information and understanding).
18. Staff development objectives include objectives for skill development (new work behaviors).
19. Leadership during the planning of inservice programs is shared among teachers and administrators.

Stage III: Learning New Roles and Practices

20. Staff development activities include the use of learning teams in which two to seven participants share and discuss learning experiences.
21. Individual school staff members choose objectives for their own professional learning.
22. Individual school staff members choose the staff development activities in which they participate.
23. Staff development activities include experiential activities in which participants try out new behaviors and techniques.
24. Peers help to teach one another by serving as inservice leaders.
25. School principals participate in staff development activities with their staffs.
26. Leaders of staff development activities are selected according to their expertise rather than their position.
27. As participants in staff development activities become increasingly competent, leadership behavior becomes less directive or task-oriented.
28. As participants in staff development activities become increasingly confident in their abilities, the leader transfers increasing responsibility to the participants.

Stage IV: Implementation of New Practices

29. After participating in inservice activities, participants have access to support services to help implement new behaviors as part of their regular work.
30. School staff members who attempt to implement new learnings are recognized for their efforts.
31. The leaders of staff development activities visit the job setting, when needed, to help the inservice participants refine or review previous learning.
32. School staff members use peer supervision to assist one another in implementing new work behaviors.
33. Resources are allocated to support the implementation of new practices following staff development activities (funds to purchase new instructional materials, time for planning, and so forth).
34. The school principal actively supports efforts to implement changes in professional behavior.

Stage V: Maintenance and Monitoring

35. A systematic program of instructional supervision is used to monitor new work behavior.
36. School staff members utilize systematic techniques of self-monitoring to maintain new work behaviors.
37. Student feedback is used to monitor new practices.
38. Responsibility for the maintenance of new school practices is shared by both teachers and administrators.

Source: Adapted from Thompson, S.R. (1982). *A survey and analysis of Pennsylvania public school personnel perceptions of staff development practices and beliefs with a view to identifying some critical problems or needs.* Doctoral dissertation, The Pennsylvania State University, pp. 52-56.

- Identifying the current practices in a school that support or obstruct the vision of the community for its school.
- Identifying the priority practices that will be introduced to the school in order to advance the priority goals and the vision of the school community.
- Developing detailed written plans that include: clear articulation of the purpose of planned innovations; plans for training participants in new roles; physical and organizational structures that enable new practices; proposed time lines for introducing innovations; consideration of financial and human resources that are needed to support innovations; and plans to develop commitments from boards, associations, unions, or other groups that exert influence over and have an interest in the school's success.

*3. **Learning New Roles and Practices.*** After the tasks described in readiness and planning above are addressed, participants are ready to learn new skills, knowledge, and behavior that grow out of planned innovations. While it is true that participants are learning new skills, attitudes, and knowledge all the time, activities during this phase focus on the high priority goals leading to the achievement of the community's vision.

> The new sciences tell us that the universe is a dynamic, developing system which does not offer us repose but only continuous change and development.

In the past, such learning focused primarily on teachers and administrators. Increasingly, the success of school improvement efforts requires that all the interested stakeholders have access to opportunities to learn new roles and behaviors that will effect the success of new practices in the school.

For example, new programs to develop literacy in beginning readers might include training for parents to develop their understanding of how their children learn to read, how parents can promote literacy by reading at home, and how showing interest in children's reading activity effects learning. New practices designed to develop service learning in schools might include opportunities for support staff to learn how to serve as mentors for students or how they might work with students who are engaged in individual projects and need information and support from adults in many different roles.

Learning should also reflect knowledge of the characteristics of adults as learners. Learning opportunities should include:

- A rationale that presents the community's vision and the place of the new learnings in advancing that vision as well as the-

oretical foundations of and research that supports the learnings.

• Promote the autonomy of learners by providing choices in learning objectives and learning activities.

• Provide opportunities to practice new behaviors and receive feedback about progress in learning.

> Maintenance/ monitoring is one of the most overlooked stages of improvement. Many of our attempts at innovation in the last few decades have been discredited because they have been evaluated without truly being implemented.

• Use small groups structured to allow dialogue and reflection about target learnings.

• Recognize and utilize the existing expertise of participants during learning activities and in leadership functions.

• Include representatives of all stakeholder or role groups in learning activities that effect their participation in the school community. Principals should participate with teachers in learning new instructional strategies; superintendents should join principals in learning activities that effect their leadership behavior; parents and community members should be included in workshops and activities that target the school's vision.

• Whenever possible, use on the job practices to learn new skills or develop action plans to bridge the transition between learning settings and work sites.

4. Implementation of New Practices. Historically, staff development practices have focused on the learning activities with little attention given to what happens after the individual is back on the job. Site-based change is increasingly likely to be successful if it includes plans for systematic **implementation** of training. It is becoming more common for learning to take place in work settings which simplifies much of this planning. Still implementation plans are often overlooked.

Implementation practices can range from simple to elaborate. Successful implementation typically includes:

• Planned visits to work settings by workshop leaders or others with appropriate expertise.

• Planned coaching or peer-observation cycles.

• Access to support resources such as written materials, audio visual materials, new classroom supplies, release time for reflection and small-group interaction, and/or the support of individuals with appropriate expertise.

• Recognition, incentives, and celebrations to honor progress toward desired goals.

5. Maintenance and Monitoring. The concept of continuous improvement is quickly replacing old ideas of improvement-as-an- event. The Japanese term *kaizen* has found its way into North

American jargon and denotes the practice of constantly seeking improvements in procedures and products. Similarly, the expression "you can't stand still" has come to mean that if you are not improving, you are growing weaker or less effective.

Without a commitment to continuous improvement, new practices can quickly become fixed and grow stale. Through **monitoring** and **maintenance,** schools can continue to nurture and promote progress toward the school community goals. Such monitoring and maintenance includes:

- Systematic supervision by school district leaders.
- Peer coaching and systematic consultation among stakeholders in the school community.
- Collection of data to confirm that practices and processes are proceeding as planned. Data collection practices might include focus groups, written surveys, phone surveys, and systematic conversations with groups and individuals.

As with all models, RPLIM is intended to provide a structure for thinking and understanding. Actual improvement in live settings does not follow the stages of planned improvement neatly. There is overlap among the stages. There are many ways to accomplish tasks of the stages. There are features of the model that are realized in different ways at different sites.

The Fractal Nature of Systems

Recently, the study of systems behavior has introduced the young science of chaos. While the study of chaos began with a focus on weather systems, it has since revealed that most natural systems demonstrate self-similarity or are characteristically *fractal.* This means that a small portion of a system looks and behaves like a much larger part.

A small floret of broccoli looks like a whole head of the vegetable. A neighborhood stream and its feeder brooks is similar to the Mississippi and its tributary rivers. The veins in the leaf of a fern resemble the arrangement of fern leaves on a stem. The boundary between land and water looks similar whether viewing the coast from an airplane or watching the shore from a beach house balcony. The ebb and flow of tides resemble the movement of each wave.

This fractal quality can describe human systems as well. Stock market fluctuations over a year resemble the pattern of fluctuations over a decade. Voter behavior over a decade is similar to the pattern over a century. The climate and behavior of the branches of an organization resemble those of the larger organization as a whole. Thus, the climate in a classroom expresses elements of the larger climate of the school; the values of the district are reiterated at the school level. How a school board treats central office staff is reflected in the way that central

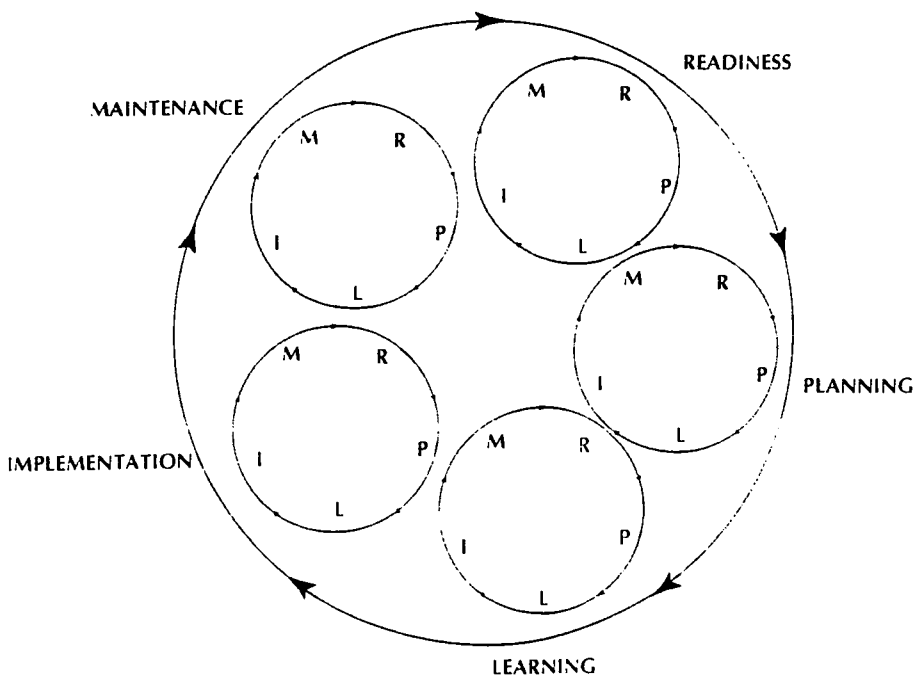
office staff treat school level personnel (Costa & Garmston, 1994; Shanker, 1990; Wheatley, 1992).

Similarly, school improvement using the five-stage RPLIM model exhibits fractal qualities. While the tasks described earlier in this chapter are associated with a particular stage or phase, each stage requires elements of the other stages to be completed successfully. For example, a school focused on the tasks of readiness would need to **plan** systematically to develop shared vision. Those facilitating early activities would participates in learning for themselves and other leaders in how to conduct readiness activities and assure the healthiest climate for improvement. Early on, the schools could collect data to **monitor** whether readiness was being achieved as planned.

The Importance of Continuous Improvement

Newtonian thought held out the promise of a final solution. The universe was seen as governed by laws that when understood would enable us to learn the one true answer and get it right. Such a world view offered the hope of ultimate certainty and perfectibility. Our new understanding suggests that such certainty is illu-

Figure 2
The Fractal Nature of the RPLIM Model



sion. The new sciences tell us that the universe is a dynamic, developing system which does not offer us repose but only continuous change and development.

In schools we must come to see improvement as one step in this ongoing progression. When we perceive improvement as a goal or an event, our efforts are devoted to finding the one best choice, a choice that does not exist. When improvement is seen as a way of life, learning is continuous and progress is success. The greatest pitfall on our path is the illusion that a "solution" awaits us at the end of the journey. In fact, the journey to excellence is never-ending.

Site-Based Improvement in Action

The RPLIM Model is one model for systematic, long-term improvement. Other models are available and have been described by Loucks-Horsley and Hergert (1985) and Sparks (1994). Just as some districts prefer different approaches, those that choose the RPLIM model implement it in different ways. In fact, there are no two districts using the model that devise the same vision or improvements as a result.

Yet the process is not entirely idiosyncratic, and some typical examples of how it is used can be helpful. The following illustrations are a composite of the experiences of many districts that have used RPLIM as implemented with the School Improvement Process of the Institute for the Development of Educational Activities, Inc. of Dayton, Ohio (I|I|D|E|A|.)

Usually, a district begins by securing the commitment of the superintendent, the school board, and often a community group or professional association to embark on a focussed and sustained effort at planned improvement. Such a commitment is important to assure support for the expenditures of time and resources that accompany improvement work. The commitment should be arrived at after some deliberation and should be made publicly by the leaders involved to demonstrate the depth of the commitment and to model the openness of the process. Further, the commitment should include a recognition that quality does not come easily and that no simplistic or quick changes should be expected.

> When we encounter a truly new paradigm, it should evoke the same reaction as a supervisor saying, "You are going to have to completely re-learn your job."

Some additional features of a typical commitment to improvement are: the clear expectation that each school site will embark on planned improvement; the acknowledgment that such significant group learning involves uncertainty and the potential

Typical stakeholder groups include: staff, parents, administrators, community leaders, religious leaders, business representatives, students, retired people, and service agencies.

for mistakes while learning; the promise of support when error occurs out of sincere efforts to take thoughtful risks and involve varied stakeholders in the process of improvement; an offer of district level training in systematic processes to implement site-based improvements; and an acknowledgment that leaders must learn too.

Once a commitment to improve is evident, school sites participate in district-level training of teams of site facilitators who will have responsibility for nurturing and leading the improvement processes at individual schools. To demonstrate a commitment to open communication and to model the involvement of varied stakeholders, this team should include at least the building principal, a teacher, and a parent.

Many schools now include a support staff member, a student, and a community representative. Occasionally, a school site will know of an alternative source of facilitator training and will opt to acquire that expertise outside of the district-level effort. Following the district-level facilitator training, additional readiness activity moves to the site level.

Facilitators then organize site planning teams. These teams can range in size from 10 or 12 to more than two dozen. Most sites now seem to settle on approximately 18 to 20 participants who include members of all groups who care about the success of the school—the stakeholders. Typical stakeholder groups include: staff, parents, administrators, community leaders, religious leaders, business representatives, students, retired people, and service agencies.

The Planning Team, led by the facilitators, first develops the working relationship that is key to successful collaboration. They focus on *team building* to establish trust, understanding of motives, mutual support, and an awareness of common interests. They acquire group *skills* for maintaining open communication, strategies for generating creative ideas, tools for decision-making, and for leadership. They develop an enriched understanding of a broad range of possible practices and innovations to consider as improvements in their local school by *exploring the information base* about schools. This last task is accomplished through examining research, visiting schools with promising practices, attending conferences, reading significant books, and conducting thorough discussions of the implications and meaning of challenges and potential

choices that a team faces.

Throughout, the planning team practices methods for communicating with members of the larger school community that are not present on the Planning Team but who have an interest in sharing in the vision for improvement. All this activity, the team building, skill building, and developing an understanding of the information base, is important to help create a fully-developed vision for the future of the school site. Such in-depth learning usually consumes six to eight months and culminates in a retreat or priority setting session to focus the vision on first steps.

A retreat usually lasts 15 to 24 hours and involves refining and focusing the vision. The results emerge as a set of statements that describe the desired state of the school in three to seven years. In addition, the planning team selects the top priority goals for first action. Finally, the retreat produces concrete plans for communicating the focus of the vision to the larger school community of parents, staff, students, organizations, and patrons.

A quick scan of this activity reveals that the school has been involved in study and learning for up to a year and there is not yet a specific plan for significant changes in instructional practices. It is all readiness for improvement. Successful planning teams remember that group learning and significant change require significant time and energy.

Following the priority setting of a retreat, the planning stage becomes the focus of activity. Planning Teams have successfully used design teams or task groups to address the detailed planning of a new practice. Each priority goal is assigned to a different design team. While a planning team is assembled with a goal of including all stakeholders, design teams are assembled based on the expertise and interest of the members.

For example, a design team charged to plan for a goal related to using technology might include a parent who works for a computer company, a representative from a local cable company, a staff member who is the local computer "hacker," and a librarian or media specialist.

Design teams may have as many as a dozen members or as few as two. They might meet for as short a time as a few days to as long as months, depending on the scope of the goal they are addressing. These design teams typically:

- Clarify the intended effects or result of a priority goal.
- Identify the specific practices that appear best suited to the site and most likely to accomplish the goal (new materials, a different schedule, different grouping patterns, new programs, different roles and responsibilities, adjusted rules, etc.) and indicators of quality that will mark success.

- Determine the institutional and personal commitments that must be secured to install the new practice (union endorsements, board resolutions, department leaders support, PTA endorsements, community support, etc.).
- Determine structural changes, either physical or procedural, that are necessary for successful implementation of the practice (new physical facilities such as extra electrical outlets or storage space or room remodeling, new procedures such as different steps to approve field trips or to award credit, etc.) including the barriers in current practice and facilities.
- Identify opportunities to acquire the necessary knowledge, skills, and attitudes to fulfill new roles and responsibilities (workshops, on the job coaching, parent forums, community information sessions, discussion groups, etc.).
- Determine the resources that are needed to successfully accomplish the plan (budget, personnel, special supplies, etc.).
- Propose a likely time line for carrying out the plan.

This design information constitutes a blueprint for installing a new practice. As with all blue prints, there are often

TABLE 2

Typical Learning Needs of Various Groups

Board of Education Members
- understand long-term organizational change processes
- understand the impact of policy decisions and how past board practice may be a barrier to improvement
- maintain and support vision-based leadership
- support the change in central office administrative practice that must occur if site-based improvements are to be successful

Central Office Staff Members
- facilitate school-level improvement
- learn which tasks are best centralized at the district level and which are better assigned to individual school sites
- work as a team to improve the central office function through planned change
- model the role of learner including a willingness to take risks, be reflective and admit uncertainty

Parents
- work in new ways with teachers as partners
- support their children's learning at home
- hold new expectations for teachers and the school
- hold new expectations for school boards and district-level officials
- work in new ways with other patrons to share the responsibility for the quality of the schools in the community

Teachers
- work with parents as partners in their children's learning
- use new instructional strategies in the classroom
- model the role of lifelong learner
- collaborate with administrators and other colleagues in shared decision making
- help colleagues to learn and grow through peer coaching, professional discussion groups, reflective practice, and teacher leadership

Principals
- share leadership responsibilities with staff and parents
- involve others in decisions that effect them, their children and students
- lead the school community based on a widely shared vision
- see control and accountability in ways that are consistent with our understanding of system behavior and group growth.
- become facilitators rather than managers

adjustments at the point of construction, but the essential elements are described in detail before the new practices are implemented.

Planning teams receive these design team reports and the design teams dissolve. The planning team as the "keepers of the vision" have responsibility for implementing the plan. Early steps in the plan typically include opportunities to learn new skills. But while historically learning opportunities have focussed almost exclusively on classroom staff, significant innovations often require that many others such as parents, administrators and central office staff learn new ways of behaving, new skills, or new attitudes (see Table 2).

While many of these learning goals apply generally to site-based improvement, specific goals emerging from design team plans also denote new learnings for various people beyond the classroom.

Implementation, viewed simply, is putting the plan into action. But viewed more thoroughly, it includes plans for follow-up to learning events, peer coaching systems, and frequent discussion, reflection, and adjustment to the blueprint.

Maintenance/ monitoring is one of the most overlooked stages of improvement. Many of our attempts at innovation in the last few decades have been discredited because they have been evaluated without truly being implemented. Monitoring is intended to assure that schools do what they planned before judging the efficacy of the action. For example, if service learning is to be evaluated and judged successful or not, it is important to first determine whether service learning is being implemented appropriately with the necessary support, learning opportunities, and commitment (Charters & Jones, 1974).

To make such a determination, school sites typically employ one-to-one interviews, focussed groups, phone interviews, observations and surveys. It is critical to regard this step as a learning opportunity to understand what has occurred, what worked well, what was ineffective, and to what extent intents have been honored and achieved. Viewed in this way, monitoring becomes a tool, not of evaluation, but of feedback and growth. It serves to maintain the progress of site-based improvement and encourage participants to think of ways to do fix weaknesses in process rather than to fix blame. It also maintains a focus on the shared vision.

Organizational Learning and A New Paradigm

Transitions to new paradigms, new world views, are turbulent. In his examination of scientific paradigm shifts, Thomas Kuhn describes such transitions as revolutionary, characterized by conflict, heated debate, and fear. Such intensity of emotion should not be surprising,

for after a true paradigm shift, old skills, old knowledge, and old attitudes simply don't work. In fact, if an innovation is presented as a "new paradigm" and it looks comfortable or easy or requiring only minor adjustments, we should not be fooled, for it can't be a different paradigm at all.

When we encounter a truly new paradigm, it should evoke the same reaction as a supervisor saying, "You are going to have to completely re-learn your job." Fortunately, our emerging knowledge about school improvement is helping us to understand that the best, most effective, and most successful improvements come from a view of school change as organizational learning.

It is fortunate because that knowledge means we need not face the trial and turbulence of re-learning our jobs alone. We can—and should—face the task together as members of a community of learners. And this may be the newest paradigm of all, that successful improvement is group learning and that the success of individuals depends upon the success of all the members of the school community.

References

Barth, R. (1988). School a community of leaders. In A. Lieberman (Ed.), *Building a professional culture in schools.* New York: Teachers College Press.

Barth, R. (1990). *Improving schools from within.* San Francisco: Jossey-Bass.

Behling, H.E., Jr. (1981). *What recent research says about effective schools and effective classrooms.* Cheleonsford, MD: Update Northeastern Region Exchange.

Block, P. (1993). *Stewardship: Choosing service over self-interest.* San Francisco: Berrett-Koehler Publishers.

Charters, W.W., Jr., & Jones. J.E. (1974). *On neglect of the independent variable in program evaluation.* Eugene, OR: Center for Educational Policy & Management.

Costa, A., & Garmston, R. (1994). *Cognitive coaching: A foundation for renaissance schools.* Norwood, MA: Christopher-Gordon Publishers.

Dillon-Peterson, B. (1990). The Lincoln experience: Development of an ecosystem. In B. Joyce, (Ed.), *Changing school culture through staff development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Fullan, M. (1990). Staff development, innovation, and institutional development. In B. Joyce (Ed.), *Changing school culture through staff development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Fullan, M. (1991). *The new meaning of educational change.* New York: Teachers College Press.

Fullan, M., & Miles, M.B. (1992). Getting reform right: What works and what doesn't. *Phi Delta Kappan, 73*(10), 745-752.

Goodlad, J. (1975). *The dynamics of educational change.* New York: McGraw-Hill.

IIDIEIAI. (1995). *School improvement process: Workshop I facilitator materials.* Dayton, OH: Institute for Development of Educational Activities, Inc.

Levine, S. (1989). *Promoting adult development in schools: The promise of professional development.* Boston: Allyn and Bacon.

Loucks-Horsley, S.R., & Hergert, L. (1985). *An action guide to school improvement.* Alexandria, VA: The Association for Supervision and Curriculum Development/The Network.

Maeroff, G.I. (1993). *Team building for school change.* New York: Teachers College Press.

Miller, S.K. (1982). School learning climate for improvement. *Educational Leadership, 40*(4), 36-37.

Rubin, L. (1971). *Inservice education of teachers: Trends, processes, and prescriptions.* Boston, MA: Allyn and Bacon.

Sarason, S. (1995). *Parental involvement and the political principle: Why the existing governance structure of schools should be abolished.* San Francisco: Jossey-Bass.

Senge, P.M. (1990). *The fifth discipline.* New York: Doubleday/Currency.

Sergiovanni, T. (1994). *Building community in schools.* San Francisco: Jossey-Bass

Shanker, A. (1990). Staff development and the restructured school. In B. Joyce (Ed.), *Changing school culture through staff development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Sparks, D. (1994, Sept.). School improvement requires more than planning. *School Team Innovator,* pages 1, 6.

Sparks, G.M. (1983). Synthesis of research on staff development for effective teaching. *Educational Leadership, 41*(3), 65-72.

Thompson, S.R. (1982). *A survey and analysis of Pennsylvania public school personnel perceptions of staff development practices and beliefs with a view to identifying some critical problems or needs.* Doctoral dissertation, The Pennsylvania State University.

Wheatley, M. (1992). *Leadership and the new science: Learning about organizations from an orderly universe.* San Francisco: Berrett-Koehler Publishers.

Wood, F., Thompson, S.R., & Russell, F. (1981). Designing effective staff development programs. In B. Dillon-Peterson (Ed), *Staff development/organizational development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Wood, F., & Thompson, S.R. (1993). Assumptions about staff development based on research and best practice, *Journal of Staff Development, 14*(4), 52-57.

Related Readings

Bentzen, M. (1974). *Changing schools: The magic feather principle.* New York: McGraw-Hill.

Bridges, W. (1991). *Managing transitions: Making the most of change.* Reading, MA: Addison-Wesley.

Cunningham, W.C., & Gresso, D.W. (1993). *Cultural leadership: The culture of excellence in education.* Boston: Allyn and Bacon.

Glickman, C. (1993). *Renewing America's schools: A guide for school-based action.* San Francisco: Jossey-Bass.

Joyce, B. (Ed.). (1990). *Changing school culture through staff development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Khun, T.S. (1970). *The structure of scientific revolutions,* 2nd ed. Chicago: University of Chicago Press.

Levine, D.U., & Eubanks, E.E. (1992). Site-based management: engine for reform or pipedream? Problems, prospects, pitfalls, and prerequisites for success. In J. Lane & E. Epps (Eds.), *Restructuring the schools: Problems and prospects.* Berkeley, CA: McCutchan.

Lieberman, A. (Ed.). (1988). *Building a professional culture in schools.* New York: Teachers College Press.

Sarason, S. (1990). *The predictable failure of educational reform.* San Francisco: Jossey-Bass.

Schwarz, P. (1995). A call for true and equitable discourse. *Daedalus, 124*(4), 115-117.

Williams, R.C. et al. (1974). *Effecting organizational renewal in schools: A social systems perspective.* New York: McGraw-Hill.

Wood, F. et al. (1993). *How to organize a school-based staff development program,* Alexandria, VA: Association for Supervision and Curriculum Development.

About the Author

Steven R. Thompson is a program associate at the Institute for Development of Educational Activities, Inc., 259 Regency Ridge, Dayton, Ohio 45459, (513) 434-6969, (e-mail: ideadayton@aol.com).

In more than 25 years as an educator, Steve Thompson has worked in a variety of teaching and administrative positions in elementary through graduate schools. His principal interests have been school improvement and organizational change. Thompson's first goal has been to become a lifelong learner that staff developers everywhere call us to be. He is currently a program associate at the Institute for Development of Educational Activities, Inc., a private, non-profit foundation engaged in school improvement and leadership programs for educators and their communities.

Chapter

3

Broadening the Concept of Teacher Leadership

Michael G. Fullan

Why has effective educational reform remained so elusive despite the investment of billions of additional dollars and the heroic efforts of individual principals and teachers? The theme that I will pursue in this chapter is that there is one absolutely necessary, if not sufficient, condition for reform to work—the substantial broadening of teacher leadership until it embodies the *majority* of teachers in a given school, a given district, a given state, a given profession.

Glimpses of the Solution

On October 25, 1995, *The New York Times* contained an article titled "At New York's Bad Schools, Problem Wasn't Just Money." The lead paragraph observed:

Last year, only 12 percent of Public School 304's third graders were reading at or above grade level, among the lowest in the city. The school in the Bedford-Stuyvesant section of Brooklyn has had four principals in four years. Despite several years of intervention of the state, the city, the federal government, and nationally known educators, P.S. 304 has never made it off the state's list of the city's worst schools.

In Chicago, millions of dollars are being poured into a reform effort designed to alter the fate of its 540 schools with the jury still out on whether it will make any difference for students. In England, a growing list (now over 50) of "failing schools" has been identified by the national office of inspection (OFSTED) as requiring emergency attention and action (Barber, 1995).

In *Education Week*, November 1, 1995, the headline report on the Coalition for Essential Schools read: "Mixed Record for Coalition is Seen." The article proceeded to observe that some schools of the 916 high schools who belong to the coalition have experienced success, but many have experienced problems. Donna Muncey, one of the external evaluators observed: "a lot of schools got off to a good start and then seemed to fade away." After five years, she found that implementation was limited to pockets of teachers and had

not spread beyond them.

These are dramatic examples from a long list of failed, partial, or unsustainable change in schools which must have Foundations wondering whether progress will eventually be made (i.e., change is complex and takes time), or whether the outside-in strategy is a financial sink hole. What worries reformers or sponsors most is that they are occurring in situations where large, even massive infusions of resources has been part of the strategy.

Clearly we have to go deeper for an explanation, and I offer the following paradox as a point of departure for discussion: *You can't change schools from the outside, but the outside is essential.*

Let us start from the "inside" of the school using some recent research on cases of comparatively successful school change. Wohlstetter (1995) summarizes her research on Site- Based Management (SBM) in 44 schools in which she found that some schools were "actively restructuring successfully", while others were not affecting teaching and learning. All schools were engaged in SBM reforms.

I offer the following paradox as a point of departure for discussion: *You can't change schools from the outside, but the outside is essential.*

Wohlstetter (1995) found, as others have, that SBM often fails to make a difference. It fails when:

1. *Site-based management is adapted as and end in itself* (in which SBM has little connection to reform in curriculum, teaching, and learning).

2. *Principals work from their own agendas* (i.e.,the principal worked from his or her own vision and agenda).

3. *Decision-making power is lodged in a single council* (in which the principal and a small group of teachers attempt to take responsibility for the school as a whole).

4. *Business proceeds as usual* (in which SBM was layered on top of whatever else was happening).

By contrast, the successful schools (Wohlstetter, 1995):

1. *Establish many teacher-led decision-making teams* (in which many subgroups were formed to work on specific tasks with lots of communication and dialogue).

2. *Focus on continuous improvement with schoolwide training in functional and process skills and in areas related to curriculum and instruction* (in which professional development was a very high priority for all and was deliberately tied to specific school reform objectives and to developing a schoolwide capacity for change).

3. *Create a well developed system for sharing school-related information with a broad range of constituents* (in which many forms of informa-

tion were collected and shared among the school, the community, and the district).

4. *Develop ways to reward staff behavior that helps achieve school objectives* (in which work well done is regularly recognized, including differentiated staffing, extra compensation for administrative duties, professional development grants, and the like).

5. *Select principals who can facilitate change* (in which principals "played a key role in dispersing power, in promoting a schoolwide commitment to learning, and in expecting all teachers to participate in the work of the school". (p. 24)

6. *Use district, state, or national guidelines to focus reform efforts and to target changes on curriculum and instruction* (in which external policies were used to leverage resources and to focus on frameworks and assessment standards and performance).

Similarly, the Walter and Duncan Gordon Charitable Foundation in funding secondary school reform in Manitoba, Canada in some 21 schools is finding that more progress is made when five things occur (Walter and Duncan Gordon Charitable Foundation, 1995):

1. *Focus on student learning* (a preoccupation with student engagement, teaching, and learning)

2. *Build coherence and shared goals* (set directions, reflect on school improvement efforts, pull together learnings into coherent new directions)

3. *Broaden leadership and get others involved* (expanding the leadership net to include ever increasing numbers of teachers, parents, and students)

4. *Connect to the world outside the school* (drawing on community, business, university resources, and networks)

5. *Keep track of how you are doing* (evaluation of progress and corresponding reflection and action)

> The issue for external authorities or agencies who wish to play a major role in school reform is not just the general one of how to mobilize teachers, students, and parents, but how to become a *primary force for helping to integrate and focus the reform work of the school.*

In a study for the U.S. Office of Educational Research and Improvement, Rossi and Stringfield (1995) reviewed the research from the past 30 years and examined ongoing experiences of reform in 18 schools that had a record of success in working with at-risk students. Their main findings form

a now familiar list of clustered characteristics:

1. Shared vision, shared purpose, shared values
2. Incorporation of diversity
3. Communication and participation
4. Caring, trust, and teamwork
5. Respect and recognition

I call the above examples "glimpses of the solution" because our failure to achieve even interim successes except in a minority of cases leads to the question of why these powerful components cannot be established on a wider scale.

Table 1

System-Level Formal Elements	School-Level Broad-Based Mobilization
Curriculum Framework	Teachers engaged in making changes in curriculum and instruction
Assessment System	Collection, examination, and shared meaning of student achievement data
External Programs and Support Systems	Close coordination and mutual influence of outside relationships
Teacher Education and Teacher Leadership	Collaborative cultures and continuous learning at colleges of education and schools
School Councils	Teachers and parents involved in multiple ways in education of students
School Development Plans	Making and meaning of plans widely owned

Putting It Together

One may think that the key building block for educational reform is the skilled, passionate teacher committed to engaging all students in learning. If your answer to this is a literal yes, you begin to miss the point. We have scores of passionate teachers, but they are more likely than not to burn out.

Consider the following hypothesis: *the more that we observe passionate teachers burn-out, the less likely there will be others to replace them.* Moral martyrs are inspiring role models for short periods of time under extreme conditions, but they are not the answer to broad-based continuous reform.

Robert Fried (1995) says that passionate teachers are getting exhausted in the face of apathy and resistance, and that "like it or not, passionate teachers may need to become reformers as well" (p. 50).

I believe that promising ideas and new directions often fail to affect more than small pockets

of the system because "formal elements" that are needed are not sufficient to mobilize large enough numbers. Even when these elements are in the right direction, they are at best picked up by a few groups and individuals who are especially proactive.

Because these groups are small in number and proportion and because the task is so daunting, these educators inevitably burn out or move on.

> The goal is to engage the majority of teachers in creating collaborative work cultures by deepening the focus on inquiry, assessment, teacher interaction and sharing, and continuous problem solving.

When the system imposes formal (let's assume sound) ideas on the system without a broad-based mobilization strategy, the ideas tend to fail, thereby adding credence to the "this too shall pass" constituency.

A more positive and powerful possibility involves linking the formal elements in today's education reform scene with their broad-based mobilization implications (see Table 1). The agenda, I think, is not only to work on the formal elements and their interconnections (systemic reform in the air), but also to generate and interrelate the corresponding mobilization actions for large numbers of educators and their constituencies (systemic reform on the ground).

Each of the elements in Table 1 will be discussed briefly to illustrate this line of thinking and action. One word of caution: the mobilization strategies are not six discrete sets of activities, but rather are one integrated set that plays itself out at the school level, for example, through school development plans.

1. ***Curriculum Framework.*** Inspiring and sound curriculum frameworks are needed at the system level. Such frameworks, however, must be coupled with large scale mobilization strategies which incorporate the elements found to be associated with successful school-level reform (e.g., as in the previous section). Honig (1994) describes such a purposeful network in California in which large numbers of schools are organized around powerful visions and supported through networks of action.

In addition to being purposeful, the strategic and tactical features of networks include:

- ongoing, systematic multilevel staff development (usually involving identified teacher leader roles within each school clustered and stimulated/supported by external staff developers).
- multi-method sharing of ideas through telecommunications, cross-visitation, and problem-solving and celebratory workshops.
- integration with schoolwide and districtwide priorities, and mechanisms

including: leadership of school principals, collective actions by the majority of teachers, community development, school improvement plans under district auspices, growth-oriented performance appraisal schemes, and teacher union interests in professional development).

• a commitment and preoccupation with inquiry, assessment of progress, and continuous improvement.

The network strategy thus assumes that people need integrating (coherence-making) mechanisms, that continuous skills development is essential, that people need to experience new ways of teaching and learning in pressure and support environments, and that change requires external facilitation in support of internal capacity-building. The net effect is to mobilize a large number of educators in relation to a powerful and inspiring curriculum framework.

2. ***Assessment Systems.*** Assessment systems for student learning must be both sound (the formal element) and organized for teacher sharing and learning. In the same way that weighing a pig does not make it fatter, testing per se does not affect student learning. As Linda Darling-Hammond (1995) so clearly observes, the purposes and uses of tests are just as important as their nature and content.

Darling-Hammond argues that assessment systems must focus on equity of learning as well as enhancing teaching and learning and that at least five conditions are necessary to make testing effective as a lever for school change: (a) they must report on and help us understand performance; (b) they must involve teachers in the process; (c) there must be room for choice; (d) they must be authentic and rich (i.e., get at how students think as well as how much they know); and (e) provide an opportunity for teachers to learn.

The value of tests, then, is to help track performance and to provide rich information that will help shape curriculum and teaching. Assessment systems in this sense should guide and lead local practice. Echoing the themes discussed earlier, Darling-Hammond says that assessment systems are not "testing days" but need to be embedded in the curriculum as practiced. They are, above all, a means for developing shared commitment and action for schoolwide change focusing on more challenging goals.

> On the whole, most parents have (or can be helped to have) assets and expertise that are essential to the partnership.

This, of course, is a tall order. In most change efforts, we find that the evaluation and inquiry habits necessary for reform are the last and most difficult aspects to be addressed (Walter and Duncan Gordon Charitable Foundation,

> Teachers in ineffective schools know that something is radically wrong, and many want to do something about it but do not know where to start.

1995). Thus, one of the most challenging changes required is to create mechanisms (such as School Quality Reviews) and to embed norms of school-wide inquiry, reflection and corresponding actions in relation to indicators of performance. Testing will not make a difference until large numbers of teachers engage in this process together.

3. ***External Programs and Support Systems.*** Recall the paradox "you can't change schools from the outside, but the outside is essential." By the outside, I mean school districts, states, Foundations, national reform programs, and other agencies attempting to bring about reform. We know that neither top-down nor bottom-up strategies by themselves work (Fullan, 1993).

It is noteworthy that the movement in England to Grant Maintained Schools (funded directly by the state, independent of local school districts) has faltered and has been recently accompanied by the resurgence of a new role for Local Education Authorities in helping to lead school improvement through more intensive pressure and support strategies (Barber, 1995). Schools cannot reform themselves in isolation, no matter how committed they are to do so.

Foundations are also learning how to become better change agents, both directly and indirectly (through intermediate agencies and projects they fund). I know of no Foundation that is not struggling with questions about how to enact change and whether they can make a difference. Yet, there are powerful, more sophisticated initiatives underway as referenced in this chapter.

The issue for external authorities or agencies who wish to play a major role in school reform is not just the general one of how to mobilize teachers, students, and parents, but how to become a *primary force for helping to integrate and focus the reform work of the school.* A fundamental difficulty with the reform movement is that it actually contributes to rather than helps solve the problem of overload and fragmentation (Fullan, 1996).

An external change agent cannot represent "one more project." To be effective, the dual preoccupation of external reformers should be to focus on the elements of implementation of the program or initiative in question, but to do so in a way that actively and explicitly helps *integrate* the work of the school. Internal capacity building is a coherence-making proposition which cannot be done from the inside acting alone.

Therefore, the role of the external agency is to

be a primary consultant for interrelating its work with the total reform agenda of the school. Put another way, since the school is faced with multiple reform opportunities (or impositions), the mobilization strategy most needed is one that helps achieve greater coherence, integration, skill-building, shared meaning, continuous inquiry, and processing. The six formal elements in Table 1 do not do this. The mobilization strategies in combination do.

4. ***Teacher Education and Teacher Leadership.*** Teacher leadership and teacher education have enjoyed increasing attention. New teacher leadership roles (mentoring, curriculum leaders, staff developer, lead teachers, etc.) as a formal solution have been of great benefit to the individuals occupying the role, but have often ended up distancing these teachers from their colleagues as these strategies failed to take into account the culture of the school (Fullan, 1994). The key issues as I see them are twofold: to broaden the leadership roles of more and more teachers while reshaping the culture of the school that produces built-in collaboration involving all (or the majority of) teachers.

> Changes in collaborative norms, skills, and practices among educators and between educators and other partners in the community and elsewhere must be part and parcel of structural change. These changes must focus on new approaches to teaching, learning, assessment, and continuous problem solving.

The Danforth Foundation has turned its attention to teacher leadership and is considering a series of priorities including (a) identifying and broadening the definition of teacher leadership roles; (b) funding and supporting teacher leadership roles, especially those that link to building collaborative schools and that integrate across projects; (c) and assessing and evaluating the impact of teacher leadership work on teachers as well as on student learning (Yoder & Badali, 1995).

The Rockefeller Foundation is immersed in a major school reform initiative *Building Infrastructures for Professional Development* which is "to help four urban districts—Albuquerque, Flint, San Antonio, and San Diego—design and implement comprehensive plans for high quality, relevant, and ongoing professional development opportunities for educators, administrators, and lay leaders that are sustainable and sys-

temic" (Rockefeller Foundation, 1995).

Both of these initiatives represent "mobilization strategies" that go far beyond the formal elements of attempting to establish new leadership roles. The goal is to engage the majority of teachers in creating collaborative work cultures by deepening the focus on inquiry, assessment, teacher interaction and sharing, and continuous problem solving.

Nothing motivates a child more than when learning is valued by schools and families/community working in partnership.

As teacher leadership must change, so must teacher education. As school cultures must change, so must the cultures of universities. A number of networks have been established involving sets of school-university partnerships engaged in radically redesigning teacher education, and attempting to change simultaneously *both* schools and schools of education (Fullan 1993, chp. 6).

It is beyond the purpose of this chapter to examine this movement except to say that there are promising reforms underway, and that if anything, universities are harder to change than schools. Yet, educational reform—the six elements examined in this chapter—will not happen unless new collaborative cultures and partnerships are part and parcel of the new scene.

5. ***School Councils.*** The establishment of School Councils with parent and community participation in advisory or decision-making roles is an international phenomenon of major proportions. Again, we must focus on the mobilization of effort, not just on the formal element. The research is abundantly clear: nothing motivates a child more than when learning is valued by schools and families/community working in partnership.

Furthermore, you can do something to improve this relationship through deliberate action.

For the same reason that site-based management (involving teachers) bears no relationship to change in the culture and learning of the whole school, the presence of School Councils, per se, does not affect student learning. The establishment of a Council involving a handful of parents (not to mention matters of representation and skill) could not possibly improve the learning for the hundreds of students in the school. What does make a difference is the multiple forms of particular involvement deliberately fostered, developed, and supported.

Summarizing over a decade of research and development of best practice, Epstein (1995) makes the case unequivocally. At least six types of involvement working in concert are needed to make a difference. These are programs that promote greater:

1. Parenting skills (improving home environments)
2. Communication (two-way school-to-home)
3. Volunteering or parent aides (recruit and organize parent help)
4. Learning at home (specific home tutoring assistance)
5. Decision making (involve parents and develop parent leaders)
6. Coordinating with community agencies (identify and interpret community services.

Note that involvement in decision making is only one of six forms (and a skilled form at that). Moreover, these forms of involvement do not happen by accident or even by invitation. They happen by explicit strategic intervention. In other words, both parents and educators need staff development in their new roles and new role relationships in order to become effective. Put differently, parent development and mobilization along with teacher mobilization are essential.

On the whole, most parents have (or can be helped to have) assets and expertise that are essential to the partnership. Parents have knowledge of their child that is not available to anyone else, they have a vested interest in their child's success, they have the expertise of the customer who is paying for and experiencing a service, they have valuable knowledge and skills by virtue of their "special interests, hobbies, vocation, and community" role (see Dolan, 1994, chp. 14; Sarason, 1995, chp. 4). Dolan (1994) concludes that "to educate children without a deep partnership of teacher parent is hopeless" and that we condition people to "minimal interaction, indifference, maybe even suspicion" (p. 159).

Restated, the only key building block with any staying power is when the majority of teachers become moral change agents. This is what I mean by broadening teacher leadership.

Both parents and educators need staff development in their new roles and new role relationships in order to become effective.

Without knowledge for change, School Councils can easily become diversions where energy is diverted to compliance and power struggles not to capacity building. A School Council according to Dolan can easily get diverted into petty power struggles, forgetting that its main business is not decision making per se, but "driving the change" (p. 131).

6. ***School Development Plans.*** School Development Plans or School Improvement Plans are an essential integrating requirement. As crucial as this element is, there is very little research on school plans, or more importantly, on the school planning process itself. As before, it is not just the formal content of the plan that counts, but especially, whether the planning

process develops shared meaning and ownership.

One of the very few studies of school planning was conducted in nine primary schools by MacGilchrist and her colleagues (1995) in England. They found four types of School Development Plans (SDP):

• *The rhetorical plan: School A.* There was no written plan; instead the SDP had to be culled from the general report to governors, and it was the governors who appeared to be the main audience. The plan, which was more like a curriculum development plan, lacked focus. It was difficult to discern how it was to be managed, given that targets, success criteria, and review and evaluation arrangements were not identified explicitly.

• *The singular plan: School B.* The headteacher wrote the plan, although there was some reference to consultation with staff and governors The plan comprised a collection of papers. It was not a working document, and it was not written in a form that could be used by staff. The main audience of at least some of the papers appeared to be the governors. The plan lacked a clear management strategy. Targets were general in nature and concerned schoolwide issues. No review procedures were built in, although arrangements for reporting to governors were evident.

> A School Development Plan is potentially one of the most powerful integrating mechanisms at our disposal.

• *The co-operative plan: Schools C to G.* The plans were all said to be written following staff discussion and there was evidence of staff involvement in writing the plan in two of the schools although the audience was unclear across all five schools.

For four out of five of the schools it was a working document. For the fifth school, it took the form of a published report. Management of the process was in evidence but, with the exception of one school, there was a noticeable lack of success criteria, and the targets for improvement were rather general.

Review procedures were incorporated into all the plans but in some cases these were limited in nature. In four plans, reporting arrangements were difficult to assess and governors were not mentioned. In the fifth plan there was evidence that SDP was reported to the LEA [Local Education Authority].

• *The corporate plan: Schools H and I.* There was considerable similarity between the two school plans. There was clear evidence that the plans had been written as a result of staff discussion and agreement. They had

been written for a wide audience including teaching and support staff, governors and LEA inspectors, and advisory teachers.

They were both open, working documents, and it was significant that both schools had a clear policy statement about the aims and purposes of the development plan and that these guided the format and content of the plans. The management of the process was clearly identified and included targets, success criteria, and regular review and evaluation procedures. For both plans, reporting arrangement involved staff, governors and the LEA. In one school, parents were also included (pp. 157-158).

In short, a School Development Plan is potentially one of the most powerful integrating mechanisms at our disposal because it can incorporate on a schoolwide basis all six formal elements in a synergistic and organic manner. But, if they are to work, they require a radical change in the culture and practice of teaching, of schools, of systems, and indeed of the profession of teaching.

Conclusion

The first and overriding conclusion is the realization that a system could have all six formal elements in place without making any significant difference in teaching and learning. Impact will only be achieved when substantial mobilization of effort involving scores of teacher-leaders and administrators results in the broadening of involvement by the majority of teachers and schools. This effort must cut across and help integrate the six areas of activity represented on Table 1.

Can this possibly be done? Maybe not, but there is more chance if reform is understood and worked on with greater focus and intensity of effort. On the question of how to turn around schools like P.S. 304 referred to earlier in the *New York Times* article, there is some interesting research coming out of the United Kingdom. A number of researchers have raised the question that strategies for working with so called "ineffective schools" may not be the same as the strategies you would derive from starting with "the effective schools" knowledge base.

> The role of the Council is to help identify and generate the forces and resources for change by developing the skills of parents, teachers, students, and principals.

Reynolds (in press), for example, argues that it may be more productive to view ineffective schools as having certain dysfunctional characteristics rather than starting with the effective school factors. Thus, he says that ineffective schools "may not evidence simply the absence of 'strong purposeful leadership' — it

may possess additionally fragmented, confused and inconsistent leadership" (Reynolds, in press, p.5; also see Stoll, 1995). Rather, the role of the Council is to help identify and generate the forces and resources for change by developing the skills of parents, teachers, students, and principals.

Incidentally, teachers in ineffective schools know that something is radically wrong, and many want to do something about it but do not know where to start. Barber (1995) suggests that a combination of strategies may be needed, including some or all of the following: changing the principal, providing external consultancy, changes in the staff, changing the culture, greater openness and focus on performance information, integrated staff development, school development plans, and the like.

These changes on a wide scale are the new three R's—restructuring, reculturing, and retiming. Schools and their communities must be restructured to enable them to work in the ways described in this chapter. But restructuring—literally changing the structure and formal roles—does not necessarily result in reculturing. Changes in collaborative norms, skills, and practices among educators and between educators and other partners in the community and elsewhere must be part and parcel of structural change. These changes must focus on new approaches to teaching, learning, assessment, and continuous problem solving.

Broadening teacher leadership until it becomes the norm is vital for educational reform.

Retiming, or redesigning the way teachers and students spend their learning time is badly needed. Schools are currently ill-designed for learning for both teachers and students (Fullan, 1995). The organization and use of time, accompanied by new cultures and new structures, must be re-designed from the ground up.

In effect, we are talking about sea changes in the teaching profession itself. Teaching has not come of age as a profession. Teacher education has uneven quality, and from a policy point of view, is not taken seriously by governments. There is no indication that this is changing as governments contemplate less expensive, alternative forms of teacher certification. They do not see teacher education as something worth investing in.

The working conditions of teaching from basic technical needs to learning opportunities on the job are not what any profession on the move should tolerate. The changes we are talking about must be leveraged from the inside and from

the outside in combination. It is only when the majority of teachers embody the new norms and practices discussed in this chapter that quality will have any self-generative capacity at all.

It is doubtful that this can be accomplished given the track record and the tendencies to falter even when pockets of success are accomplished. But let us at least get the agenda right. Broadening teacher leadership until it becomes the norm is vital for educational reform.

References

Barber, M. (1995). *The dark side of the moon: Imagining an end to failure in urban education.* London: The TES/Greenwich Education Lecture.

Darling-Hammond, L. (1995). *Effects of assessment choices on teaching, learning and equity.* Toronto, Canada: The Learning Consortium International Conference on Evaluation.

Dolan, P. (1994). *Restructuring our schools.* Kansas City, MO: Systems & Organizations.

Epstein, J. (1995). School/family/community partnerships. *Phi Delta Kappan, 76*(9), 701-712.

Fried, R. (1995). *The passionate teacher.* Boston, MA: Beacon Press.

Fullan, M. (1993). *Change forces: Probing the depths of educational reform.* London: Falmer Press.

Fullan, M. (1994). Teacher leadership: A failure to conceptualize. In D. Walling (Ed.), *Teachers as leaders: Perspectives on the professional development of teachers* (pp.241-253). Bloomington, IN: Phi Delta Kappan.

Fullan, M. (1995). The school as a learning organization: Distant dreams. *Theory Into Practice, 34*(4), 230-235.

Fullan, M. (1996). Turning systemic thinking on its head. *Phi Delta Kappan, 77*(6), 420-423.

Honig, B. (1994). How can Horace be helped? *Phi Delta Kappan, 75*(10), 790-796.

MacGilchrist, B., Mortimore, P., Savage, J., & Beresford, G. (1995). *Planning matters.* London: Paul Chapman Publishing.

Reynolds, D. (in press). Turning Around the Ineffective School. In J. Gray, D. Reynolds, C. Fitzgibbon, & D. Jesson (Eds), *Merging traditions: The future of school effectiveness and school improvement research.* London: Cassells.

The Rockefeller Foundation (1995). *Building on infrastructure for professional development.* New York: Rockefeller Foundation.

Rossi, R., & Stringfield, S. (1995). What must we do for students placed at risk. *Phi Delta Kappan, 77*(1), 73-76.

Sarason, S. (1995). *Parent involvement and the political principle.* San Francisco: Jossey-Bass.

Stoll, L. (1995). *The complexity and challenge of ineffective schools.* Paper presented at the European Conference on Educational Research, University of Bath.

Walter and Duncan Gordon Charitable Foundation (1995). *The seeds of change: The Manitoba school improvement program.* Toronto: The Walter and Duncan Gordon Charitable Foundation.

Wohlstetter, P. (1995). Getting school-based management right: What works and what doesn't. *Phi Delta Kappan, 77*(1), 22-26.

Yoder, N., Badali, B. (1995). *Teacher leadership: Evolving roles for teachers, evolving roles for the Danforth Foundation.* St. Louis, MO: A Report to the Danforth Foundation.

About the Author

Michael G. Fullan is Dean of Education, University of Toronto, 371 Bloor Street West, Toronto, Ontario Canada M5S 2R7, (416) 978-3223, (416) 971-2293 fax, (e-mail: michael_fullan@tednet.oise.utoronto.ca).

Michael G. Fullan received his Ph.D. in sociology from the University of Toronto in 1969. He spent a number of years conducting research, graduate teaching, and in-service work on educational change at the Ontario Institute for Studies in Education, where he completed a term as Assistant Director (Academic) in 1987. Professor Fullan has participated as researcher, consultant, trainer, and policy advisor on a wide range of educational projects with school systems, teachers' federations, research and development institutes, universities, and government agencies in Canada and internationally, and has written extensively on the topic of educational reform. Since joining the University of Toronto as Dean of Education in 1988 he has been involved in major innovations in teacher education and school improvement. In 1990 he became the first recipient of The Annual Award of Excellence of the Canadian Association for Teacher Educators.

Chapter

4

The Principal's Role and Staff Development

Jim LaPlant

The crescendo of voices shouting for school improvement, reform, restructuring, reengineering, reinventing, or whatever term is used to denote change continues to increase unabated. Staff development as an improvement enterprise has come a long way, but a sense of frustration persists. Incremental improvement has proven insufficient for significant change.

One key to a major breakthrough is the often-neglected role of the school principal. Where school improvement efforts succeed, the principal is frequently praised. Where school improvement efforts fail, the principal is viewed as a blocker. But seldom have we examined the role of the principal in professional development in a manner that would dramatically change the principalship and stimulate a much-needed "breakout" from the current paradigm box. The challenge to reinvent educational systems calls for new thinking.

Some reformers call for schools without a principal or argue that the principal role should return to that of principal-teacher. The present culture of the school is so embedded that real restructuring will require a reinvention of schooling. The principal's role will not just disappear, as reformers who organized innovative schools in the 1960s and 1970s without principals soon learned; people in those settings ended up doing the same administrivia functions. Rather than eliminating the principal, school communities need to dramatically alter relationships of all players in the school—starting with the role of the principal.

Louis V. Gerstner, Jr., chair and chief executive officer of IBM, blames the failure of schools to respond to new conditions on the lack of a mechanism for self-renewal. It is not that schools have gotten worse; they have simply not changed as societal conditions changed. Gerstner advocates the popular solution of making the schools susceptible to market forces. In this scenario, schools that do not improve would lose their customers and hence would go out of existence. Restructuring in Gerstner's perspective requires fundamental changes in the relation-

ships within an organization and between the organization and its customers (Gerstner, 1995).

Today's challenge is to change not only the structure of educational institutions but also the culture of the organization. Changing the culture is more difficult than changing the structure of the organization because it requires reinventing schooling as it relates to learning. Principals must work with their colleagues, staff, and community to reinvent the learning environment to meet the demands of the 21st Century. The term learning environment denotes a new arrangement for learning to replace the concept of school as organization. We do not know yet what it will look like because we will be inventing and constructing this new arrangement, so the term "learning environment" will be used as a place holder for that which is to be invented.

We can posit two realities of the new learning environment, however. The first is that staff development will become more job-embedded. What now passes for staff development off-site generally fails to get implemented when the teacher returns to the work site. The problem lies not in the individual's enthusiasm for making the desired change but in the culture of the work site that promotes stability. Consequently, staff development in the new learning environment will occur on-site and will include attention to changing the culture so that it will support the new learning.

Principals must work with their colleagues, staff, and community to reinvent the learning environment to meet the demands of the 21st Century.

The second reality of the new learning environment is that adults will model the kind of continuous, life-long learning that they desire to promote in students. "Do as I do" has to replace "Do as I say," so that students have daily experience with models of adults examining their own knowledge and practice and making important changes.

This chapter presents a rationale for reinventing the place called school and discusses the functions of the principal related to this reinvention, as well as the relationship of these functions to community, parents, staff development efforts, teachers, and students. Key ideas used in defining a new role for principals will be Spark's (1994) paradigm shift for staff development and Fullan's conceptualization of the teacher-leader (Fullan, 1996).

In Chapter One, Sparks identifies three powerful ideas currently shaping the future of education: results-driven education, systems thinking, and constructivism. He articulates

the shifts in staff development essential to creating learning communities in which everyone— students, teachers, principals, and support staff—is both a learner and teacher. The National Staff Development Council's mission statement clearly reaffirms student learning as the center of staff development (Sparks, 1995). Key to transforming schools from places of teaching to places of learning are new roles, for not only teachers, but for all engaged in the learning venture.

NSDC is not alone in advocating a change in roles for teachers. Shanker (1995) points out, based upon Organization for Economic Cooperation and Development data, that United States teachers teach more hours per year in fewer days of work than teachers in many industrialized nations whose test scores rival if not surpass the scores of U.S. students. For example, the average number of teaching hours for a U.S. primary teacher are 1093 hours in a 180-day contract compared with Germany's primary teachers who teach 790 hours in a 225-day contract. Shanker notes that restructuring the work of the teacher may be more important than adding to the length of the contract. Teachers need time to talk, learn, and create new learning environments for their students who may not be succeeding as desired. Action-research and problem solving require time.

> Staff development will become more job-embedded. What now passes for staff development off-site generally fails to get implemented when the teacher returns to the work site.

Ann Lieberman (1995) provides a conception of staff development in which teachers assume new roles in transforming schools into learning organizations, and in the process they become learners in much the same way as they wish their students would. Schools become places where teachers have opportunities to discuss, think about, try out, and perfect new practices. Lieberman argues that such a change in the notion of professional development will cause significant and lasting school change. What Lieberman does not discuss is how to create the environment conducive to this new conceptualization of professional learning. What roles must leadership play if Lieberman's notion is to become more than just another good idea that is abandoned in frustration?

Michael Fullan (1997) also presents a conceptual model for a strong teacher-leader and puts

his faith in individual and small-group action as the route to institutional change. Fullan says that schools will need others, including administrators, but that strong teachers must help lead the way.

This chapter describes some changes necessary in the principal's role to enable the success of strong teacher-leaders.

The Shift to a Community Perspective

Large organizations are rapidly becoming the dinosaurs of the late 20th century. One needs only to look at the current difficulties of large organizations such as unions, state departments of education, urban school systems, corporations, and state and federal government bureaucracies as they struggle to respond to new demands. The move in these settings is toward reinventing organizational units that are more responsive to the customers or clients, flexible enough to meet new emerging conditions and, most of all, vision-driven. W. Edwards Deming is often quoted as stating that 85 percent to 92 percent of the problems in organizations are the fault of the system, not the people in the organizations.

The reinvention of school cannot be done without changing from the perspective of the school as organization to that of *the learning environment as a community system.* The local school community is the appropriate unit for the reinvention of learning environment because parents and community members are most vitally concerned with the results of their school. They are immediate receivers of the service provided by the school or school system. Shifting the focus to the community to reinvent the learning environment means that parents and community agencies are part of the learning environment and not just passive receivers of the school's outputs.

Another reason for selecting the close-up community system as a focus is that members of a results-driven learning environment identified by Sparks need to have a common mind-set around desired results. This is in sharp contrast to hoping that some larger entity such as the Department of Education, state regulatory agencies, or even school districts can create and enforce an accountability system that works effectively and efficiently.

> Adults will model the kind of continuous, life-long learning that they desire to promote in students.

If we accept the local school community as the unit of change, we immediately confront the problem of local constituencies' lack of agreement regarding desired results. Larry Lezotte (1995) reports that about 90 percent of school districts today have no

consensus about what they want students to know, do, and be disposed to do. One hypothesis for this condition is that communities have not been meaningful partners in determining the desired results and hence lack a feeling of ownership of the goals.

> The reinvention of school cannot be done without changing from the perspective of the school as organization to that of *the learning environment as a community system.*

The local community needs to be included in determining which desired results will drive the efforts of teacher-leaders. Further, the involvement of community in creating the learning environment of the future needs to start from the premise that what is to be done and how to do it is not already predetermined. Everything is up for examination, including the concept of school, the roles of all who might engage the learner, and the roles of those who assist those engaged with the learner.

Assumptions About Learning

The following four assumptions about reconceptualizing schools into learning communities suggest changes necessary in the role of the principal.

1. ***The school is only one agency concerned with the learning of children.*** Parents, churches, public agencies such as libraries, and social agencies are all concerned with the upbringing and welfare of the young. Each segment operates in its own sphere and does not collaborate with the others, except as demanded. In most situations, a common vision of the results desired for every child in the community is vague or nonexistent. It is essential that school people take a facilitative leadership role to develop a common ground or vision about the desired results and the processes by which youth will become learners.

2. ***Learning is the job of learners.*** Schlechty (1990) and Sizer (1992) have advocated that students as learners do the work of the schools as opposed to the teachers doing the work of the organization. In fact, the primary work of all would-be learners—students, teachers, parents, administrators and others—is to build knowledge.

When learners are engaged with meaningful questions, they can interact with their environment to construct necessary knowledge and meanings. Accepting this premise results in abandoning old ways and developing new functions for teachers and principals. It becomes teachers' responsibility to create an environment conducive to student learning.

Principals have responsibility for creating an environment conducive to teacher learning.

3. ***The teacher leadership role will redefine professionalism.*** Teachers and principals are not cogs in a machine bureaucracy. There is a continually expanding body of knowledge regarding teaching-learn-

ing, collegiality, context, and continuous learning. Teachers must become true professionals in these domains. Not only is it essential that they become experts about what teachers know and do, but also that they learn how to construct new knowledge from their experiences as teacher-leaders. As needs of students and parents change with societal changes, teachers must create appropriate learning environments to achieve the newly emerging and agreed upon results.

4. ***The principal's role is pivotal and cannot be ignored or skirted.*** One reason that the principal's position is pivotal to the school culture is the deference, earned or not, granted to the principals by others based upon their experiences. The strong cultural experience that students, teachers, parents, and community members have had with the role of principal will continue to affect their attitudes until changes occur in those attitudes as they participate in the restructuring effort. Efforts to reform the profession without addressing the role of the principal will ultimately fail. More importantly, the principal is uniquely placed to serve as the lever for fundamental change through assuming new functions.

The concept of leadership based upon the great person theory or hierarchical authority must give way to a new conceptualization of the principal's role as facilitator, community-builder, leader of teacher-leaders, and leader of learners.

The concept of leadership based upon the great person theory or hierarchical authority must give way to a new conceptualization of the principal's role as facilitator, community-builder, leader of teacher-leaders, and leader of learners. While the facilitator role will require process skills, the principal will be more than a process person. The principal will be a stimulant, a questioner, a visionary, a keeper of the dreams, a stretcher of the system, a constant learner, and probably many roles yet to be discovered.

New Roles Require New Skills and Knowledge

Using the broadened perspective of the community as the focus for reinventing the learning environment and the assumptions just articulated, three primary functions of the principal emerge that are likely require new skills and knowledge. Equally important are new relationships between professional development leaders and the principal. A short description of the rationale for each function along with some development needs follows.

1. ***The Principal as a Community Builder.*** A crucial aspect of the principal's role in the proposed reinvented learning environment is working with the community to discover common ground regarding what makes a learned student. This new function is difficult, messy, and unclear, particularly as one attempts to move from a mechanistic model with its emphasis on control and order toward a community model that embraces democracy as a way of life. A clear sense of objectives and a shared perspective are essential if schools are to be reinvented.

Local communities must do more than complain about imposed standards set by legislative mandate. As customers, they have the biggest stake in the results, and responsibility to be clear on desired results accompanies that interest. Discovering the community's vision and defining results are as much a process of building community as agreeing on some written strategic plan. Community building is an ongoing process since societal conditions continually change.

The principal needs to become the educational spokesperson in the community-building function. This will be an active, collaborative role in which the principal assists community leaders in discovering and clarifying their vision of desired results, creating partnerships for the reinvented learning environment, and engaging in a process of continuous improvement. In areas where facilitators of community building are available, the principal will join the team as an educational stakeholder. In situations where other facilitative leadership is not active, the principal may become a lead facilitator in the community-building process.

Changing demographics and multicultural diversity raise many issues regarding community building and the role of the school in moving toward democracy. We pay homage to democratic ideals, but it is not easy to operate schools as democracies. Beane and Apple (1995) identified the conditions for the democratic way of life. Among such conditions are the following:

- The open flow of ideas, regardless of their popularity, that enables people to be as fully informed as possible.
- Faith in the individual and collective capacity of people to create the possibilities for resolving problems.
- The use of critical reflecting and analysis to evaluate ideas, problems, and policies.
- Concern for the welfare of others and the common good.

> Facilitating quality and being an intellectual conscience will require new perspectives, knowledge, and skills.

• Concern for the dignity and rights of individuals and minorities.
• An understanding that democracy is not so much an ideal to be pursued as an idealized set of values that we must live and that must guide our life as people.
• The organization of social institutions to promote and extend the democratic way of life. (p. 7)

Early in the 20th Century, Dewey (1916) said if people are to secure and maintain a democratic way of life, they must have opportunities to learn what that way of life means and how they might live it. A challenge for the principal is to facilitate the above conditions both in the community and in the school as a learning place. Our future citizens need to experience these democratic ideals in the learning environment and see them in operation in the community if they are to be able to live in a democratic society in the future.

Principals will need facilitation skills, information processing and communication skills, techniques to help stakeholders discover the vision field, and the ability to keep the whole picture in focus. Wheatley (1993) provides some insights in her examination of leadership and the new science. She recommends that leaders:
• accept chaos as an essential process by which natural systems, including organizations renew and vitalize themselves;
• share information as the primary organization force in any organization;
• develop the rich diversity of relationships that are all around us to energize our teams; and
• embrace vision as an invisible field that can enable us to recreate our workplaces and our world.

> Principals need assistance from staff development experts to help build their capacity to make sense of experiences, construct new meanings, understand data, engage in action research, and address unknown roadblocks in developing community.

An interesting aspect of this partnership with the community is that when groups of people come together to learn how to reinvent schools, they will quickly recognize that the individual parents and students are relatively temporary participants compared with professionals who may be in the school system for a career that spans generations of students. This condition makes it imperative that community building becomes a continuous process to adapt to the ever-changing individual clientele.

Another implication of this partnership affects the career of the princi-

Principals will exercise professional development leadership in their positions when staff development becomes job-embedded. Principals need to facilitate staff development and organization development in the reinvention process.

pal. The principal who takes on the community-building function is no longer just an interchangeable part of the organization—the principal becomes a long-term partner in the community. This may mean living in the community and becoming seen as person, not just the principal. The community might call upon the principal to play other roles as a valued community member.

2. ***The Principal as a Principal-Staff Developer.*** Accepting the conceptualization of the teacher-leader as presented by Michael Fullan, the principal recognizes the professional nature of the teacher-leader role and takes responsibility for creating the learning environment in which teachers can perfect their roles.

The principal will become more than a cog in the machine, more than a bureaucrat. He or she will be a contributor to the intellectual life of the community and the immediate learning environment for teachers, staff, and students. Teachers as professionals have a responsibility to become continuous learners in the teacher-leadership role as they work with students to achieve the results conceived and expressed by the community of parents, teachers, business, and students where appropriate.

Likewise, the principal creates a learning environment that enables teachers to perform their function consistent with the basic principles agreed upon by the community at large. No one can do it alone. Principals help teachers in the development of a collaborative work culture necessary to change the norms and practices in the entire school and to reinvent the learning environment.

The idea of developing a new learning environment through staff development is not foreign. DuFour and Berkey (1995) make 10 suggestions for principals who promote organization development by focusing on professional growth of staff. They are:

- Create consensus on the school you are trying to become.
- Identify, promote, and protect shared values.
- Monitor the crucial elements of the school improvement effort.
- Ensure systematic collaboration throughout the school.
- Encourage experimentation.
- Model a commitment to professional growth.
- Provide one-on-one staff development.
- Provide staff development programs that are purposeful and research based.

• Promote individual and organizational self-efficacy.
• Stay the course. (p. 3)

Most importantly, promoting professional growth among teachers requires the principal to model continuous learning, just as teachers are asked to be models of continuous learning for their students. The principal must be—and must be seen to be—the principal learner in the school.

3. ***The Principal as a Quality Facilitator.*** In a comprehensive systems approach, someone needs to maintain the focus on the student. Whereas many children will have parent advocates, others will not. Every child must receive the appropriate learning environment including necessary resources.

The principal must detect the extent to which current practices are effective and identify which practices need to be studied and/or reinvented based upon the knowledge base that is available. When an operation is detrimental to a child, the principal needs to put the child first and then cause reexamination of the principle. This monitoring will help both the community and school improve their respective performance for the benefit of the child.

While every actor in the learning environment has responsibility to be a learner, someone in the system needs to assimilate the results-data of the learning, constantly look for new intellectual capital to help the community, and ponder the philosophical and practical issues of the learning community. Someone needs to look continually at the larger systems, interpret policies from the state and federal agencies, and analyze data regarding how the larger country is doing and consider its relation to the local community. Principals can accomplish this function at the pivot between the community and school.

This does not mean that the principal becomes the sole decision maker, nor sole observer of issues. It does mean that it is the principal's duty to stimulate community examinations of such issues, data, and problems affecting the learning community. This is part of being keeper of the dream, but it is not a static dream—it is ever-changing. As the context changes, new knowledge becomes available, and the results of current operations reveal improvement issues. The principal needs to keep the community learning and, to do that, the principal must be a consummate learner. Principals have to become the model implementor of constructivist learning by making sense of what is occurring.

Facilitating quality and being an intellectual conscience will require new perspectives, knowledge, and skills. It is difficult even to imagine this function in operation. The ombudsperson role is a starting point for consideration. However, the role requires more than making

existing structures work for the benefit of the child; it includes stimulating new ideas, raising difficult questions, and clarifying societal issues, as well as keeping the dream and continually reinventing it at the same time. Accepting the quality facilitator role will cause the eminence of the principal's position to be derived from his or her ability to influence and lead the community in a continuous learning process, and not from hierarchical authority of the past.

New Relationships with Staff Development

Principals need support in their new role from people who can provide not only moral support and specific skill development but also an environment for the intellectual development of principals. Principals need assistance from staff development experts to help build their capacity to make sense of experiences, construct new meanings, understand data, engage in action research, and address unknown roadblocks in developing community.

Just as principals serve the function of creating the learning environment for teachers-as-learners as they fulfill the conceptualization of teacher-leader, staff developers have an analogous function with principals. Principals need their own learning environment in which to construct their new roles of facilitating community building, working collaboratively with teacher-leaders, and serving as an intellectual conscience of the school community. Principals cannot reinvent this new role in a vacuum. Staff developers can support, stimulate, and create a learning environment enabling principals to succeed in the reinvented learning environment.

The challenge is to develop the conditions conducive to teacher-leader development.

No one has an easy answer about how to change the school into a learning environment which continually renews itself for the benefit of children. This change means moving from a nonintellectual, not particularly healthy organization to a vibrant, reflective organization focusing on the learning needs and results of the learners. Teacher-leader development will only occur in the learning environment. The challenge is to develop the conditions conducive to teacher-leader development.

Many principals know little about staff development. Staff development efforts in the past have sometimes bypassed the principal. Staff developers have always asked for support from administrators, but support in the learning environment means more than just moral or financial support; it means active

engagement in the learning process with the other players.

Instead of working around the principal, staff developers need to capitalize on the principal's position as a point of leverage. If staff developers adopt the notion of leverage rather than seeing the role as a block in the way, they will pave the way for long-term meaningful change. They will multiply their success many times when the principal becomes an ally in the improvement effort.

Principals will exercise professional development leadership in their positions when staff development becomes job-embedded. Principals need to facilitate staff development and organization development in the reinvention process. However, principals cannot do it in isolation. Neither can staff developers. The staff development office cannot become large enough to deal with the constant demand of the individuals in the school site as they are engaged in the learning process. The leverage point of the principal as a staff developer is crucial to making a difference.

The principal needs to be well grounded in sharing decisions (community building), group facilitation skills, action research and research-based practices, organization development, and result-based staff development. What is good for the student is also essential for the other learners (teacher, staff, and community people) in the community. Staff developers can leverage their impact through working with principals to reinvent both the learning environment and the principal's role to fulfill the proposed functions. The fun and challenge are in the future.

References

Beane, J.A., & Apple, M.W. (1995). The case for democratic schools. In M.W. Apple & J.A. Beane (Eds.), *Democratic schools* (pp 1-25). Alexandria, VA: Association for Supervision and Curriculum Development.

Dewey, J. (1916). *Democracy and education.* New York: Macmillan.

DuFour, R., & Berkey, T. (1995). The principal as staff developer. *Journal of Staff Development, 16*(4), 2-6.

Fullan, M. (1997). Broadening the concept of teacher leadership. In S.D. Caldwell (Ed.), *Professional development in learning-centered schools.* Oxford, OH: National Staff Development Council.

Gerstner, L.V. Jr. (1995). *Reinventing education: Entrepreneurship in America's public schools.* New York: Plume/Penguin.

Lezotte, L. (1994, Sept.). Wanted immediately: Educational architects. *The Developer* (Newsletter published by NSDC), p. 3.

Lieberman, A. (1995). Practices that support teacher development: Transforming conceptions of professional learning. *Phi Delta Kappan, 76*(8), 591-596.

Schlechty, P.C. (1990). *Schools for the 21st Century: Leadership imperatives for educational reform.* San Francisco: Jossey-Bass Publishers.

Shanker, A. (1995, Oct.). Less is more. *The Developer* (Newsletter published by NSDC), p. 3.

Sizer, T.R. (1992). *Horace's school: Redesigning the American high school.* Boston: Houghton Mifflin.

Sparks, D. (1994). A paradigm shift in staff development. *Journal of Staff Development, 15*(4), 26-29.

Sparks, D. (1995, Sept). NSDC's mission put students at the center of staff development. *The Developer* (Newsletter published by NSDC), p. 2.

Wheatley, M. (1993). *Leadership and the new science.* Video distributed by CRM Films. (2215 Fareday Ave., Carlsbad, CA 92008).

About the Author

Jim LaPlant is program associate, (I|D|E|A|) Institute for Development of Educational Activities, Dayton, OH and professor emeritus, University of Cincinnati, Cincinnati, OH. He resides at 1054 Ironstone Dr., Cincinnati, OH 45240-2312, (513) 541-4866, (e-mail: laplanjc@uc.edu).

After 10 years as a principal and superintendent in Minnesota and Wisconsin, Jim LaPlant, received his Ph.D. from the University of Wisconsin-Madison and joined the faculty of George Peabody College for Teachers in Nashville, Tennessee. In January 1995, he retired from the University of Cincinnati after 26 years, during which time he served as department head three different periods totaling 13 years. While on leave from the University of Cincinnati in 1978-80, he developed the I|D|E|A| Principals' Inservice Program, a professional development program utilizing collegial support groups of principals working with a trained facilitator to improve their individual professional skills and their ability to lead school improvement efforts. More than 5,000 principals in 28 states, Australia, and Canada have taken part in the program.

Chapter

5

New Roles for Central Office Administration in School-Based Change and Staff Development

Fred H. Wood

Since the late 1960s, educators have been engaged in efforts to decentralize decisions about how to improve teaching and learning in our schools. Throughout most of the 1970s and 1980s efforts were focused on the school and how to implement school-based improvement programs. The emphasis was on developing systematic processes that could be used by teachers and administrators to identify needed improvements and to provide appropriate inservice training to implement those improvements.

As districts attempted to decentralize decisions about improved practice to individual schools, educators searched for and designed school-improvement processes. Typically, these processes involved teachers, principals, parents and others in the community concerned about the effectiveness of their school in decisions related to improvement. During this time, procedures were developed that enabled schools to set improvement goals, develop short- and long-range plans, plan and conduct effective inservice programs, implement specific changes in professional practices within the school and classrooms, and monitor to ensure that new practices remained in place (Wood, 1989).

Over the last two decades, more and more school districts have identified and used effective systematic processes for implementing school-based improvement. However, as schools successfully used these processes, central office personnel began to realize that they were not prepared to function in a system where decisions about change were made at the school site. While district administrators verbally supported and even rewarded schools who were making decisions and implementing improvements, they continued to lay down districtwide program mandates and operate as they had prior to their efforts to decentralize (Asayesh, 1994; Bimber, 1994).

As the result of district-level administrators' involvement with decentralized decision making and school-based improvement, they discovered the need to rethink their roles (Murphy, 1991). Many

district leaders adopted site-based improvements and seemed to assume that simply moving decisions about improvements to the school was enough to make significant changes in professional practices. As most now recognize, this was a faulty assumption. Not only do the teachers and principals need to change their roles to make school-based improvements possible, so do central officer administrators to support decentralized decisions about change in practice (Asayesh, 1994; Odden & Odden, 1994).

If school-based improvement is to succeed, the superintendent and other district administrators must learn new ways of doing business. Few central office administrators have had any preparation for their new responsibilities in decentralized decision making and change (Caldwell & Wood, 1988; Sullivan, 1995).

Since it is quite likely that the move to decentralize and share decision making about change in schools will continue well into the Twenty-first Century (Wood, Killian, McQuarrie, & Thompson, 1993), it is important for those involved with staff development to understand the new roles of central office administrators. In addition, it is imperative that staff developers recognize that most of the preparation of the district leadership for these roles will be delivered through inservice education, not formal university courses.

This chapter describes the new roles and responsibilities for districtwide (central office) administrators who are in districts that are implementing systematic school-based change. For school improvement to function successfully within a district, it is important for the central office leadership to create an environment and conditions that are supportive of decentralized change and site-based, shared decision making. This requires that district administrators adopt new roles which define their responsibilities for creating a context and a support system within which school-based improvement can be implemented.

Many district leaders adopted site-based improvements and seemed to assume that simply moving decisions about improvements to the school was enough to make significant changes in professional practices. As most now recognize, this was a faulty assumption.

This examination of new responsibilities for district administrators in decentralized change and improvement will begin with a discussion of the roles that enable schools to successfully implement systematic school improvement. Once these "enabling" roles have

been reviewed, the behaviors that central office administrators should use to support and facilitate school faculty as they move through the school improvement process will be examined. After the enabling roles and facilitating behaviors are presented, the implications of this information for staff developers are identified and discussed.

If school-based improvement is to succeed, the superintendent and other district administrators must learn new ways of doing business.

Enabling Roles

Based upon the current literature and best practice, enabling roles of central office administrators are identified in this section, and information about what educators know about each role are outlined. While these roles are presented in a particular order, this does not imply any priority, sequence, or degree of importance. In fact, the role listed last may be the most important for successful implementation of school-based improvement. It is probably more appropriate to indicate that all of these roles are important and essential to successful decentralized improvement efforts in a district and all are interdependent and overlap.

1. ***Provide a district long-range plan which serves as a context for the individual school improvement plans.*** This district plan should be developed collaboratively by the school board, district administrators, principals, teachers, and parents and other community representatives. It establishes a district vision and identifies goals and procedures for improved teaching and learning over three to five years. It provides direction and purposes for the district within which schools operate as they become involved in school-based improvement; establishes strategic thinking among administrators within the district; and identifies expectations related to improvement and the school's roles in achieving desired goals (Diegmueller, 1991; Fullan, 1994; Killion & Harrison, 1990; Odden & Odden, 1994).

2. ***Identify at least one systematic, research-based process that schools will use to plan and implement school improvement.*** This process is used by all district schools as they move through planning and implementation of improvement. It defines the roles of the decision making groups in the school and limits, if any, on their responsibilities and options; the specific activities and tasks to be completed; and the degree of financial flexibility within the school budget to achieve the school's improvement goals and plans. Such processes address what the schools will do in each of the five stages of school improvement—readiness, planning, train-

ing, implementation, and maintenance (Wood, Killian, McQuarrie, & Thompson, 1993). The process also identifies who should be involved in the decision making; how the district's goals are to be addressed; the format, criteria, and process for approval of school improvement plans; and the support and coordination responsibilities of the central office (Caldwell & Wood, 1988; Conley, 1993; Sullivan, 1995; Wood, Caldwell, & Thompson, 1986).

3. ***Establish district policies and procedures that support shared decision making, site-based management, school-based improvement, and differences between and among district schools.*** These policies and procedures should recognize the importance of shared decision making, move decisions related to curriculum and instruction to the school faculty, delegate more authority for budget and personnel decisions to the school, and allow the school control over decisions about improvement goals and plans. It is particularly important that district policies and procedures encourage school initiative through greater freedom to make decisions at the school level in the areas curriculum, instruction, personnel, budget, schedules, and use of facilities (Bimber, 1994; Killion & Harrison, 1990; O'Brien & Reed, 1994; Odden & Odden, 1994; Watson, 1994).

The district policies and procedures related to school-based improvement should ensure that schools use the district's approved systematic process(es); clearly identify which decisions are made at the school and which at the district level; and permit reallocation within the school's budget to achieve its improvement goals and plans. Policies are also needed related to the development and approval of the school's written plan. This should include identification of any required goals(s) that must be addressed by all schools, and the criteria and procedures that will be used by the district to review and approve school plans.

While policies and procedures should be written in ways that encourage school initiated change, they also should help schools focus on a limited number of changes so faculty do not become over whelmed by pursuing too many goals and program changes at any one time (Bimber, 1993; Caldwell & Wood, 1988; Fullan, 1994; Killion & Harrison, 1990; Murphy, 1991; O'Brien & Reed, 1994; Wood, Caldwell, & Thompson, 1986).

The central office also needs to work with the board to establish policy and procedures that enable schools to make improvements even when they are in conflict with the negotiated contract with the teachers' organization, with district policy and procedures, and with state regulations, policies, and procedures. This will

require that the central office, board of education, and teachers' organizations establish procedures for seeking and approving waivers to the teachers contract when it inhibits a desirable improvement that a faculty has decided they need to make in their school. The board of education and central office staff also need to develop policies and procedures that enable schools to seek and obtain waivers to district and/or state policies, regulations, and procedures (Bimber, 1994; Hirsh, 1995; SEDL, 1990).

4. ***Establish a framework for curriculum and instruction in the district.*** This framework is established through the development of student performance standards and goals that are to be achieved through programs implemented in the schools within the district. Schools are held accountable by the district for achieving these outcomes. The individual school faculties decide the best ways to help their students learn what has been defined by the district's learning goals. It is central office leadership and school board's responsibility to involve teachers, parents, community members, and administration in the development of the framework for the district curriculum (Asayesh, 1994; Conley, 1993; Odden & Odden, 1994; OERI, 1993).

This district plan should be developed collaboratively by the school board, district administrators, principals, teachers, and parents and other community representatives. It establishes a district vision and identifies goals and procedures for improved teaching and learning over three to five years.

5. ***Establish a staff development program to assist school planning teams, principals and central office administrators as they plan and implement decentralized change and school improvement.*** Districtwide leadership must view inservice education as a primary means to achieve school-based improvement goals and programs for improved practice. They also need to establish a district wide unit which is responsible for helping their schools plan and deliver inservice to achieve a school's goals.

Training programs in districts that have decentralized the improvement process need to ensure that: there is at least one trained facilitator in each school to guide the faculty through the stages of school improvement; the principals are prepared in

the district's systematic improvement process; and school planning teams have access to the training they need to develop and implement an improvement plan. It is also essential to establish inservice programs for the central office that prepare district administrators to carry out their new roles and responsibilities and to keep them apprised of the most current programs, research, and ideas in education.

Finally, the district needs to establish a cadre of local teachers and administrators who are prepared to provide the inservice learning programs required to implement improvements in the schools (Asayesh, 1994; Bimber, 1993; Caldwell & Wood, 1988; Killion & Harrison, 1990; Melvin, 1991; Wood, Caldwell, & Thompson, 1986).

6. ***Prepare the board of education for and obtain their commitment to school-based improvement.*** It is important that the members of the board of education understand school-based decision making and management and the impact that they have on the central office, principals, schools, faculty, parents, and students. Not only does the school board need to understand, they also need to support school-based improvement. This requires time and training for the board members. School board members need to recognize and be prepared for their new roles.

For example, board members need to collaborate with administrators and teachers to establish and revise policies that support site-based decision making and school improvement; ensure district improvement goals and plans are developed; identify any improvement goals that all schools must address; establish performance expectations for central office administrators that support school-based improvement; monitor progress toward achieving goals; and allocate funds to support the achievement of school and district improvement goals. They also need to become advocates to their publics for decentralization of decisions and school-based change within the district (Asayesh, 1994; Caldwell & Wood, 1988; O'Brien & Reed, 1994; Wood, Caldwell, & Thompson, 1986).

Obviously, it is unlikely that any real movement toward site-based improvement will be possible if the board of education is not given a great deal of attention by the superintendent and his or her staff early in and throughout the district's efforts to implement of school-based improvement.

7. ***Model the desired behaviors for improvement within the central office.*** Here central office administrators involve principals, teachers, and others in the district in shared decision making. They use improvement processes like those employed by the schools to plan and implement improved practice in the central office. The super-

intendent and other districtwide staff reinforce, through their statements and actions, the beliefs, values and practices that are essential to successful school-based improvement.

> It is particularly important that district policies and procedures encourage school initiative through greater freedom to make decisions at the school level in the areas curriculum, instruction, personnel, budget, schedules, and use of facilities.

At the district level, they model team planning and teamwork, flexibility in allocation of budgeted resources, trust in others' abilities to make decisions, and involvement of parents and community members in decisions about the district. They also become involved in training to learn the new skills and practices they need to improve their professional practices.

This modeling of shared decision making, planning for improvement, involvement in inservice education, and use of improvement processes demonstrates to others in the district and community the value and importance central office leadership places on school improvement and increasing the effectiveness of professional practices in the district (Bonsting, 1992; Caldwell & Wood, 1988; Conley, 1993; Killion & Harrison, 1990; SEDL, 1990; Wood, Caldwell, & Thompson, 1986).

8. ***Establish expectations that support successful implementation of school-based improvement.*** In addition to modeling the use of effective school improvement processes, the superintendent and other central office administrators need to make their expectations for school improvement and those involved in the process clear. For example, they need to make it clear to all educators in the district that it is expected that:

- each school will develop a plan that will guide the improvement efforts of the school faculty for three to five years;
- faculty, parents, principals, community leaders and other key stakeholders for each school will be directly involved in identifying and implementing the plan for improvement of curriculum and instruction in each school;
- the principal is responsible for providing leadership in the school improvement process and will be evaluated and rewarded for the implementation of his or her school's improvement plan;
- the principal will be an active participant in his or her school's planning process, inservice for achieving improvement goals, and providing follow-up support to implement changes in teaching and learning in the school; and
- central office administrators will focus their efforts on supporting, assisting, coordinating and serving as a resource as schools plan and implement improved practices (O'Brien &

Reed, 1994; Odden & Odden, 1994; Paden, 1995; Watson, 1994; Wood, Caldwell, & Thompson, 1986; Wood, Killian, McQuarrie, & Thompson, 1993).

9. ***Serve as a public advocate for school-based improvement and decentralized shared decision making.*** The district leadership must be advocates for schools making decisions about budget, curriculum, instruction, personnel, and other areas which are important to enable a faculty and school's stakeholders to plan and implement significant improvement in their school. Not only does the superintendent and his or her staff give verbal support to schools making decisions in these areas, they behave in ways that are consistent with their words.

For example, when requirements of outside agencies or district policies block the school's plan for significant change, district administrators make every effort to eliminate these barriers. As administrators work and talk with school personnel, the board of education, parents, community members and state agencies, it must be clear that they are committed to school-based decisions and improvement (Caldwell & Wood, 1988; O'Brien & Reed, 1994; Wood, Caldwell, & Thompson, 1986).

10. ***Establish a communication network between and among the central office, schools, and community that keeps stake holders informed about implementation and outcomes of school-based improvement.*** Clear and frequent communication is important to successful decentralize change in a district. As schools in a district proceed through their improvement planning and implementation, it is important that information about decisions related to goals, plans, and accomplishments is shared between and among schools at different levels, between feeder schools and between the central office and each school.

Central office administrators need to know what is happening in the schools. They also need to keep schools apprised of the newest practices and research related to teaching and learning. Districtwide administrators also must keep themselves informed about school improvement efforts in their areas of expertise (e.g., curriculum, bilingual education, science, and mathematics) so they can determine how they might be helpful to schools (Asayesh, 1994; Murphy, 1991; O'Brien & Reed, 1994; Paden, 1995; Sullivan, 1995; Wood, Killian, McQuarrie, & Thompson, 1993).

In addition to communications within the district, the central office needs to implement a public information program to inform parents and the community about school improvement. This program should provide information concerning

the rationale for and purpose of school improvement, the positive plans developed by schools', and progress and successful changes as the result of school improvement in the district.

Of course, the district's communication plan will also be supported by and supportive of communication efforts by individual schools to keep their parents and school communities informed of their efforts to improve practice and achievement (Asayesh, 1994; Murphy, 1991; O'Brien & Reed, 1994; Paden, 1995; Sullivan, 1995; Wood, Killian, McQuarrie, & Thompson, 1993).

11. ***Provide and manage district resources to support school-based improvements.*** Without access to resources, it is extremely difficult to bring about changes in the schools. Resources are required for start up planning and ongoing implementation. They take the form of budgeted dollars, time, materials, and people.

Resources may be provided through new additional dollars or through reallocation of existing resources. The district central office must examine its current situation, and determine how the resources needed to implement school-based improvement will be provided. Resources for school-based change are necessary to support the planning teams' activities, ongoing inservice training, implementation activities and maintenance of changed practice in the schools.

These resources are most useful when allocated in the school budget. However, some resources may be managed at the district level when that is the best means of helping all schools in the district pursue and achieve their improvement goals and plans (Caldwell & Wood, 1988; Conley, 1993; Neal, 1991; O'Brien & Reed, 1994; Wood, Caldwell, & Thompson, 1986).

Given the financial limitations facing most districts, it is quite likely that new dollars for improvement efforts will not be available. Therefore, central office administrators will need to reallocate resources within the district and allow greater flexibility in the use of funds allocated in the school's budget. Through giving the school faculty greater control of expenditures, personnel, and budget, and working with schools to help them use their funds to achieve their improvement goals, administrators are more likely to be able to cover the costs of changes in practice (Bimber, 1993; Watson, 1994).

12. ***Monitor and evaluate the district's improvement programs.*** Monitoring includes tracking progress of schools as they go through planning and implementing their school improvement programs. It involves checking to ensure that the district's approved process was followed when goals and plans were developed and implemented. Monitoring also includes systemati-

cally gathering information to determine the progress individual schools have made in implementing the desired changes in practice.

Evaluation, on the other hand, looks at the impact of the changes once they are in place; the impact on the students and others who were involved in the changes. At the district level, the evaluation is focused on the district goals for improved practice and increased student learning. At the school level, this role is focused on helping schools plan and collect data to assess the effectiveness of the improvement activities and program changes on the faculties' professional behavior and students' achievement (Asayesh, 1994; Bimber, 1993; Caldwell & Wood, 1988; Fullan, 1994; Joyce, 1991; Joyce, Wolf, & Calhoun, 1993; Odden & Odden, 1994).

13. ***Serve as facilitator and support for school-based improvement and shared decision making.*** Central office administrators need to shift from being "the" decision makers and enforcers of policy to being facilitators, helpers, and mediators. Their major responsibility is to support site-based efforts to improve teaching and learning. They are more concerned that important improvements are being made in district schools than whether their personal biases and programs are being implemented. The expectation is established that the central office administrators are there to support, assist, coordinate and help principals and teachers make changes in the school.

Central office personnel are designated as resource personnel; they provide technical assistance to the schools and on-call consultant help to school planning teams. They also assist with the resolution of conflicts between units within the school and school district. They keep abreast of and share information about new educational research and practices and encourage schools to try out new ways of doing things. They facilitate change and improvement and help keep district personnel aware of the newest and most promising practices related to effective schooling (Asayesh, 1994; Caldwell & Wood, 1988; Conley, 1993; Joyce, Wolf, & Calhoun, 1993; O'Brien & Reed, 1994; OERI, 1993; Paden, 1995; Wood, Caldwell, & Thompson, 1986; Wood, Killian, McQuarrie, & Thompson, 1993).

> While policies and procedures should be written in ways that encourage school initiated change, they also should help schools focus on a limited number of changes so faculty do not become over whelmed by pursuing too many goals and program changes at any one time.

Relationship Between and Among Roles

While these roles have been discussed separately, as noted earlier, they are related and overlap. For example, the district strategic plan typically describes how the schools will achieve the district's improvement goals, identifies the specific school improvement process and programs that schools in a district will use, clarifies expectations for schools to implement the district curriculum framework, and describes the responsibilities of the district-level administrator in facilitating school-based decision making and change.

Another example of the interrelatedness of these enabling roles relates to the revision of district policies and procedures to support decentralized school-based improvement. Clearly, district policies and procedures need to address the use of a systematic school decision and improvement process; expectations related to achieving the learning outcomes defined by the district curriculum framework; commitments of the district to shared decision making, school-based improvement, and site-based management; responsibilities of the central office to facilitate and assist schools as they attempt to improve current practice; and flexibility school faculty have in decision about their budget, curriculum, instruction, and personnel.

> It is also essential to establish inservice programs for the central office that prepare district administrators to carry out their new roles and responsibilities and to keep them apprised of the most current programs, research, and ideas in education.

Central Office Involvement in Facilitating School-Based Improvement

While these enabling roles are all important to establishing a context within which schools can implement school-based improvement, probably the most crucial is the district administrators' direct involvement in facilitating and supporting school-based improvement in schools. Central office must become directly involved with schools as the principal and teachers move through the improvement process. Their active support and assistance to and within schools during the five stages of the improvement process are necessary and essential to successful planning and implementation of important changes in practice within the schools (Asayesh, 1994; Caldwell & Wood, 1988; Wood,

Killian, McQuarrie, & Thompson, 1993).

In this section, the facilitating behaviors that central office should provide in the Readiness, Planning, Learning, Implementation, and Maintenance stages of school improvement are discussed. After briefly reviewing what occurs in each stage, the kinds of involvement that are appropriate for central office are presented. The facilitating behaviors described here define more clearly the support responsibilities of the district leadership; they also reveal how the other enabling roles influence what schools can and will do during the improvement process.

Facilitating the Readiness Stage

In the Readiness stage, the principal and others trained to guide school improvement work with the faculty to establish a supportive climate for change and set goals for improvement that have the support of the school's key stakeholders. The focus is on mobilizing broad-based support among teachers, administrators, parents, and community leaders for specific improvements within the school. Here is where the knowledge base is expanded, a vision for the school is developed, school improvement goals are established, and changes in curriculum, instruction, and other areas of professional practice are selected.

In this stage, a school planning team for improvement is formed; this team works with the faculty and other stakeholders of the school to establish a supportive climate for change and to make decisions about improvement goals and programs. The team consists of teachers, principal, central office administrators, parents, community leaders, and sometimes students.

The planning team spends time developing their ability to work effectively as a group and to solve problems, expands their knowledge base concerning the newest research and best practices, and then examines possible options for improvement. Working with the faculty, they develop a vision for what they want teaching and learning to be like in their school five-to-ten years in the future. Next, they examine what is being done in their school and in other schools and what has been described in the literature in order to identify programs and practices that would enable their school to become more like their ideal, their vision. Finally, the planning team works with the faculty to select and obtain commitment to improvement goals and specific changes in current practice (Wood, 1989; Wood, Killian, McQuarrie, & Thompson, 1993).

This is an important stage in the improvement process. Since the decisions made here determine what will happen in each of the subsequent stages, it is not surprising then that this is also a

stage where the central office needs to be actively involved in supporting and facilitating the improvement process. There are a number of important facilitating behaviors for the central office in this stage related to providing necessary information and training prior to starting the process, ensuring that certain things are considered in establishing the school planning team and improvement goals, and becoming directly involved in the readiness activities.

For example, prior to initiating Readiness activities, central office administrators need to provide inservice for the school principals, teachers, and school planning teams to ensure that they understand the district policies and procedures related to school improvement. This includes helping those who will be responsible for planning and implementing changes in the school to understand the approved district process and givens established by the board related to the process or goals, and clarifying which decisions are made at the school and which at the district level.

It is here that those involved in the process are informed of available resources for initiating and implementing their plans and the degree of flexibility that the school has in making decisions about curriculum, instruction, the school budget, personnel, schedules, and other issues. It is also at this time that expectations are publicly stated for principals to provide leadership in the schools improvement process and that faculty and other stakeholders are to be actively involved in the decisions about selecting, planning, and implementing improvements in the school (Caldwell & Wood, 1988; Wood, Caldwell, & Thompson, 1986; Wood, Killian, McQuarrie, & Thompson, 1993).

> The superintendent and other districtwide staff reinforce, through their statements and actions, the beliefs, values and practices that are essential to successful school-based improvement.

District administrators also work directly with the school's principal and trained facilitator(s) to ensure that the planning team has a broad representation of stake holder. This includes more than just teachers and the principal in a school, it includes all who have or should have concern and interests in the quality of the educational program.

This suggests that in addition to the faculty, the planning team ought to include parents, current or recently graduated students, and community representatives from the churches, community agencies, area businesses, and any other groups that

might be considered important to the success of any improvement effort. It is not the responsibility of district administrators to determine who will be on the planning groups, but it is their responsibility to ensure the stake holder group is expanded so that all voices are heard when improvement goals and plans are developed (Bonsting, 1992; O'Brien & Reed, 1994; Watson, 1994; Wood, 1989).

Central office administrators should also provide direct assistance to the school as they go through Readiness (and the other stages of school improvement). This assistance might include providing data about the school related to their current status concerning the district's improvement goals or information requested by the school as they examine various aspects of their program. District administrators serve as on-call assistants who help the school planning team identify possible programs, research, or consultants as they seek to determine which goals and new programs and practices they wish to include in their improvement plan. They might locate funding to enable site visits by teachers, parents, and other stakeholders to districts that are using effective programs that are being considered by the school (Fullan, 1994; Odden & Odden, 1994; Wood, Killian, McQuarrie, & Thompson, 1993).

Central office personnel are viewed as experts who provide technical assistance and support to the school; they seek to help the school planning team and faculty make informed decisions. They may do this by bringing information to the school upon request, by initiating help through the school-improvement facilitator or principal, and/or by actually becoming a full member of a planning team (Joyce, Wolf, & Calhoun, 1993).

The later is certainly consistent with the idea that all key stakeholders ought to be part of a planning team. In addition, participation of a central office administration on the planning team facilitates access to and appropriate use of district resources to support the goal setting and planning process. It also enables the district administrators to experience the process so they truly understand it.

Finally, it assures that someone in the district office can serve as an information resource and advocate for each of the schools involved in the process. There is one caveat related to this involvement: It must be a given that the reason for central office representative on the team is to help, learn, and participate as one member of the team. They are not there to direct, control, or promote only their personnel goals and programs.

Facilitating the Planning Stage

The Planning stage is where the school planning team works with faculty and other stakeholders to determine

how the improvement goals and programs selected in Readiness will be achieved through the Training, Implementation, and Maintenance stages. During this stage, the planning team and faculty identify the specific practices teachers and administrators will be using when their improvements are in place; conduct a needs assessment to determine what the faculty must learn to implement new programs and professional practices; determine the resources that are available to implement any plan they might design; develop a long-range written plan for conducting inservice training and implementing improved practice; and finally, obtain formal approval of this plan from the school faculty and the central office.

The three-to-five year plan that is developed identifies the specific activities and a time line for the first year and a general plan for the remaining years. Typically this plan addresses what will occur during the subsequent stages. It identifies the school's improvement goals and programs, the process and rationale used to select these goals and programs, inservice programs and implementation procedures, strategies for transferring new programs into professional practice, expected outcomes after implementation, monitoring and evaluation activities; and a budget to support the plan (Wood, Killian, McQuarrie, & Thompson, 1993).

Again, for the success of this stage, central office administrators must be actively engaged in supporting the planning team and the school faculty. The key facilitating behaviors for district-leadership during planning include: assisting the principal and planning team collect data; serving as a resource person; determining what the central office will need to do to support implementation of the plan; and ensuring necessary communication with interested parties in the district (O'Brien & Reed, 1994).

During the planning activities in a school, district administrators help the principal and other facilitators collect needs assessment data and identify baseline data so the school can assess progress toward their improvement goals. They also assist the school planning team with the development of the written plan (Wood & Caldwell, 1988).

As the planning team begins to make decisions, central office curriculum and instruction specialists serve as on-call resource persons who use their expertise (in reading, bilingual education, science, etc.) to help the school locate possible inservice programs and consultants. These district administrators assist the school identify resources in and outside the district that might be selected by the school as a means of implementing its improvement goals. They also may assist the school

in locating research and model inservice programs related to improvements that are being considered (Wood, Caldwell, & Thompson, 1986; Wood, Killian, McQuarrie, & Thompson, 1993).

It should be stressed again that these support activities are focused on helping the school planning team make its own decisions by providing information and options. Clearly, one can-not choose what one does not know about. Therefore, the district administrators, either as members of the planning team or as a resource persons, use their expertise to bring the best knowledge and options available so the school staff and other stakeholders can make good, informed decisions during the Planning stage.

Also during this stage, district administrators work with the principal and planning team to identify the ongoing support they will need from the district to enable the school to implement its school improvement plan. This may include assistance in obtaining resources for inservice programs, approval for more flexible use of the school's budget, and waivers from local or state regulation and policies. Once these needs for assistance from the district level are identified, they are included in the written plan.

Communication is another area where central office staff provides support during this stage. They make sure that information about plans in the school are shared with other schools in the district and central office personnel. This enables district schools to share inservice resources when they are pursuing similar goals and inservice activities. It also enables the district administrators to keep informed about what is being done in each school and identify how they might use their expertise to support each school's improvement efforts. It is also important for central office to help schools keep the community informed of their improvement efforts through a systematic parent and public communications system at the district level (Conley, 1993; O'Brien & Reed, 1994; Sullivan, 1995).

> Central office needs to implement a public information program to inform parents and the community about school improvement.

Finally, once the plan is written and approved by the school faculty, it is submitted to the central office administrators and board of education. They in turn review and approve it and then provide the funding to implement the plan. With the approval, the schools turn their attention to implementing their plans (Caldwell & Wood, 1988; Conley, 1993).

Facilitating the Learning Stage

The Learning stage emphasizes helping the school faculty acquire the

skills, knowledge, and attitudes required to implement the professional practices defined in the Readiness and Planning stages. In this stage, those responsible for school improvement select and design effective inservice programs, identify experienced trainers, schedule inservice learning experiences, and insure that the principal and other administrators participate in inservice with teachers.

> District administrators, either as members of the planning team or as resource persons, use their expertise to bring the best knowledge and options available so the school staff and other stakeholders can make good, informed decisions during the Planning stage.

Here the principal and the school committee responsible for inservice establish a schedule and implement inservice learning programs that address the needs of faculty as they seek to achieve their school's improvement goals. Priority is on school, not district goals and programs. District administrators facilitate the planning and delivering of inservice that enables a faculty to achieve school goals (Wood, 1989; Wood, Killian, McQuarrie, & Thompson, 1993).

The facilitating behavior of central office related to this stage occurs at two levels. The first consists of the responsibilities of all district administrators and the second relates to what district-wide staff developers do to support inservice for school improvement. The following briefly describes how all district administrators support inservice growth in the school. The description of the district staff development unit's responsibilities related to Learning and the other stages is presented later in the chapter.

During the Learning stage district administrators assist the principals and planning team in selecting and managing inservice education for the school (Asayesh, 1994). They help those in the school who are responsible for inservice to develop or select and adapt programs, identify inservice leaders, facilitate learning experiences in their area of expertise, and plan and conduct evaluation of inservice programs.

They also assist the school in locating resources to support inservice by allowing schools to control their budget, providing technical assistance, and scheduling time during the work day for teachers to participate in inservice programs. In many situations, central office administrators are the only people involved in the improvement process with the time, power, and expertise to help schools obtain the resources they need to implement effective inservice (Caldwell & Wood, 1988).

The most important thing central office

administrators can do to promote and support adult learning in a school is to participate in the school's inservice programs with principals and teachers. This demonstrates the importance of inservice to the school staff. It enables the district administrators to learn and understand the new practices and programs being implemented in the schools. This participation also allows them to identify the kinds of follow-up support and resources that school personnel may require from the district to implement important changes in practice. Finally, this models that professional growth is valued by the leadership in the district and that change and improvement is important business for everyone.

Finally, district administrators assist the planning team and faculty assess their inservice programs. They may do this themselves if they have the expertise or they may help the school locate others to assist them design, collect, and analyze data. These data are then be used by the school faculty to improve their inservice efforts. As noted several times earlier, the central office staff helps, when asked, and then the school takes responsibility for analyzing and using data in ways that fit its needs and plans (Caldwell & Wood, 1988; Wood, Caldwell, & Thompson, 1986).

Facilitating the Implementation Stage

Implementation is the stage in which what is learned is used in the work setting. It is through this stage that the vision, goals, programs, and practices identified in Readiness become a reality in the school. The major task is to integrate new learnings so that they are used comfortably and automatically (Joyce & Showers, 1983).

To accomplish this, principals, teachers, trainers, and others in the school provide follow-up assistance to ensure this transfer through such things as coaching, supervision, and sharing and problems solving discussion groups. Principals and others encourage those who are implementing what they have learned by recognizing and rewarding them for their efforts and successes.

Principals also give attention in this stage to ensuring that those implementing new programs and practices have adequate resources (e.g., materials, equipment, time, and consultant help) to be successful in their efforts to improve their professional practice (Wood, Killian, McQuarrie & Thompson, 1993).

The facilitating behaviors for district administrators during Implementation focus on helping principals and teachers. This includes working with other district administrators and the school board to eliminate barriers to transferring new practices into the daily activities of the classroom. These barriers might include such things as the lack of personnel, materials, and time.

One the plan is written and approved by the school faculty, it is submitted to the central office administrators and board of education. they in turn review and approve it and then provide the funding to implement the plan.

It might involve them in working with the principal to bring in other district administrators into the school to help teachers solve problems they are having with implementing new instructional practices and curriculum programs. In some schools it requires that the district administrator arrange for the principal and teachers to get additional training so they can carry out their coaching/support activities to ensure others in the building get the assistance they need while they are integrating new practices in their work setting.

During this stage, district administrators may serve as coaches in areas of their expertise; help the principal and planning team monitor progress toward implementation of improvement goals; and assist the school faculty in communicating progress toward improving practice and increasing student learning to parents, the school board, other central office administrators, and the community (Asayesh, 1994; Fullan, 1994; O'Brien & Reed, 1994).

Direct involvement in this stage enables the district leadership to communicate to the principal and others in the school the expectation that implementation of real changes in practice is important. It also allows them to recognize and reward those teachers and principals who are actively engaged in the struggle of improving their own practices and helping others do the same thing.

This includes such things as giving recognition in public and private meetings, having implementors make presentations to others in or outside the district, finding additional resources for professional experiences, extending contracts for summer employment, providing additional time for planning, and employing teachers as peer trainers and coaches (Wood, Killian, McQuarrie, & Thompson, 1993). In addition, they can help identify ways the principal, other teachers, the school board, newspapers, and students can recognize those faculty who are making an effort to improve their professional practices (Odden & Odden, 1994).

Facilitating the Maintenance Stage

The Maintenance stage is focused on monitoring to ensure that once specific improvements in professional practice have been taught, practiced, and are in place, that they continue to be used effectively over time. It is the stage where educators refine and extend their use new research-based practices so that they have maximum impact on

students and are integrated into the rest of the curriculum. Without this attention to monitoring new practices, there is a high probability that they will disappear and teachers and administrators will return to old, more comfortable ways of doing things.

This is also when the school may discover needs for improvements in new areas of the curriculum or instruction. This takes the school back to Readiness and a new journey through these five stages of school improvement. Some of the common types of monitoring include supervision by the principal, peer observation, feedback from students and parents, reviewing classroom material, and videotaping for self assessment (Wood, Killian, McQuarrie, & Thompson, 1993; Wood, Thompson, & Russell, 1981).

In this final stage of school improvement, central office administrators facilitate maintaining changes in practice through such things are helping the faculty monitor changes that have been implemented in the school and classroom, providing ongoing training and follow-up support for new teachers, encouraging expansion and recycling for continuous improvement, and assisting with evaluation of the impact of the new practices.

Central office administrators assist the planning team and principal monitor progress on achieving the school improvement goals. They do this through helping the school collect and interpret data concerning current practice and working with the faculty to ensure that principals and teachers are provided feedback through supervision and coaching.

They also help the faculty and principal use monitoring data to make decisions about actions that the school needs to take to keep things in place and to increase the quality and extent of use of desired practices (Asayesh, 1994; Bimber, 1993; O'Brien & Reed, 1994). In addition to their involvement in monitoring, district administrators assist teachers and the principal in assessing the impact of improvements in programs and instruction on student learning, faculty performance, parental attitudes, and community support of the school (Caldwell & Wood, 1988).

In the Maintenance stage, the district leadership encourages the principal and faculty to expand successful practices to new areas of the school or curriculum, for example, moving cooperative learning from use in social studies classes to other subject area. In addition, it is at this time the schools are asked to consider more possibilities and needs and are encouraged to readdress the Readiness, Planning, Training, and Implementation stages (Wood, Killian, McQuarrie, & Thompson, 1993).

Summary of Facilitating Behaviors Used in the Stages

An analysis of these facilitating behaviors provides some insights into the emphasis that is given to the facilitating role of the central office as schools move through the five stages of school improvement. In Readiness and Planning, considerable attention is given to setting expectations and modelling desired behaviors; communicating policies and procedures; ensuring personnel are trained for successful school improvement; providing and identifying resources; and communicating and coordinating between and among schools, the central office, and the community.

During Training, central office is active in providing support through direct involvement in the inservice process and providing and identifying resources for inservice programs. During Implementation and Maintenance, the facilitating behaviors related to monitoring and evaluation of school improvement are emphasized. It also is clear that the central office is much more active in and with schools during the first two stages of school improvement.

Behaviors which are employed to facilitate the school's work in all five stages include ensuring personnel have training to guide and implement school improvement, monitoring progress toward school improvement goals and plans, ensuring coordination and communication, becoming directly involved in the process within a school, and assisting faculty to obtain resources.

In closing this discussion of roles for the central office, it is important to recognize that all enabling roles are essential for successful implementation of school-based improvement programs. Central office must create conditions within the district that support schools as they plan and implement improved practice. In addition, district administrators need to work directly with schools and help them successfully move through the stages of school improvement.

Implication for Staff Development

With the growing recognition that the central office leadership needs to learn how to carry out their new roles in decentralized, school-based change, inservice programs for district administrators will become a major concern of staff developers. As Wood, Caldwell, and Thompson, (1986) point out:

Since central office administrators are being asked to behave quite differently, special attention should be given to helping them learn to be facilitating of change in schools and supportive rather than directors of what happens. (p. 58)

District staff development will have primary responsibility for prepar-

ing the superintendent and other district administrators for the change from directors of districtwide change to facilitators and supporters of school-based change and improvement. The staff development unit for the district will need to work with the central office and other stakeholders of school improvement to develop a plan for the central office.

This process should involve the central office administrators in the five stages of improvement. The focus of their improvement goals, plans, inservice activities, and implementation should be on preparing district administrators to understand enabling roles and assist schools as they move through the stages of school improvement.

Once the improvement goals and plans for the central office are established, staff developers are responsible for planning and implementing inservice programs and ensuring that follow-up assistance is provided for implementation (Asayesh, 1994; Caldwell & Wood, 1988; Diegmueller, 1991; Murphy, 1991; Wood, Caldwell, & Thompson, 1986).

Carrying Out Their Facilitating Role

In addition to planning and conducting inservice for central office, staff developers need to restructure their activities and learn how to assume their facilitating role in school-based change. The primary responsibility of district staff developers in a decentralized system is to assist schools with planning and implementing inservice that will result in achievement of specific improvements (Killion & Harrison, 1990). Some of the important facilitating responsibilities for staff developers include:

- Providing training to prepare principals and others with the skills and understandings necessary to guide faculty and a planning team through school improvement.
- Assisting in the identification of inservice training programs, and activities that the schools might use to achieve the improvement goals.
- Assisting schools in conducting needs assessments.
- Working collaboratively with principals to plan, deliver, and manage inservice programs for their faculties.
- Keeping the principals and teachers informed of the newest programs and practices related to the district's and their school's vision, goals, and plans.
- Coordinating inservice programs so schools can share training when they have common needs.
- Offering, when appropriate, inservice training at a

> Direct involvement in this stage enables the district leadership to communicate to the principal and others in the school the expectation that implementation of real changes in practice is important.

Central office must create conditions within the district that support schools as they plan and implement improved practice. In addition, district administrators need to work directly with schools and help them successfully move through the stages of school improvement

district level that meets the improvement goals of two or more schools.

- Training local trainers and coaches to support inservice at the school level.
- Assisting the principals with follow-up and coaching so implementation occurs in the work setting.
- Assisting in the evaluation of the effects of inservice training.
- Designing training for new principals and teachers who come into district schools to ensure that improvements made in practice continue even when there is faculty turnover (Asayesh, 1994; Caldwell & Wood, 1988; Fullan, 1994; Killion & Harrison, 1994; Wood, Caldwell, & Thompson, 1986).

A Closing Thought

One of the major shifts in the way educators have thought about change and improvement in schools over the last quarter of a century has been the move from control at the central office to sharing decisions about changes with faculty in individual schools. For the move to decentralization to be successful, educational leaders at all levels must go beyond verbal commitments to site-based management, site-based budgeting, and school-based improvement. District administrators must change the way they carry out their roles and responsibilities as leaders. Educators have been fairly successful in making changes at the school level; now we must change how district level administrators operate to support schools.

This will require a great deal of inservice education and place a considerable load on the shoulders of staff developers. Without the involvement of central office personnel in extensive professional development, it is unlikely that real decentralization of improvement will become a reality.

References

Asayesh, G. (1994). The changing role of central office and its implications for staff development. *Journal of Staff Development, 15*(3), 2-5.

Bimber, B. (1993). *School decentralization: Lessons from the study of bureaucracy.* Santa Monica, CA: Rand.

Bimber, B. (1994). *The decentralization mirage: Comparing decision making arrangements in four high schools.* Santa Monica, CA: Rand.

Bonsting, J.J. (1992). The quality revolution in education. *Educational Leadership, 50*(3), 4-9.

Caldwell, S.D., & Wood, F.H. (1988). School-based improvement: Are we ready? *Educational Leadership, 46*(2), 50-53.

Conley, D.T. (1993). *Road map to restructuring: Policies, practice, and emerging visions of schooling.* Eugene, OR: ERIC Clearinghouse, University of Oregon.

Diegmueller, K. (1991). Staff development is essential in school restructuring. *Journal of Staff Development, 12*(3), 6-9.

Fullan, M.G. (1994). Coordinating top down and bottom up strategies for educational reform. In R.F. Elmore & S.H. Fuhman (Eds.), *The governance of curriculum.* Alexandria, VA: Association for Supervision and Curriculum Development.

Hirsh, S. (1995). Keeping your school improvement plan in track. *Journal of Staff Development, 16*(1), 2-4.

Joyce, B.R. (1991). The doors to school improvement. *Educational Leadership, 48*(8), 59-62.

Joyce, B.R., & Showers, B. (1983). The coaching of teaching. *Educational Leadership, 40* (1), 4-10

Joyce, B.R., Wolf, J., & Calhoun, E. (1993). *The self-renewing school.* Alexandria, VA: Association for Supervision and Curriculum Development.

Killion, J.P., & Harrison, C.R. (1990). An organizational development approach to change. *Journal of Staff Development, 11*(1), 22-25.

Melvin, C.A. (1991). Restructuring schools by applying Deming's management theories. *Journal of Staff Development, 12*(3), 16-20.

Murphy, C.U. (1991). Lessons from a journey into change. *Educational Leadership, 48*(8), 63-67.

Neal, R.G. (1991). *School-based management: A detailed guide for successful implementation.* Bloomington, IN: National Educational Services.

O'Brien, T.P., & Reed, R.R. (1994). *Implications of site-based management for the preparation of public school teachers and administrators in North Carolina.* Technical Report. Raleigh, NC: North Carolina State University.

Odden, A., & Odden, E. (1994). *School-based management—the view from down under.* Brief to Policy Makers [pp. 1-6]. Madison, WI: Wisconsin Center for Education Research, University of Wisconsin.

Office of Educational Research and Improvement. (1993, January). School based management. *Education Research Consumer Guide.* Washington, DC: Office of Research, Office of Educational Research and Improvement (OERI), U.S. Department of Education.

Paden, J. (1995). *Interview of staff member of the Institute for the Development of Educational Activities (I/D/E/A) concerning the Institute's experiences with central office administrators in districts using the I/D/E/A school improvement process.* Dayton, OH: IDEA.

Southwest Educational Development Laboratory. (1990). Recommendation for implementing school-based management/shared decision making. *Insights in Educational Policy and Practice.* Austin, TX: Author.

Sullivan, K. (1995). Stable leadership, time for reflection contributes to momentum, *Journal of Staff Development, 16*(1), 6-8.

Watson, R.S. (1994). The role of professional development in restructuring schools, *Journal of Development, 15*(2), 24-27.

Wood, F.H. (1989). Organizing and managing school-based staff development. In S. Caldwell (Ed.), *Staff development: A handbook of effective policies.* Oxford, OH: National Staff Development Council.

Wood, F.H., Thompson, S.R., & Russell, F. (1981). Designing effective staff development programs. In B. Dillion-Paterson (Ed.), *Staff development/organization development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Wood, F.H., Caldwell, S.D., & Thompson, S.R. (1986). Practical realities for school-based staff development. *Journal of Staff Development, 7* (1), 52-66.

Wood, F.H., Killian, J., McQuarrie, F., & Thompson, S. (1993). *How to organize a school-based staff development program.* Alexandria, VA: Association for Supervision and Curriculum Development.

Related Readings

Brown, D.I. (1991). *Decentralization: The administrator's guidebooks to school district change.* Newsbury Park, CA: Corwin Press.

Caldwell, S.D., & Wood, F.H. (1992). Breaking ground in restructuring. *Educational Leadership, 50*(1), 41-44.

Goin, D.T. (1991). *Teacher and principal involvements in managing site-based elementary school improvements.* Unpublished dissertation, The University of Oklahoma.

Griffin, G.W. (1992). *Principals' and superintendents' perceptions of superintendent behaviors and activities which are linked to school effectiveness.* Unpublished doctoral dissertation, The University of Oklahoma.

Hill, P.T., & Bonen, J. (1990). *Decentralization and accountability in public education.* Santa Monica, CA: Rand.

Murphy, J., & Hallinger, P. (1986). The superintendent as instructional leader: Findings from effective school districts. *The Journal of Educational Administration, 24,* 213-236.

Murphy, J., & Hallinger, P. (1988). Characteristics of instructionally effective school districts. *Journal of Educational Research, 81,* 175-181.

Schlechty, P.C. (1985). District-level policies and practices supporting effective school management and classroom instruction. In *Researching for excellence: An effective schools sourcebook* (pp. 117-129). Washington, DC: National Institute of Education.

Staples, I.E. (1975). *Impact of decentralization on curriculum: Selected viewpoints.* Alexandria, VA: Association for Supervision and Curriculum Development.

Wood, F.H., Caldwell, D., & Cannon, A. (1984). *Report on staff development in the Fort Worth Independent School District.* Fort Worth, TX: Unpublished report, Independent School District.

Wood, F.H., & Caldwell, S.D. (1987). *Defining school-based improvement in the Denver public schools.* Denver, CO: Unpublished report, Denver Public Schools.

Wood, F.H., & Caldwell, S.D. (1991). Planning and training to implement site-based management. *The Journal of Staff Development, 12*(3), 25-29.

About the Author

Fred H. Wood is a professor in the Department of Educational Leadership, University of Oklahoma, 820 Van Vleet Oval, Norman, Oklahoma 73019, (405) 325-2370.

Fred Wood is currently professor of education at the University of Oklahoma in Norman, Oklahoma. He received his undergraduate BA at Western Michigan University where he became certified as a secondary social studies teacher; he also received a masters at Western Michigan University in Educational Administration. Wood earned a doctorate in Curriculum Instruction at the University of Missouri. He has been an elementary, junior high and high school teacher, and a school administrator in rural and suburban school districts. In addition, he has held positions of associate and full professor at the University of Nebraska, and Penn State University. Prior to assuming the position of Dean at the University of Oklahoma, he served nine years as Division Head of Curriculum and Instruction at Penn State University. His special research interests are in the areas of continuing professional education and the improvement of the preparation of public school administrators. His scholarly activities include over 50 refereed publications and an extensive record of national presentations and workshops in the area of continuing professional development.

Chapter

6

Shifting Rules, Shifting Roles: Transforming the Work Environment to Support Learning

Arthur L. Costa
Laura Lipton
Bruce Wellman

The most powerful form of learning, the most sophisticated form of staff development, comes not from listening to the good words of others, but from sharing what we know with others... By reflecting on what we do, by giving it coherence, and by sharing and articulating our craft knowledge, we make meaning, we learn.—Roland Barth

As our schools transform to meet the educational needs of the information age, so, too, must there be a renaissance in staff development. Efforts to restructure schools will prove futile unless staff developers work to create an environment which signals to the staff, the students, and the community that the development of the intellect, cooperative decision making, and continual learning are central to successful change.

While efforts to enhance the staff's instructional competencies, develop curriculum, revise instructional materials, and explore alternative assessment procedures may be important components of staff development in the adult world of schools, the work culture itself is the arena of meaning making and knowledge formation.

It is crucial that the school climate and culture in which teachers make their decisions be aligned with norms of inquiry and collaboration. This rich environment, with a focus on mediating learning, is designed for adult professional development by embracing the following organizing principles.

1. What adult learners bring to the learning process matters. Prior knowledge, complete with misinformation and misconceptions, is the starting point for learning, not an obstacle to learning. Adult learners, then, need access to their own knowledge. Norms of dialogue and collegial coaching support adult learners in articulating their knowledge base. In such an environment it needs to be safe to not know. Knowing what we don't know and being able to frame our questions is a personal learning gift.

2. How we know is as important as what we know. Action is often driven by unconscious maps. Surfacing these deep structures opens up the possibility of reshaping and reforming belief systems. In this way, we

develop shared understandings about how we come to believe and behave as we do.

*3. **Learners have a commitment to entire schemes of understanding.*** The human brain is a pattern-seeking, sense-making organism. Thus, learning is the active engagement of the mind in making sense of information, ideas, and constructs. Individual world view, or personal schema, shape the integration of discreet bits of knowledge and information. To learn deeply and shift long-held assumptions means to articulate and sometimes confront personal world views.

*4. **Knowledge is socially constructed.*** How we talk together matters as much as that we talk about important matters. Respect for differences is essential here. The mutually constructed learning environment is a resource for learning, not the by-product of learning.

*5. **Shaping the adult learning environment is the prime focus of job-embedded learning and job-embedded staff development.*** The context for adult learning must be cultivated in the workplace. Content expertise about adult development, change processes, construction of knowledge, and effective educational practice on the part of staff developers is the quiet assumption in such a model. Process expertise is the public assumption in such a scheme.

*6. **Exploration and dialogue with other adults is as much our work as is our time in the classroom.*** In order to continue learning, personally and organizationally, it is essential that we plan, reflect, and problem-solve collaboratively with colleagues. These collaborations do not keep us from our work, they enhance our capacity to do our work well.

These six principles work together to shape a redefinition of the workplace as an environment for growth. They orient a new focus for staff development, as well. The shift to job-embedded learning creates opportunities and challenges for staff development and new rules, new roles, and new responsibilities for staff developers. In this chapter we explore learning from a constructivist perspective by addressing motivation, core contexts, and facilitative structures.

> Efforts to restructure schools will prove futile unless staff developers work to create an environment which signals to the staff, the students, and the community that the development of the intellect, cooperative decision making, and continual learning are central to successful change.

We propose that staff developers must attend to dual goals—developing the capacity of individuals and developing the capacity of organizations—for experimentation, reflection, and collaboration. Based on these dual goals, we offer and elaborate five guiding assumptions (see Table 1) about the reciprocal nature of individuals and organizations, and offer

potential new directions for staff development.

These five assumptions frame a new context and purpose for staff development. They presume that a major function of staff development is to simultaneously mediate the transformation of the individual and the organization (Garmston & Wellman, 1995). Further, they suggest a shift in energy and focus for staff developers, and a move from course-based training to a systemic approach to renewal and growth. Implicit in each assumption is a view of job-embedded learning which embraces intellectual rigor and high standards of practice, both for individuals and organizations.

Assumption I
Knowledge is both a personal and a social construction.

Current brain research and cognitive psychology point clearly away from behaviorist and incremental approaches to learning. Knowledge, in the emerging view, is a personal and social construction.

Through interaction with others, each learner builds on his or her current reality. The qualities of the interactions are as important as the qualities of the learning materials and the qualities of the learning processes. Process and content are one in this way (Costa & Liebman, 1996).

Knowing is cultivated by sharing and reflecting upon experience. In this way we come to trust and believe in what we know as we see it reflected in the actions and beliefs of others (Brooks & Brooks, 1993; Shapiro, 1994).

Many factors influence teachers' subconscious thinking as they make daily decisions about curriculum, instruction, and the specific lessons to be taught. Factors that contribute to the subjective formation of operating theories include their own culture, knowledge of content, their cognitive style, and their professional values and beliefs about education. These individual constructions of craft understandings ar at once incomplete, familiar, and sufficiently pragmatic as to form a professional's working knowledge about teaching (Clark & Peterson, 1986).

To support continual development of thinking and decision making, time and attention must be devoted to individual meaning making of new information, different perspectives, and current theory. Linking prior experiences, clarifying concepts, and integrating new information must occur before new learning can be applied with comfort and fluency.

However, time and attention to shared meaning making is crucial, as well. Michael Fullan (1991) states: *Good change processes that foster sustained professional development over one's career and lead to student benefits may be one of the few sources of revitalization and satisfaction left for teachers ...Significant educational change con-*

Table 1

Five Assumptions Guiding New Directions for Staff Development

1. Knowledge is both a personal and a social construction. Human beings are meaning-making organisms. We sift experience through personal and social filters, forming beliefs and ways of knowing. Individuals interact with others and with the surrounding environment to shape a personal action-knowledge and an internal guidance systems for decision making.

2. Reflective practice is a powerful contributor to growth. The shift in teachers' role from dispenser to constructor of knowledge, from isolated individual to collaborative community member, and from technician to researcher offers possibilities for expanded professional identity and accelerates opportunities for growth.

3. There is a reciprocal influence between the culture of the workplace and the thinking and behaviors of its members. The norms, culture, and climate of the setting in which teachers work are persuasive influences on teacher thought. Hidden but powerful cues emanate from the environment in which the staff is immersed. These cues signal the institutional value system which governs the operation of the organization.

4. Feedback spirals provide potent processes of continuous growth and learning. Personal and organizational growth are accelerated by cycles of *inquiry, experimentation, and reflection.* These cycles form feedback spirals that move practice to increasingly higher levels of performance.

5. Individuals and organizations are interconnected by invisible webs of energy. Individuals and organizations are interconnected elements of a system which is energized by five sources or states of mind: *efficacy, flexibility, consciousness, craftsmanship, and interdependence.* These states of mind energize the thinking, the decision making, and perceptions of all members of the organization and the system itself.

sists of changes in beliefs, teaching style and materials, which can come about only through processes of personal development in a social context.

Articulating our thought processes and exploring multiple perspectives clarifies our knowing, and shapes and enhances our thinking. The process of personal meaning making must be juxtaposed with shared experiences, collaborative problem-solving, and working through conflict in a social arena. All are essential meaning making opportunities.

New Directions for Staff Development

Staff development can offer opportunities for individuals to talk aloud about their internal maps, causing examination, refinement, and the development of new theories and practices. Through dialogue about their ways

of knowing, the reasoning behind their actions, and their beliefs and values about learning, educators can foster individual and organizational growth, commitment, and renewal.

Such engagement establishes an image of teaching as a complex, intellectually challenging, and growth-producing profession. This process, in turn, will more likely create similar visions of intellectually stimulating, collaborative, and creative school and classroom conditions. To support constructivist teaching practices in classrooms, we must model constructivist teaching and learning in our staff development programs.

A few guiding tenets are to increase choices for learning, offer opportunities for individual meaning making, create forums for developing shared understanding, and provide diverse experiences which acknowledge and honor a variety of learning preferences. To achieve this, strategies include:

- organizing study groups and learning teams to focus on questions of importance to the members and the organization;
- diversifying professional development opportunities to allow for individual learning preferences and styles;
- reconfiguring staff meetings to balance participation, maximize productivity, and address personal and group learning;
- establishing forums to explore and share theories of learning, as opposed to techniques or strategies;
- developing a shared repertoire of process tools based on norms of collaboration and dialogue;
- recognizing diversity as a unifying strength, and creating programs and opportunities for learning accordingly; and
- consciously modeling a constructivist design for learning in all staff development endeavors.

Assumption II
Reflective practice is a powerful contributor to growth.

Most traditional modes of organizational structure narrow the focus of the teacher's role to the specific act of teaching. For example, technical models of supervision assume a hierarchical relationship in which a superior is presumed to be the keeper of knowledge. Sergiovanni (1992) offers a differing view. He suggests that teachers need to "create knowledge in use as they practice becoming skilled surfers who ride the wave of the pattern of teaching as it unfolds" (p. 210).

This level of professional ability requires contextually-based, systematic experimentation, and reflection. Without reflection, progress is uninformed, and change in practice is haphazard. Alternatively, teachers who participated in systematic, self-directed inquiry about their work in classrooms find that their own research offers a powerful, intellectually-satisfying process for understanding and transforming their teaching practices (Cochran-Smith & Lytle, 1990).

Teachers as Reflective Practitioners

Reflection is a specialized form of thinking, arising from perplexity about a direct experience and leading to purposeful inquiry and problem-resolution. Two defining elements have emerged from the recent literature regarding reflective practice: Reflection involves the reconstruction of experience (Grimmett, 1988; McKinnon & Erickson, 1988) and personal reflection on one's own experience is a relevant and important method for improving subsequent action and building a repertoire of professional knowledge (Kilbourne, 1988; Schön, 1987).

The non-routine nature of teacher's work (Rosenholtz, 1991) requires complex, contextual decision making and an inquiry-oriented approach to practice. Reflection facilitates development of problem-solving skills by fostering the ability to reframe experience, generate alternatives, make inferences based on prior knowledge, and evaluate actions to construct new learnings.

Reflection causes the reconstruction of experience which involves recasting the situation as a result of clarifying questions, reconsidering assumptions, and generating a range of alternative responses or actions. There are diverse possibilities for embedding reflective practice within the workplace. Prominent among them are action research, cognitive coaching, and professional portfolios.

Action Research. One path to knowledge generation is forged when teachers engage in a process in which individuals, pairs, small groups, and entire faculties use classroom activities as a forum for testing new ideas and exploring research findings in their own school context. One important method for individual and organizational growth is teachers' engagement in action research in which they systematically and intentionally conduct inquiry regarding school or classroom-based issues and concerns, develop a research design, collect and analyze data from multiple sources, and establish and implement plans for change.

> It is crucial that the school climate and culture in which teachers make their decisions be aligned with norms of inquiry and collaboration.

The notion of teacher research is not a new one, having its roots in the "action research" of the 1950s and 1960s. Practitioner-based research can take a variety of forms, including teacher's journals, ethnographic reports and essays, various inquiry processes (such as surveys, checklists, and interviews), and classroom-based studies.

When teachers engage in the process of generating theory from their own examination and analysis of their work, their teaching is transformed in important ways as they

challenge their own assumptions, explore multiple alternatives, and find new connections. Everyone benefits when educators have a forum for sharing their conclusions and insights.

Cognitive Coaching. Cognitive Coaching has proven to be a powerful model for mediating reflective thought and action. Several studies report increases in such factors as cognitive development, job satisfaction, and inferred increases in student learning (Edwards & Newton, 1994; Garmston & Hyerle, 1988). The intent of coaching, over time, is to develop the teacher's ability to self-monitor, self-analyze, and self-evaluate. Indeed, the ultimate purpose of coaching is to modify another person's capacities to modify themselves (Costa & Garmston, 1994). As a result, teachers cognitive capacities are enhanced, and their awareness and command of cognitive skills are increased.

> In order to continue learning, personally and organizationally, it is essential that we plan, reflect, and problem-solve collaboratively with colleagues. These collaborations do not keep us from our work; they enhance our capacity to do our work well.

As the principles of Cognitive Coaching are internalized and applied, there is a shift in district practices from teacher evaluation to goal clarification and coaching, from competition to cooperation, from conformity to creativity, and from control to empowerment. Engagement in coaching often causes a dissatisfaction with existing curriculum and a shift from acquiring more content to a focus on developing student's intellectual processes.

Cognitive Coaching can be the impetus for developing the school as a home for the mind, an ecology where the intellects of all who live there are mediated for increased complexity and capacity. Further, Cognitive Coaching provides a foundation for developing learning organizations and adaptive schools (Costa, 1991; Garmston & Wellman, 1995; Senge, 1990).

Professional Portfolios. The development of personal learning goals, which articulate with the values and vision of the organization and have identified examples for evidence of achievement, help support individual and organizational development. The entire system benefits when practitioners make a commitment to their personal best as a contribution to the continuing efforts of a school or district to grow and learn.

Professional portfolios promote reflective, growth-oriented practice. They offer an opportunity to establish and clarify differentiated learning goals while maintaining high standards for effective practice. Through the process of developing professional portfolios, shared criteria for effec-

tiveness is established and illuminated while placing the responsibility for personal progress and goal achievement with the individual.

Portfolios provide a tangible method for supporting authentic learning over time, utilizing a cycle of goal setting, experimentation, and reflection. They focus energies on professional learning challenges which involve analysis, integration of knowledge, creativity, and self-prescription.

New Directions for Staff Development

Reflective practice offers a potent process for enhancing professional growth and school renewal. Reflection, particularly when it is collaborative, causes teachers to broaden their conceptions about their work. Reflection keeps practitioners continually fresh through opportunities to consider their experience in previously unthought dimensions.

Activities and interactions which promote reflection cause practitioners to develop new patterns of thinking and alternative perspectives from which they can take a fresh look at the challenges of their work and from which they can generate personal theories of practice. Some strategies include:

- supporting action research through skill development in experimental design and data analysis;
- creating forums for people/teams to share their questions and results;
- establishing Cognitive Coaching partnerships across grade levels and content areas;
- establishing professional networks across school and district boundaries organized around exploration of innovative approaches to instruction, curriculum, and assessment;
- publishing monographs of teacher's thinking and writing about their classroom practice;
- facilitating book study groups where current research and theory is the focus; and
- mentoring colleagues to develop long-term learning agendas with portfolios as a focus for dialogue.

> Staff developers must attend to dual goals—developing the capacity of individuals and developing the capacity of organizations—for experimentation, reflection, and collaboration.

Assumption III
There is a reciprocal influence between the culture of the workplace and the thinking and behaviors of its members.

The culture of an organization is both a process and product of human expression (Lipton, 1992). Culture shapes social reality while being modified by it, continually being created and recreated by the ongoing interactions of the members of the organization. Cultural norms can promote or impede the gen-

eration and diffusion of new ideas. Literature on organizational culture suggests four norms which are most likely to promote change:
• support for personal knowledge acquisition;
• encouragement of collaborative effort;
• the opportunity for the opposition of ideas; and
• the receptivity to and expectation of change (Rogers, 1962).

The organizational culture shapes the role definitions and expectations of its members. When the cultural norms support experimentation and learning, both individuals and the organization are parts of a learning community.

These learning communities are learner and learning driven not teacher and teaching driven. They include all members of the organization—teachers, students, parents, custodians, bus drivers, all support staff, and staff developers themselves—in a process of continual development. Cultural artifacts, such as slogans, rituals, and rewards, communicate the organization's culture. They serve as constant metaphorical reminders of the high value placed on learning. The organizational culture reflects the shared values that help members to know how to operate, particularly in complex or ambiguous situations. Key to this notion are norms of collaboration.

Teacher empowerment, critical analysis and reflection regarding practice, and commitment to continuous professional growth and instructional improvement are effects credited to collaboration (Lieberman, 1988; Little, 1982; Rallis, 1990). The traditional norms of the teaching culture—equality, cordiality, and privacy (Hart, 1990; Lortie, 1975)—offer little hope for individual growth and challenge.

Collaborative cultures foster norms of collegiality that respect individuality, establish expectations for continuous growth and improvement, develop problem-coping and conflict resolution strategies, and embrace lifelong learning that involves reflective practice, inquiry, and skill development (Fullan & Hargreaves, 1991). It is particularly important that collaboration must be linked to norms of continuous improvement (Fullan, 1991) which are connected directly to deepening understandings about the instructional process and improving student learning.

Collaborative cultures also support risk taking when practitioners engage in rigorous reflection on their practice with a mutual willingness to question underlying assumptions (Hargreaves, 1990; Little,1982). Reflective practice increases comfort with professional uncertainty and supports the notion of conscious experimentation and continued professional growth. Cultural norms which support reflective practice and enable staff developers to use collegial interactions

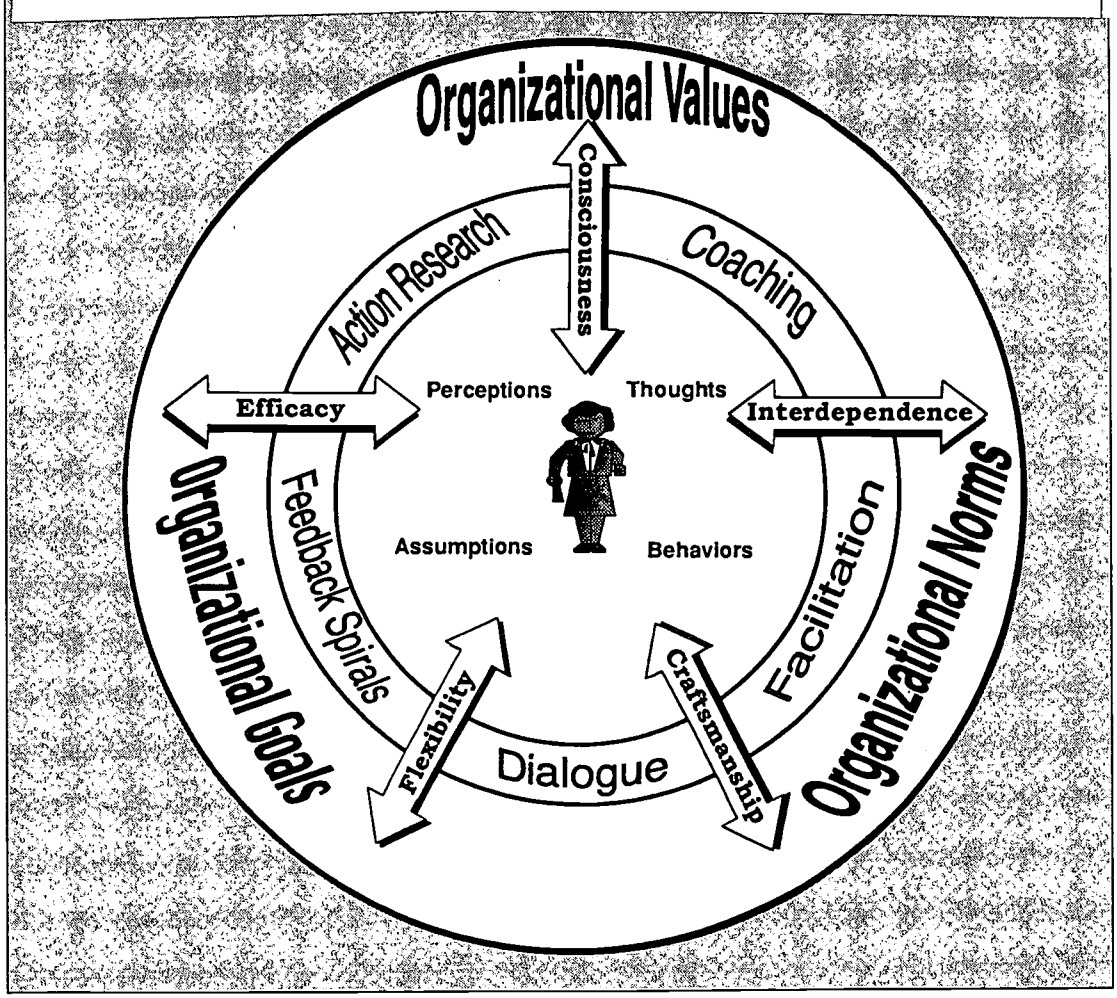
to facilitate cognitive growth actually create a powerful combination to support educational change, professional rigor, and overall school improvement.

New Directions for Staff Development

How an organization expends its valuable and limited resources—time, energy, and money—signals the organization's value system to the staff, the students, and the community. In a learning organization, resources are devoted to enhancing performance, fostering collaborative relationships, developing intellectual capacity, and supporting continued learning for all members of the community.

Figure 1

Staff Development Activities to Promote Job-Embedded Learning



To support continual development of thinking and decision-making, time and attention must be devoted to individual meaning making of new information, different perspectives, and current theory.

A collaborative culture, based on mutual support from colleagues, can serve to foster norms of experimentation and continuous improvement and reduce discomfort with risk-taking. Staff development that functions to mediate, facilitate, coach, and reflect can powerfully promote these norms in the workplace (see Figure 1). Some strategies include:

- facilitating access to information for all members of the organization;
- teach methods for assessing and analyzing the school culture;
- organizing staff development offerings which are linked to the organization's values and goals, and which are offered in a developmental sequence that supports long-term learning;
- engaging mixed constituent groups in problem-solving and decision-making activities;
- facilitating dialogue within a faculty about the organization's culture by mediating open forums for conflict to be addressed constructively;
- coaching administrators and teacher leaders on strategies to initiate and sustain innovation in the workplace;
- teaching the skills, tools, and processes of effective communication and consensus building explicitly, and providing opportunities for practice with feedback;
- teaching and modeling powerful processes and to maximize meeting productivity and satisfaction; and
- preparing and supporting facilitators who can serve as process observers and coaches within their schools and across school sites to support collaborative work and group development.

Assumption IV
Feedback spirals provide potent processes of continuous growth and learning.

Feedback spirals—cycles of inquiry, experimentation, and reflection—are a way of thinking employed throughout a learning organization. They map and accelerate learning processes for the organization and its members, all of whom are in a continual process of development (Costa & Kallick, 1995). Feedback spirals imply a recursive process. They are not intended to define performance outcomes, summative or terminal conditions, or behaviors. Rather, they are cyclical guides to learning and continued progress.

Feedback spirals guide self-improvement for organizations and their members by utilizing feedback (i.e., generating, gathering, analyzing, and owning a variety of data and information). Organizations

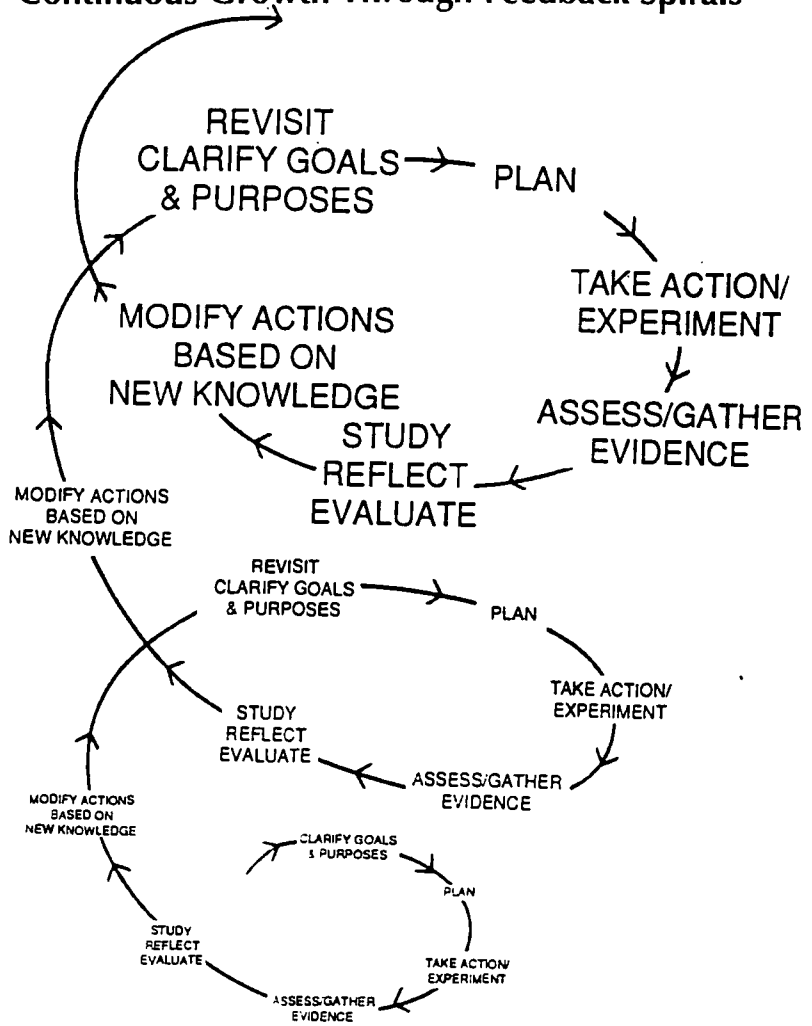
and individuals employ feedback spirals by scanning the environment for clues about the results of their actions. In some cases, individuals make changes after consciously observing their own feelings, attitudes, and skills.

In other situations, spirals depend on the observations of others such as coaches, mentors or critical friends (Costa & Kallick, 1995). In still other cases, those directly involved in a change collect specific kinds of evidence about what is happening in the organization's environment. Once these data are analyzed, interpreted, and internalized, they are compared with one's values and actions, which are often modified towards increasingly effective goal achievement.

The components of feedback spirals may be diagrammed as a recursive, cyclical pathway (see Figure 2). These pathways are designed by organizations to identify and gather data through increased consciousness of their own feelings, attitudes, and skills; through observation and interviews with others; and through collecting evidence of the effects of their efforts on the environment.

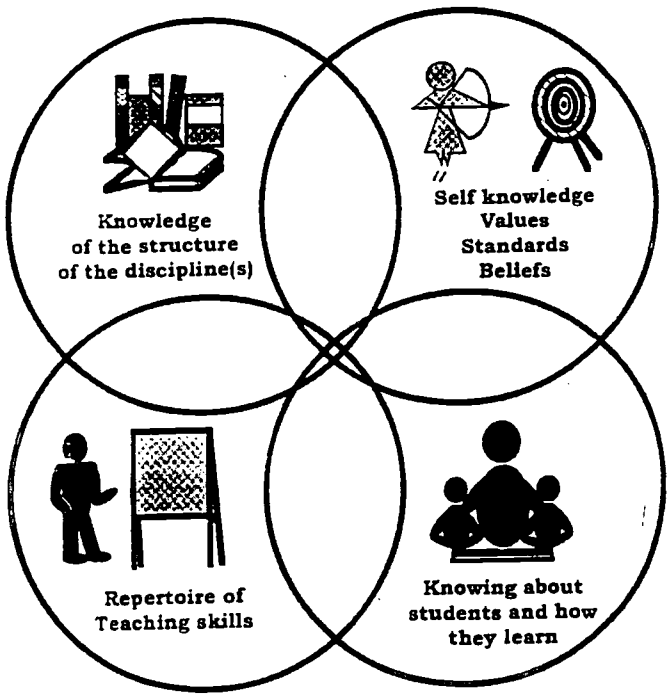
Figure 2

Continuous Growth Through Feedback Spirals



We propose that the following four areas are fundamental interactive capacities for organizing and assessing constructivist-based, job-embedded learning (see Figure 3). We suggest that these

Figure 3
An Expert Educator's Professional Knowledge



areas provide arenas for the creation of feedback spirals to support continued improvement and growth.

1. Knowledge of the structure of the discipline(s). As discussed in the next chapter of this book, professional capacities are informed by knowledge of the deeper structure of a discipline, with awareness of its organizing principles, cognitive skills, and required habits of mind (Costa & Liebmann, 1996). Teacher's manuals and inservice sessions on teaching strategies typically do not open up this territory. The critical questions for exploration of a discipline are: What do experts currently believe is the most valid content in a particular field? How do they think about this field? What are the pathways from novice to expert thinking and action in this field?

2. Self knowledge, values, standards, and beliefs. Professional capacities are rooted in the essential knowledge of self. As we search for clarity about the essence of our professional identity, we uncover our values and beliefs about living, learning, and achieving success. Related to these areas of understanding are the issues of standards for performance and standards for products. These standards apply to our own work and to the expectations we hold for others. Self knowledge here is not enough, we need to constantly filter for congruence between our inner structures and our outer actions and communications (Dilts, 1990).

3. Repertoire of teaching and facilitation skills. Like the queen on a chessboard, the person with the most moves has the most options and the greatest degree of influence. There is always

more than one way to do things. As a profession, we must move beyond the folk wisdom that governs discussions about teaching and learning and reach out to the knowledge bases to constantly expand our repertoires in the classroom, in staff and team meetings, and in planning and decision-making groups (Doyle & Strauss, 1988; Saphier & Gower 1987).

4. Knowing about people and how they learn. Individuals in our schools bring unique characteristics to the learning process and to the culture of the school and classroom. Mutual interaction, who others are to us as individuals and who we are to them, matters first and foremost at the human level. In any group of learners, we face a variety of learning style differences requiring multiple approaches to both content and process (Gardner, 1983). Added to this are significant variations in cultural beliefs, values, and approaches to learning embedded in our changing populations in schools and communities.

Staff development can offer opportunities for individuals to talk aloud about their internal maps, causing examination, refinement, and the development of new theories and practices.

Figure 3 illustrates that each area of the map interacts dynamically with the other elements. For example, in each discipline there is a content-specific repertoire. The nature of the learners involved has a major influence on choices and options in this area. The teacher's values, beliefs, and background knowledge interact with the other three circles as teachers make decisions about when and how to teach what to whom.

New Directions for Staff Development

Individuals and organizations engaged in continuous learning demonstrate a willingness to change by building critique and assessment into their processes. Feedback spirals allow for a data-based examination and clarification of vision, values, purposes, and outcomes. Out of this clarity comes the capacity for individuals to communicate and share progress and to align the organization's goals with those of its individual members. Thus, individuals—and the organization—are continually self-learning, self-renewing, and self-modifying.

Staff developers can support goal setting and focus attention on the research-base for effective practice and continual improvement by developing opportunities for the examination of current practice and progress

using feedback spirals. Some strategies include:
• facilitating data provision, by conducting surveys, collecting information requested by research teams, and offering objective, specific feedback;
• creating feedback spirals relating to the interconnection between process and content, for example:
a) the influence of explicitly teaching process skills on content learning;
b) the effects of teacher's content knowledge on student achievement;
c) the congruence of behaviors with both personal and organizational values;
d) the relationship between developmentally appropriate practice and student social skills;
e) the impact of alternative assessment on teachers' thinking about curriculum and instructional practice
• creating arenas to ask difficult questions about practice calibrated with organizational values and goals; and
• establishing benchmarks for individuals and the organization as "check-in" points for examining progress.

There are diverse possibilities for embedding reflective practice within the workplace. Prominent among them are action research, cognitive coaching, and professional portfolios.

Assumption V
Individuals and organizations are interconnected by invisible webs of energy.

The Five States of Mind

The five states of mind are the catalysts, the energy sources fueling holonomous behaviors. *Holonomy* is a combination of two Greek words, "holos" or whole, and "on" meaning part. Thus, holonomy means that an entity is simultaneously an autonomous unit and a member of a larger whole. Cognitive holonomy, therefore, is the capacity to both act autonomously and work interdependently (Koestler, 1972).

For an individual, these sources, or five states of mind, represent the continuing tensions and resources for acting holonomously. For an organization, they form an invisible energy field in which all parties are affected as surely as a strong magnetic field affects a compass. Taken together, they are a force directed toward increasingly authentic, congruent, and ethical behavior—the touchstones of integrity. They are the tools of disciplined choice making and the primary vehicles in the lifelong journey toward integration (Costa & Garmston, 1994).

Holonomous Individuals

Holonomous individuals may be described in terms of five states of mind:

1. Efficacy. Efficacious individuals

know they have choices, believe in their capacity to make a difference through their actions, and take the responsibility to do so.

2. *Flexibility.* Flexible individuals seek alternatives, develop options, consider situations from multiple perspectives, change their mind in light of new information, and demonstrate respect and empathy for diverse ways of operating.

3. *Craftsmanship.* An individual who exercises craftsmanship continually strives for excellence, setting increasingly higher goals for performance and working to attain their own high standards and pursue ongoing learning.

4. *Consciousness.* Conscious individuals are highly aware of their own thought processes and monitor both internal and external cues to ascertain the effects of their actions on others and on the environment.

5. *Interdependence.* Interdependence energizes members of a community who realize that they will benefit from participating in, contributing to, and receiving information from relationships with others, and who are willing to create and change relationships to benefit group work.

Even the most effective self-modifying, self-authoring individual is still a member of a larger community. The dual nature of holonomy is about building a capacity in individuals to engage collaboratively in continuous cycles of improvement. Thus, these same five states of mind are the sources of growth and energy for organizations as well as individuals. They are available as resources to each element of the larger system. The integration of these five states provides a synergistic interaction. Their degree of alignment within and among each unit of the organization is the degree to which an organization achieves holonomy.

The Holonomous Workplace

The holonomous workplace may be described in terms of five states of mind:

> Reflection is a specialized form of thinking, arising from perplexity about a direct experience and leading to purposeful inquiry and problem-resolution.

1. *Organizational efficacy.* Efficacious organizations are self-renewing, shaping ongoing actions based on clarity of goals. These organizations direct their resources to becoming increasingly viable. They are in a continuous state of learning and make a major investment in developing the leadership skills of all the members of the community, partaking in learning opportunities and skill development. Efficacious learning organizations pose and pursue problems to solve, produce new knowledge, and add to the reservoir of professional research.

2. *Organizational craftsmanship.* The craftsman-like organization sets

> Reflective practice offers a potent process for enhancing professional growth and school renewal. Reflection keeps practitioners continually fresh through opportunities to consider their experience in previously unthought dimensions.

high standards and continually strives for quality, congruence, precision, artisanship, and clarity. All members develop, share, and sharpen a common vision about what their organization will look like in the future and how to work toward that desired state. They clarify their goals and strive to align daily practices with a vision of high performing human beings, operating at their highest levels of holonomy.

3. Organizational consciousness. Conscious learning organizations are aware of their mission and values and use them as a basis for action. They establish and use clear and explicit criteria for decision making and problem solving. Conscious organizations are reflective. They utilize well developed feedback spirals to monitor and align practices with values and beliefs, thereby constructing consistency in operation and congruency in culture. Such feedback is used as criteria for communitywide decision making about efforts to study, refine, improve, and promote increasingly more thoughtful practices.

4. Organizational flexibility. The flexible organization fosters inquiry, experimentation, and action research. Experimentation implies that an atmosphere of choice, risk-taking, and inquiry exists. The flexible organization utilizes a wide repertoire of thinking and process skills to generate ideas, resolve conflict, and create new possibilities. Diversity is valued in points of view and modes of operation. Communication is enhanced through freedom from judgment and creativity flourishes in this low-risk atmosphere.

5. Organizational interdependence. Interdependent organizations realize human potential as their greatest natural resource. Valuing a range of diverse skills and capacities makes a school, a business, a community, a society, and a nation strong. It is through collaboratively drawing on the resources of diversity that a product, an idea, or a plan has greater potential and power. Interdependence is developed not by obscuring diversity but by valuing the friction that differences bring and exploring those differences in an atmosphere of trust. It is the fuel that allows common people to attain uncommon results. Simply stated, it is less of me and more of we.

New Directions for Staff Development

Being committed to enhancing interdependence and a sense of community, everyone in the organization becomes more aware of and likely to discuss their strategies

for improving the richness of their climate, the quality of their interactions, and the dynamics of their interpersonal relationships. People are supported in their effort to engage and grow in higher-level, creative, and experimental thought when they are steeped in a trusting, cooperative climate. In an atmosphere of trust, existing practices, assumptions, policies, and traditional ways are continually challenged. An organization's growth is found not in equilibrium but in a poised stance of imbalance, ready to embrace innovation and evolve towards its highest potential. It is out of professional uncertainty that learning takes place, new understandings are forged, new connections are bridged, and discoveries made.

A holonomous organization, as well as a holonomous individual, is resourceful, responsible, reflective, and respectful. Both the organization and its members are continually refining and renewing themselves. Staff developers can infuse the energy of the five states of mind for themselves, their constituents, and their workplace, resulting in increased creativity, effectiveness, productivity, and satisfaction. Some strategies include:

- employing states of mind as a template for individual and group development;
- facilitating groups to envision desired states of mind and mediating increased resourcefulness towards that desired state;
- framing activities to develop group states of mind; work from external mediation toward selfmediation;
- constructing processing questions to support individual and group development of states of mind; and
- instilling holonomy as a value system which is reflected in all staff development activities.

Cultivating Job-Embedded Learning: The Staff Developer as Gardener

Who we are as learners, both individually and collectively, matters greatly. How we are as learners matters even more. We create our learning environment and are shaped by this creation and by the creating. As our personal histories, values, and beliefs intersect with those of others, habits of heart and habits of mind are formed, reformed, and intermingled. Thus a community of curiosity, inquiry, and shared caring emerges.

Much like in a greenhouse which supports rich and diverse varieties of life, environmental conditions for growth are critical. Soil, water temperature, and air quality must all be balanced carefully. Individual plants have individual needs. Some flowers need more light and some less. Some need more water. Skilled gardeners attend to the specific requirements of each

plant as they monitor overall greenhouse conditions. The entire system depends on the health of its individual members. Each plant contributes to the overall environment; each is deeply affected by it. When prime conditions for growth are present, the system flourishes.

Stephen Covey (1989) suggests that "desired results in an organization are created not by the mechanic, but by the gardener. The gardener knows that life is within the seed." Creating potent conditions for growth by cultivating and mediating the learning environment is the important work of staff development. With it comes new roles, new responsibilities, and new possibilities.

References

Brooks, J.G., & Brooks, M.G. (1993). *The case for constructive classrooms.* Alexandria, VA: Association for Supervision and Staff Development.

Clark, C., & Peterson, P. (1986). Teachers' thought processes. In C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.) (pp. 255-296). New York: Macmillan.

Cochran-Smith, M., & Lytle, S. (1990). Research on teaching and teacher research: The issues that divide. *Educational Researcher, 19*(2), 2-11.

Costa, A. (1991). The school as a home for the mind. In A. Costa (Ed.), *Developing minds: A resource book for teaching thinking* (pp. 47-54). Alexandria, VA:Association for Supervision and Curriculum Development.

Costa, A., & Garmston, R. (1994). *Cognitive coaching: A foundation for the renaissance school.* Norwood, MA: Christopher Gordon.

Costa, A., & Kallick, B. (1995). *Assessment in the learning organization: Shifting the paradigm.* Alexandria, VA: Association for Supervision and Curriculum Development.

Costa, A., & Liebmann, R. (1996). *Envisioning a process of content: Toward a Renaissance curriculum.* Thousand Oaks, CA: Corwin Press.

Covey, S. (1989). *The seven habits of highly effective people: Powerful lessons in personal change.* New York: Simon and Schuster.

Dilts, R. (1990). *Changing beliefs systems with NLP.* Cuperintino, CA: Meta Publishers.

Doyle, M., & Strauss, D. (1988). *How to make meetings work.* New York: Jove Books

Edwards, J.L., & Newton, R. (1994). *The effect of cognitive coaching on teacher efficacy and empowerment.* Evergreen, CO: Author.

Fullan, M., with Stiegelbauer, S. (1991). *The new meaning of educational change.* New York: Teachers College Press.

Fullan, M., & Hargreaves, A. (1991). *What's worth fighting for? Working together for your school.* Toronto: Ontario Public School Teachers' Federation.

Gardner, H. (1983) *Frames of mind.* New York: Basic Books

Garmston, R., & Hyerle, D. (1988). *Professor's peer coaching program: Report on a 1987-88 pilot project to develop and test a staff development model for improving instruction at California State University.* Sacramento, CA: California State University.

Garmston, R., & Wellman, B. (1995). Adaptive schools in a quantum universe. *Educational Leadership, 52*(7), 6-12.

Grimmett, P. (1988). The nature of reflection and Schon's conception in perspective. In P. Grimmett & G. Erickson (Eds.), *Reflection in teacher education* (pp. 5-15). New York: Teachers College Press.

Hargreaves, A. (1990). Contrived collegiality: The micropolitics of teacher collaboration. In J. Blase (Ed.), *The politics of life in schools.* Berkeley, CA: Sage Press.

Hart, A. (1990). Impact of the school social unit on teacher authority during work redesign. *American Educational Research Journal, 47*(3), 503-532.

Kilbourne, B. (1988). Reflecting on vignettes of teaching. In P. Grimmett & G. Erickson (Eds.), *Reflection in teacher education* (pp. 91-112). New York: Teachers College Press.

Koestler, A. (1972). *The roots of coincidence.* New York: Vintage Books

Lieberman, A. (1988). *Building a professional culture in schools.* New York: Teachers College Press.

Lipton, L. (1992). *The initiation of new elementary school: A case study on organizational culture.* Unpublished doctoral dissertation. Fordham University, New York.

Little, J. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Education Research Journal, 19*(3), 325-340.

Lortie, D. (1975). *Schoolteacher: A sociological study.* Chicago: University of Chicago Press.

MacKinnon, A., & Erickson, G. (1988). Taking Schön's ideas to a science teaching practicum. In P. Grimmett & G. Erickson (Ed.), *Reflection in teacher education* (pp. 113-138). New York: Teachers College Press.

Rallis, S. (1990). Professional teachers and restructured schools: Leadership challenges. In B. Mitchell & L.L. Cunningham (Eds.), *Educational leadership and changing contexts of families, communities, and schools* (pp. 192-213). Chicago: University of Chicago Press.

Rogers, E. (1962). *Diffusion of innovations.* New York: Free Press.

Rosenholtz, S. (1991). *Teachers' workplace: The social organization of schools.* New York: Longman.

Saphier, J., & Gower, R. (1987). *The skillful teacher.* Carlisle, MA: Research for Better Teaching.

Schön, D. (1987). *Educating the reflective practitioner.* San Francisco: Jossey-Bass.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday.

Sergiovanni, T. (1992). Moral authority and the regeneration of supervision. In C. Glickman (Ed.), *Supervision in transition* (pp. 203-214). Alexandria, VA: Association for Supervision and Curriculum Development.

Shapiro, A. (1994). *What children bring to light: A constructivist perspective on children's learning in science.* New York: Teacher College Press.

Related Readings

Argyris, C., & Schön, D. (1978). *Organizational learning: A theory of action perspective.* New York: Addison Wesley.

Joyce, B., & Showers, B. (1995). *Student achievement through staff development* (2nd ed.). New York: Longman.

Lipton, L. (1993) *Transforming information into knowledge: Structured reflection in administrative practice.* Paper presented at the meeting of the American Educational Research Association, Atlanta, GA.

Rowe, M. B. (1974). Wait time and rewards as instructional variables. *Journal of Research in Science and Teaching, 2,* 81-94.

Shavelson, R. (1973). *The basic teaching skill: Decision making.* R&D Memorandum No. 104. Stanford, CA: Center for R&D in Teaching, Stanford University School of Education.

Acknowledgements

The model of Cognitive Coaching and the concepts of States of Mind are derived from Costa and Garmston (1994). Permission by the publisher and co-authors to draw on these materials is greatly appreciated.

About the Authors

Arthur L. Costa is an emeritus professor of education at California State University, Sacramento and co-director of the Institute Intelligent Behavior in Berkeley, California. He can be contacted at 3892 Kilohana St., P.O. Box 705, Kahaheo, Hawaii 96741, (808) 332-7890, (e-mail: artcosta@aol.com). Costa has served as a classroom teacher, a curriculum consultant, an assistant superintendent for instruction, and as the director of educational programs for the National Aeronautics and Space Administration. He is the author of numerous journal articles and edited *Developing Minds: A Resource Book for Teaching Thinking*. Costa is the author of *The Enabling Behaviors*, *Teaching for Intelligent Behaviors*, and *The School as a Home for the Mind*. He is co-author of *Cognitive Coaching, A Foundations for Renaissance Schools*, and co-editor of *The Role of Assessment in the Learning Organization: Shifting the Paradigm*, and *If Minds Matter*. Active in many professional organizations, Costa served as president of the California Association for Supervision and Curriculum Development and was the national president of ASCD from 1988 to 1989.

Laura Lipton is the Director of Educational Consulting Services, 503 Underhill Ave., Yorktown Heights, NY 10598, (914) 962-5314, (e-mail: educonser@aol.com). She is also a senior associate with the Institute for Intelligent Behavior in Berkeley, CA. Lipton's teaching experience ranges from first grade through university, and she has an extensive background in curriculum and staff development. She has directed statewide curriculum development projects in social studies and health education and was a member of the New York State committee to explore Thinking Skills Across the Curriculum. Presently, she applies her extensive experience with adult learners to workshops and seminars conducted throughout the United States and Canada on such topics as learner-centered instruction, curriculum integration, authentic assessment, Cognitive Coaching, and presentation design and delivery. Her most recent publications include two book chapters: "The Psychology of Supervision" (co-authored with Robert Garmston) and "Organizational Learning: The Essential Journey" (co-authored with Robert Melamede).

Bruce Wellman is the director of Science Resources in Guildford, Vermont, and a senior associate with the Institute for Intelligent Behavior in Berkeley, California. He can be contacted at Colyer Road, RR #4, Box 843, Guilford, Vermont 05301, (802) 257-4892, (e-mail: bwellman@aol.com). He consults with school systems, professional groups, and publishers throughout the United States and Canada, presenting workshops and courses for teachers and administrators on teaching methods and materials in science, thinking skills development, Cognitive Coaching, presentation skills, and facilitating collaborative groups. Wellman has served as a classroom teacher, curriculum coordinator, and staff developer in the Oberlin, Ohio and Concord, Massachusetts public schools. In addition to various articles and chapters on science instruction and organization development, he is co-author (with Robert Garmston) of the ASCD publication, *How to Make Presentations that Teach and Transform.* He holds a B.A. from Antioch College and an M. Ed. from Lesley College.

Chapter

7

Teacher Content Knowledge: Impact on Teaching and Learning

Randy Schenkat
Kathie Tyser

In the past, there seemed to be a complacency about content knowledge in both teacher training and K-12 schools. There was an assumption that teachers get all that they need in their college major and once they begin teaching in the classroom, staff development efforts need to focus on fine-tuning instructional strategies, dealing with social and behavior problems, integrating new technology, and generally keeping abreast with our changing communities and culture.

Staff developers are beginning to learn of the pivotal role of teachers' content knowledge in assuring that students learn for understanding. In this chapter, we would like to cast content knowledge in a somewhat different light—that it is the key to teaching and learning. Further, in many cases, it is greatly underdeveloped when teachers enter the profession.

Our study and design of learning events for teachers concerning content knowledge has raised four key questions which form the organization of this chapter:

- What do teachers need to know to foster student learning?
- What is the current view of content knowledge held by most educators?
- What do students need for success in adult life and how does this relate to content knowledge?
- What are the staff development implications related to content knowledge?

What do teachers need to know to foster student learning?

For many years, it was assumed that teachers knew the content of their subject areas (Mosenthal & Ball, 1992). Assistance, if it was to come, was more needed in the areas of generic teaching skills, such as with Madeline Hunter's essential elements or cooperative learning. This approach was taken, in part, because some of the crude research that was done on content preparation showed little difference in teacher performance based on the numbers of content courses taken.

However, at least two factors have caused a reexamination of the utility of content knowledge

in teaching and learning. First, since the mid 1980s there has been an emphasis on conceptual understanding and higher-order thinking in students, particularly in mathematics and science. Second, a body of research has been conducted on teacher's content knowledge in setting the foundations for the National Board of Professional Teaching Standards (Shulman, 1987).

Knowing Content

There is very clear evidence today that supports the foundational importance of teachers' content knowledge (Prawat, 1992). The depth of teacher understanding directly relates to student learning. Teachers are better able to assess student understanding when they are more knowledgeable about the topics they are teaching.

What does this content knowledge look like? In his seminal article, "Those Who Understand: Knowledge Growth in Teaching," Shulman (1986) provided an in-depth look at what a teacher with thorough content knowledge in biology might look like. Other examples from Shulman's work are in the areas of social studies, English, and mathematics. The examples which follow provide a concrete vision of the differences content knowledge can make.

• ***Regina.*** Regina, a teacher in the science department, knew there are many ways to organize the study of biology. It could be viewed a science of molecules from which one aggregates up to the rest of the field, explaining living phenomena in terms of their constituent parts. Another view could see it as a science of ecological systems from which one disaggregrates down to the smaller units, explaining activities of individual units by virtue of larger systems of which they are a part.

A third way Regina considered was the study of biological organisms from whose familiar structures, functions, and

> Staff developers are beginning to learn of the pivotal role of teachers' content knowledge in assuring that students learn for understanding.

interactions one weaves a theory of application. Regina also understood the rules of biology. For example, when competing claims are offered regarding the same biological phenomenon, she knew how the controversy been had been settled.

Her understanding in biology was much deeper than knowing that something was so. Regina understood why it is so, on what grounds its warrant could be asserted, and under what circumstances our belief in its justification can be weakened and even denied. Also, she understood why a given topic is particularly central to biology while another may be somewhat peripheral.

• ***Chris.*** Chris, a social studies teacher, was wonderfully articulate about

his discipline. He revealed his interest in anthropology when he read Conrad. He illustrated the link between literature and human evolution by citing Conrad's *Heart of Darkness.* Exhibiting an admirable grasp of anthropological perspective, Chris drew and explicated a conceptual map of early human development. Anthropology captured Chris' imagination, and his interest and enthusiasm for it is expressed in his teaching.

• ***Colleen.*** Always an avid reader, Colleen entered college with the intention of majoring in English. In four years, she completed both her BA and MA in English. Altogether, Colleen took 24 English courses, her greatest expertise lies in 20th Century American fiction. She brings to her study of English a keen love of words and an awareness of the possibilities of language. Her orientation to English centers around the text itself.

In interpreting a story, she refers constantly to the text, reading aloud passages, sometimes several times, to support her points. She prefers literature that is subtle, evocative, yet somewhat ambiguous. For this reason, Colleen prefers Chekhov, Woolf, and Faulkner to Hemingway or D.H. Lawrence.

• ***Joe.*** Joe's discussions of mathematics as a field of inquiry revealed an impressive breadth and depth of knowledge of the discipline. He gave long explanations of what math is all about, interweaving historical and structural descriptions. Historically, according to Joe, mathematics began with two basic operations, counting and measuring (i.e., numbers and geometry). Each of these led to increasingly differentiated and sophisticated systems.

Structurally, he described mathematics as consisting of three branches—analysis, geometry, and algebra—undergirded by logic and foundations. These branches intersect to enrich each other and form subfields such as algebraic geometry. For Joe, all these ideas relate to each other; the different parts of mathematics aren't really so isolated.

As these illustrations make clear, content knowledge is much more than knowing facts. According to the National Board of Professional Teaching Standards (National Board, 1994), teachers in command of their subject understand its substance (factual information as well as its central organizing concepts) and the way in which new knowledge is created, including the forms of creative investigation that characterize the work of scholars and artists. Knowing content as described above is, unfortunately, not enough. We will next look at two other aspects of content knowledge—pedagogical content knowledge and curricular knowledge.

Pedagogical Content Knowledge

Teachers need to understand what makes specific topics easy or difficult—the conceptions and preconceptions that students of different ages and backgrounds bring to a learning situation. They need to be able to develop powerful analogies, illustrations, examples, explanations, and demonstrations to make the subject comprehensible. Teachers also need the ability to reorganize the understanding of learners if misconceptions are present. All of this is referred to by Shulman as "pedagogical content knowledge."

The power of pedagogical content knowledge is illustrated in the contrast between the following two teachers. We previously met Joe, the math teacher. By now also looking at his counterpart, Sharon, we get a sense of the power of pedagogical content knowledge and its direct bearing on a teacher's ability to foster student learning. Joe consistently explained mathematical procedures very deliberately, step-by-step, taking little for granted. His language was unfailingly accurate; he used counterexamples to delimit definitions and also sometimes employed figurative language to explain by analogy.

> Pedagogical content knowledge is also foundational for a constructivist approach to teaching in which learning takes place as students process, interpret, and negotiate the meaning of new information.

In the instructional segment on factoring quadratic trinomials, for instance, he presented one procedure, gave three examples, then showed a variation of that procedure, followed by three more examples. In two other instances, when some students leaped ahead to the answer to a problem, Joe acknowledged their insight but then went back and supplied the intermediate steps for the rest of the class. Several times Joe responded to students' confusion by reteaching an idea or lesson acknowledging aloud that the material was not easy. He also diagnosed individual difficulties by listening carefully; Joe quickly discovered and corrected misconceptions. His extensive knowledge of mathematics was apparent in his teaching in many ways.

When planning, Sharon thought about where the students would have problems and tried to come up with at least one extremely clear example that tied the main concepts together. She also tried to use examples that represented the types of problems that students

would encounter in the homework assignment. But planning for student difficulties and developing clear examples proved more difficult than Sharon expected. Although Sharon recognized the value of being able to provide clear examples, she expressed uncertainty about how to develop that skill; she viewed it as an inherent ability of particular teachers.

> How is it possible to teach students for understanding when teachers themselves do not have that understanding?

When students need help with a problem, she chose to work out the problem for them rather than making the student reason it out. Reflecting on the poor test results in her fourth-period class, Sharon pointed to the diverse ability level of the students, the language barriers, and the social problems of some students.

Joe and Sharon seem to be markedly different in their capacities with pedagogical content knowledge—in their understanding what makes specific topics easy or difficult, in having a battery of examples and counter examples, and in recognizing student misconceptions if present. Sharon seemed to have little insight into the difference between her and Joe's content knowledge and how this aids his effectiveness.

Pedagogical content knowledge is also foundational for a constructivist approach to teaching in which learning takes place as students process, interpret, and negotiate the meaning of new information. The more we expect students to learn for understanding, the more necessary extensive teacher knowledge is and the better able teachers must be in handling student frustration with the approach. For example, students may view teachers initially as hindering the learning process when teachers probe student understanding with difficult cases (Prawat, 1989). Teachers must believe strongly that this initial discomfort is necessary and see this uncertainty and conflict as growth producing for students.

Curricular Knowledge

Curricular knowledge involves an awareness of the programs and instructional materials available (e.g., alternate tests, software, visual materials, laboratory demonstrations, invitations to inquiry) to teach particular subjects and topics at a given grade level. It also implies knowing what students are studying currently in other courses and what has been and will be taught in the same subject area in preceding and succeeding years.

What is the current view of content knowledge held by most educators?

Arnold Arons, professor emeritus at the University of Washington, throughout a distinguished career has tried to understand the

challenge of higher-level conceptual learning at the college level and its transfer to better K-12 science teachers. He suggests too often higher education does not help students develop habits of critical thinking. Rather, students learn that knowledge is memorized assertions, terminology, and facts (Arons, 1985).

Fred Newmann (1988) of the National Center for Secondary Education at the University of Wisconsin believes most teachers have been conditioned to see knowledge as the outlines of introductory textbooks. Paralleling Arons, Newmann also notes that deep inquiry is lacking in both the undergraduate and graduate training of teachers.

Another example comes from the research in mathematics teaching. In a sample of 252 prospective elementary and secondary mathematics teachers, most had not developed meaningful understanding (Ball, 1990). Many were not able to make sense of mathematics and consequently were limited in their ability to explain concepts, procedures, and even terms. Findings like Ball's have the most astounding implications. How is it possible to teach students for understanding when teachers themselves do not have that understanding?

What do students need for success in adult life and how does this relate to content knowledge?

Students who will be workers in the 21st Century must possess deep levels of understanding. Learning organizations will rely on their workers' ability to take perspectives, surface mental models, and construct knowledge. Knowledge can no longer be seen as fixed, held by experts, conveyed in textbooks, and consisting of facts to remember.

Currently research shows that K-12 students, not surprisingly, conceptualize content knowledge much like we do as adults and see it a received knowledge bestowed by experts. Wineburg's (1992) incisive research gives us a concrete look at the content knowledge of our best and brightest students. Wineburg was curious to know how "good students" were learning history, to see what students were like if they were fulfilling most of the recommendations for improving education today. He wanted to look at students who had parental support, studied hard, and enjoyed the subject. He looked at a small sample of eight students who had A averages, studied 2.5 hours per night, and enjoyed history as indicated by taking four years of high school history. These would be dream students by most teachers' standard.

He taught this group of students "think aloud" techniques and interviewed them regarding eight different types of historical information that

If adults do not have a deep understanding, how can they possibly guide students toward that goal?

varied from textbook accounts, a Howard Fast novel, documents, eyewitness accounts, diary entries, and a deposition. All information bore on the incidents surrounding the events at Lexington on April 19, 1775.

Wineburg also used the same interviewing techniques and information sources with eight Ph.D. historians. He found, not surprisingly, that the historians had developed an elaborate understanding and the ability to pose alternative explanations and use supporting evidence. It seemed obvious the historians just knew more history. But what counts as knowing? In some cases, the high school students actually knew more facts about the Lexington incidents than the historians. This caused Wineburg to wonder how the high school students could know so much history and still have such little sense in reading it? Looking more at their ways of knowing was revealing.

Bland, non-voiced history text was seen by students as the trustworthy source. For instance, one student characterized the textbook as "the facts." Another called it "straightforward information," and an "objective account of events". Historians saw the textbook as dead last on trustworthiness.

Students didn't look at sources or attributions. In almost every opportunity, historians first looked for attribution. Students on the other hand usually began with the first word in the upper left and never stopped reading until they reached the last word on the bottom right. For most high school students, text attribution carried no weight.

Also, for most students, reading history was not a process of puzzling about the author's intentions or situating the text in a social world. They saw their task as gathering information with the text serving as the bearer of that information. Given the materials they were supposed to learn, most students did what came naturally—they sat down and learned the material. These students are our best. They are doing what many reports on school reform call for. Will these outcomes serve them well in a complex world?

Content is the vehicle for many of the process-oriented outcomes. However, when students learn history or any other subject in the manner displayed by Wineberg's dream students, we won't have purposeful thinkers, effective communicators, or self-directed learners. Students who are prepared for the 21st Century will see knowing and content more in the form the Ph.D. historians represented it rather in the way that the current best and brightest high school history students did.

What are the staff development inplications related to content knowledge?

The underlying theme throughout this chapter has been that a deep understanding of content knowledge is needed before one can properly address the needs of student learners. The reasoning is: If adults do not have a deep understanding, how can they possibly guide students toward that goal?

Yet staff developers and instructional leaders of any sort find themselves in a difficult spot in today's school culture. A traditional school calendar allows for very limited amounts of time away from children for sustained academic endeavors. Our experiences suggest that most districts have between three and five paid days per year for staff development. If one is lucky, the district may offer released-time opportunities for several full or half days to work in small groups or to attend workshops throughout the year. Summer workshops usually round out the picture—options that exist for those who volunteer on their own time.

In addition, it is also frustrating to most staff developers to realize that every teacher has already accumulated some 30-40 college credits in a major content-area. At approximately 30 hours per credit, this translates into some 900+ hours of content-area training. It is somewhat disheartening to think that this level of intensity in content area coursework has not yielded a richer and deeper understanding for all graduates.

> It is virtually impossible to create and sustain conditions for productive learning for students when they do not exist for teachers.

Therefore, we suggest four areas for consideration in developing a stronger content knowledge base so that teachers can more fully help students construct knowledge and deepen understanding.

1. View curriculum work as staff development. Curriculum work is usually a teacher-oriented activity with leadership from either a curriculum specialist or a designated teacher leader. A typical curriculum committee meets monthly for a year or two to rethink the current guides; in addition, there may be an implementation phase for the changes.

This work is an opportunity for the committee to deepen participants' understanding, to review guidelines from various sources, and to explore what the content area really means and what is worth knowing and teaching. This structured approach to curriculum

work demands well thought out staff development activities which will help teachers rethink content and revise curriculum outcomes, instruction, and assessment. It also offers teachers the experience of constructing knowledge that they will then teach students.

In addition to such study, very powerful professional development experiences are needed which model lessons, assessments, and responses to students. Teachers need opportunities to compare what they are doing with constructivist practices. These experiences must go beyond general theory into practice within a discipline.

Where does one begin in designing this type of staff development in curriculum work? Places to begin are the National Board of Professional Teaching Standards (NBPTS) guidelines and standards disseminated by national professional organizations such as the National Council of Teachers of Mathematics and the National Council of Teachers of English.

• *The NBPTS guidelines.* The National Board of Professional Teaching Standards has several documents available that give educators a sense of the Board's rigorous requirements in the area of content knowledge. A useful document is *What Teachers Should Know and Be Able to Do* (1994). Also many education magazines have included articles such as Bradley's (1994) on the standards and the process that teachers have undertaken when preparing for the Board exams.

• *Professional Organizations.* The work of the National Council of Teachers of Mathematics and its promotion of national standards in mathematics, for example, also create points of discussion and debate. Much change is called for as teachers rethink their own assumptions in relation to the new standards. Likewise, the National Council of Teachers of English offers materials to stimulate dialog about what reading and writing are all about. Both organizations provide helpful resources for curriculum leaders in organizing discussions which cause reflection, debate, and deepening content knowledge.

What might be ways to begin? The leadership of curriculum committees is a key. Leaders must see themselves as staff developers and facilitators. It may be worth beginning a curriculum committee's work with several sessions provided by outside presenters such as college/university staff. Once initial ideas have been unveiled, representatives from each school might be charged with creating discussions based on an article, video, or lesson within departments or teams to cause reflection and rethinking.

Many controversial questions will arise: Should content knowledge be different for college-bound and non-college bound students? Should all students be required to take certain

high school social studies courses or should there be choice? Is the sequence being used the best one? Are all of these topics essential? Often a deep understanding of disciplines causes much doubt in teachers minds as they engage in curriculum work. They wonder if eliminating some content might come back to create problems later. This thinking is driven by seeing knowledge as fixed and believing there are best ways of fitting its elements together (Prawat, 1992).

Examples of teacher change and this ongoing learning and reflection have occurred quite successfully in elementary reading and writing and are presently underway in mathematics. Significant change has occurred in many classrooms, but not without time for questioning, unlearning, processing, and trying out new ideas.

Finally, in tandem with the work of a district curriculum committee, staff development academies and workshops can be tailored to enhance the new learning. Specific expertise can be pulled in at exactly the right time to scaffold staff to the next step. People who have been there can relay their joys and concerns to keep the group engaged. All of this curriculum-related work will need to be ongoing, however, if it is to stay with the spirit of continuous improvement as a community of learners.

Where does interdisciplinary curriculum as a current trend fit into this discussion? It seems most experts in this area agree that discipline-based content knowledge is a prerequisite for good interdisciplinary curriculum development and further that a thorough understanding of the disciplines should be the starting point for all discussions about the nature of knowledge in our schools.

*2. **Develop opportunities for ongoing, on-site professional inquiry and reflection.*** It is virtually impossible to create and sustain conditions for productive learning for students when they do not exist for teachers (Sarason, 1990). Teachers need opportunities for ongoing dialog with colleagues. They need time to develop professional relationships that nurture and stretch them. They need environments that foster a sense of community where learning is the norm and growth is not an option.

"Events" with big name speakers serve to introduce topics and create awareness, but different formats are necessary for deepening understanding of content and pedagogy. Some of those formats include mini-courses, peer coaching, team planning, action research projects, and/or released time by grade level or department.

"Events" with big name speakers serve to intro-

Creating conditions that support continuous learning is the challenge.

duce topics and create awareness, but different formats are necessary for deepening understanding of content and pedagogy. Some of those formats include mini-courses, peer coaching, team planning, action research projects, and/or released time by grade level or department. These formats are dependent on planning at the school site so that organizational issues can be addressed.

Another form of on-the-job support for teachers is the use of teacher specialists whose role is to co-plan, co-teach, and generally serve as a resource to teachers. For example, math, drama, or language-arts specialists can contribute immensely to a teacher's content understanding by regular co-planning, modeling lessons, discussing what to delete from curriculum and why, and challenging individual students to deeper understanding. This staff development approach has made dramatic differences in many cases, probably because the modeling and coaching experiences are directly related to daily decisions of the teacher.

Finally, a completely new option is being developed as an outgrowth of the Ways of Knowing conference held in 1993 in Rochester, Minnesota. The Minnesota High Success Consortium has begun working with private and public teacher education programs in Minnesota to develop an alternative Master's program. These unique, cohort-based learning communities use the NBPTS propositions as a context in which teachers review current research-based pedagogy and their own classroom practices. It is anticipated that these two-year, weekend-based programs will position teachers to do well if they chose to become Board certified.

3. Collaborate with higher education and community partners. Academies that are supported by broad-based community partnerships are beginning to make significant differences in classrooms. We are familiar with one such partnership in our area—the Washburn Academy for math and science education—which has been spearheaded by community members and educators working in collaboration.

In this partnership, universities, public school staff, medical facilities, and community leaders have joined forces to provide an intensive one-week academy for improving instruction in math and science. The week-long focus on practical teaching strategies in line with the new national standards has been valued by teachers and administrators and is resulting in change in classroom teaching and learning.

This school-community link holds other possibilities for expanding content knowledge as well. What if a non-educator mathematician or scientist were asked to serve as a peer coach?

Job shadowing is another way of reflecting upon the content. Would teachers have a different view of content if they knew how it would (and would not) be used in various jobs? Similarly, mentors from the community who hold similar content-area interests could be paired with teachers to help them reflect on what, why, and how content is being presented to students.

4. Show and experience results. Too often staff development initiatives come without any data to support their effectiveness. Significant impact on student learning should be expected and documented if teachers are to invest time in rethinking their own content. This is perhaps best accomplished through case studies and action research. Districts could support teacher research with grants. Action research findings could be shared with parents and community members as a culminating district or school project.

Summary

Teachers' in-depth content knowledge must be seen as essential if teachers are to teach so that students can truly "construct" knowledge and apply it to real-life problems. As we begin to contemplate the learning challenges faced by teachers in obtaining deeper understanding in content domains, we must pay attention to school culture. Other chapters in this book have referred to the need for schools to work as learning organizations. As individuals in a well functioning learning organization, teachers would model for their students how to learn. On-the-job learning will be necessary. Creating conditions that support continuous learning is the challenge.

References

Arons, A. (1985). Critical thinking and the baccalaureate curriculum. *Liberal Education, 71*(2), 141-157.

Ball, D.L. (1988). *Knowledge and reasoning in mathematics pedagogy: Examining what prospective teachers bring to teacher education.* Unpublished doctoral dissertation., Michigan State University, East Lansing.

Ball, D.L. (1990). The mathematical understandings that prospective teachers bring to teacher education. *Elementary School Journal, 90*(4), 449-460.

Ball, D.L., & McDiarmid, G.W. (1990) . The subject matter preparation of teachers. In W.R. Houston (Ed.), *Handbook of research on teacher education* (pp. 437-449). New York: Macmillan.

Beane, J. A. (1995). Curriculum integration and the disciplines of knowledge. *Phi Delta Kappan, 76*(8), 616-622.

Bloom, B.S. (Ed.). (1956). *Taxonomy of educational objectives, Vol. 1.* New York: David McKay.

Bradley, A. (April 20,1994). Pioneers in professionalism. *Education Week,* pp. 18-27.

Mosenthal, J.H., & Ball, D.L. (1992). Constructing new forms of teaching: Subject matter knowledge in inservice education. *Journal of Teacher Education, 43*(5), 347-356.

National Board of Professional Teaching Standards. (1994). *What teachers should know and be able to do.* Detroit: Author.

Newmann, F.W. (1988). Can depth replace coverage in high school curriculum? *Phi Delta Kappan, 69*(5), 345-348.

Prawat, R.S. (1989). Teaching for understanding: Three key attributes. *Teaching and Teacher Education, 5*(4), 315-328.

Prawat, R.S. (1992). Teachers' beliefs about teaching and learning: A constructivist perspective. *American Journal of Education, 100*(3), 354-389.

Sarason, S.B. (1990). *The predictable failure of school reform: Can we change the course before it's too late?* San Francisco: Jossey-Bass.

Secretary's Commission on Achieving Necessary Skills. (1991). *What work requires of schools: A SCANS report for America 2000.* Washington, DC: U.S. Department of Labor.

Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher, 15*(2), 4-14.

Shulman, L. (September 1987). Assessment for teaching: An initiative for the profession. *Phi Delta Kappan, 69*(1) 38-44.

Wineburg, S.S. (1992). Probing the depths of students' historical knowledge. *Perspectives* (American Historical Association Newsletter), 30(3),19-24.

Zeichner, K., & Tabachnik, B. (1981). Are the effects of university teacher education washed out by school experience? *Journal of Teacher Education, 32*(3),7-11.

About the Authors

Randy Schenkat is the director of the Winona Council for Quality in Winona, Minnesota. He has 20 years of experience as an educator from the primary grades to higher education. His principal focus has been on staff development and organizational change in meeting the needs of hard-to-teach students. Address correspondence to Randy Schenkat, 1419 Conrad Dr., Winona, MN, (507) 452-7168, (e-mail: schenkat@luminet.net).

Kathie Tyser is currently the staff development coordinator in La Crosse Public Schools, Hogan School, 807 East Avenue South, La Crosse,WI 54601, (608) 789-7639, (e-mail: ktyser@sdlax.k12.wi.us). She has worked in that capacity since 1985.

Chapter

8

Putting It All Together: Integrating Educational Innovations

Thomas R. Guskey

At no other time in the history of education have there been more new ideas and innovations available to educators. Administrators and teachers who are planning school improvement programs today can choose among an exceptionally wide variety of models and strategies. Each of these options promises to improve student learning and enhance the quality of education. At the same time, each represents a somewhat different vehicle to use on the road to educational excellence.

A number of reasons have been offered to explain this proliferation of innovations in education. Some observers suggest that entrepreneurial factors are the principal cause. They argue that public pressure for better results has left educators desperate to find new ways to improve student learning. As a result, many are willing to invest large amounts of money in new programs, especially those that promise quick-fix solutions to sticky educational problems.

Opportunistic entrepreneurs have responded by developing scores of educational strategies and materials designed specifically to appeal to pressured educators. Thus, according to this view, it is financial reasons, not educational ones, that are chiefly responsible for the myriad of educational innovations "on the market" today.

While there is little doubt that entrepreneurial factors are at work, I believe a stronger contributing factor behind the growing number of innovations in education is advances in our understanding of teaching, learning, and schooling processes. Researchers are constantly discovering new knowledge about how individuals learn, how learning can be enhanced, and how schools can be structured better to facilitate learning. As this knowledge base expands, new types of expertise, new forms of pedagogical practice, and new approaches to schooling are needed by educators at all levels.

These new approaches often take the form of school improvement innovations and frequently include curricular, instructional, and/or assessment materials designed to facilitate implementation. I believe, therefore, that the multi-

tude of these modern innovations available to educators is a positive development, stemming primarily from unprecedented growth in the professional knowledge base of education.

A quick analysis of the most popular school improvement innovations in education today shows that they share several characteristics. All seek to provide better learning opportunities for students so that more can meet with learning success. Most innovations also can be adapted for use in various types of districts, in schools of different sizes, at any grade level, and in almost any subject area. What is more, all have numerous advocates eager to testify that a particular strategy does, indeed, improve educational outcomes, although the theoretical and research foundations of each differ greatly in strength.

Selecting School Improvement Innovations

The number and kinds of school improvement innovations that school leaders choose to include in an improvement program vary from district to district and from school to school. Some center their plans on the comprehensive implementation of a single innovative so that their efforts can be well focused and clearly articulated. The vast majority of districts and schools, however, include a combination of innovations in their improvement programs. While the educational leaders in these settings may be aware of the need for coherence among their improvement initiatives, they are sensitive to the political risks of "putting all their eggs in one basket." They also may recognize that no single innovation is likely to solve the wide array of problems schools typically face.

School leaders also vary in the criteria they use to select innovations for an improvement program. Occasionally they employ a thoughtful and broad-based decision-making process. In such cases, a set of innovative strategies is selected after careful consideration of pertinent evidence, such as results from a faculty needs survey, scores from a comprehensive student assessment program, or data gathered through a formal, internal evaluation. More often, however, innovations are selected on the basis of personal preferences or impressions of a few key individuals. The style of presentation or the personal appeal of the pur-

> At no other time in the history of education have there been more new ideas and innovations available to educators.

veyor of an innovation can sometimes influence decision makers as much as the characteristics of the innovation itself (Abrami, Leventhal, & Perry, 1982).

Putting the Innovations to Work

Once they have chosen a set of improvement innovations, school leaders generally turn their attention to implementation. To begin, they must allocate substantial funds to purchase the necessary materials and to hire experts to introduce the innovations. In addition to the financial burden, each innovation also requires considerable amounts of time for initial staff development and for essential follow-up activities. Faced with limited resources, districts and schools can seldom implement their selected innovations all at once.

As a result, most school improvement programs are typically implemented incrementally, one innovation this year, another next year, and so on. Each year an expert is invited to or recruited from the district to introduce staff members to a particular strategy. A small group of teachers and administrators is trained in the strategy's use, and then follow-up sessions are scheduled to support implementation efforts during that school year. This step-by-step approach assumes that teachers and administrators will assimilate each strategy as it comes along, add it to their repertories of professional skills, and consequently improve their work with students.

Unfortunately, current evidence indicates that improvement programs implemented in this manner rarely bring any sort of lasting improvements (Huberman & Miles, 1984; Latham, 1988; Loucks-Horsley et al., 1987). One reason for this failure is that practitioners often need more than one year to grow comfortable with any change. For the majority of teachers and administrators, the first year of implementation is a time of trial and experimentation.

In particular, if the new strategy requires the use of unfamiliar practices, a great deal of effort goes into *adjusting to the innovation and adjusting it to fit* the conditions of particular classrooms and school contexts. Berman and McLaughlin (1976, 1977) refer to this process as "mutual adaptation" and recommend that practitioners have an extended period of time to work through this difficult phase. Thus, if support and follow-up activities are withdrawn after a year in order to devote resources to yet another innovative strategy, the first strategy's true effects are not likely to be realized by many teachers or administrators, nor will they reach many students.

Practitioners, on the other hand, will be acutely aware of the costs of the first strategy in terms of the time and effort its implementation required.

A small number may perceive its potential benefits, but without direct evidence of positive effects on students, very few indeed will persevere to refine their use of the strategy (Guskey, 1986). Instead, many will abandon their efforts and return to the old familiar strategies they used in the past.

A second reason the incremental approach fails to yield long-term improvement is that practitioners who experience support and follow-up for a year or less may come to view the innovation as an isolated fad. Most will see no relation between the current focus and programs that came before or those that may come afterward.

For these reasons, experienced teachers and administrators often shun new programs. They have learned that the present innovation will be gone in a year, only to be replaced by yet another bandwagon (Latham, 1988). In fact, it is not unusual to hear practitioners refer to the staff-development program topic of the moment as TYNT, for "This Year's New Thing." And cynics know, of course, that TYNT is bound to be different from LYNT, which was "Last Years New Thing." Veteran teachers and administrators frequently calm the fears of their less experienced colleagues who express concern about implementing a new strategy with the advice, "Don't worry; this too shall pass."

Our jack-of-all-strategies-master-of-none pattern not only obscures improvement and provokes cynicism. Sadly, it also imposes a sense of affliction. Too often, practitioners come to see all innovations as trials they must endure in a futile attempt to cure what uninformed outsiders perceive as the ineptitude of educators. Such failures are further amplified by the mismatch between "real needs" and "proposed solutions."

Integrating Innovations

What is needed today even more than extended support and follow-up is a precise description of how to integrate a collection of improvement programs into some kind of coherent framework that matches the systems identified improvement needs. It is difficult enough to learn the particular features of the individual programs, let alone figure out how they can be used together. Furthermore, because no one innovation is totally comprehensive, many problems will remain unsolved. It is only when several strategies are carefully and systematically integrated that substantial improvements in learning become possible.

Too often, practitioners come to see all innovations as trials they must endure in a futile attempt to cure what uninformed outsiders perceive as the ineptitude of educators.

Ideally, the purveyors of the various innovations would lead the way to a judicious, methodical synthesis of the various strategies. In presentations and demonstrations, they could show how the strategies they advocate can be used in conjunction with others, especially those with which a district's or building's staff are already familiar. They could describe how the others complement the ones they favor, then suggest practical, efficient, and manageable ways for teachers and administrators to combine and integrate them.

What is needed today even more than extended support and follow-up is a precise description of how to integrate a collection of improvement programs into some kind of coherent framework that matches the systems identified improvement needs.

Although this ideal is realized occasionally (see the February 1990 special issue of *Educational Leadership*—"Connections," 1990; Guskey, 1988, 1990a; Mevarech, 1985), it seems unlikely to become common practice. One reason is that many of the strongest advocates of singular innovations are so deeply involved in the ongoing development and refinement of their particular ideas. Most work extensively with school districts on program implementation, some participate in efforts to improve and refine their ideas, and a small number are engaged in research studies to determine how effective their strategy is under various conditions. As a result, few have or take the time to develop the deep understanding of other innovations necessary for suggesting how to synthesize them for use in schools or classrooms.

Further, an underlying sense of competition among the proponents of different strategies often hinders efforts to integrate. With limited funds and time for staff development, school leaders may have to choose among innovations. Consequently, some presenters emphasize the strong points of their strategy and what they regard as weaknesses in the others in order to enhance "sales." They are not inclined to concentrate on how different strategies can be combined for fear this might diminish the use of theirs. Unfortunately, this rivalry promotes a separatist view of the innovations and increases the frustration and cynicism of practitioners.

If specific ideas on how the various innovations can be integrated does not come from their more fervent advocates, from where will it come? I believe it will have to come from the same team of administrators and teachers who developed the district or building improvement program and who choose the set of innovations to be included in that program. It was this belief, and my absolute confidence in the importance of such integration for meaningful improvement, that led to the development of this chapter.

Creating a Framework for Integration

To aid school leaders in their efforts to synthesize the different innovations that constitute their improvement program, the following five guidelines are offered. These guidelines are not a comprehensive formula for improvement. Rather, they should be taken as a frame of reference for addressing issues crucial to the success of integrating any combination of innovations.

1. *All innovations in the improvement program should share common premises and goals.* Most of the innovative strategies school leaders include in their improvement programs are specifically designed to increase learning and enhance the well-being of students. Although many are based on different philosophical perspectives and focus on different aspects of teaching, learning, and schooling, all presume that learning can be improved and that educators strongly influence learning. Furthermore, most emphasize that when students experience greater success in learning, they feel better about learning, better about themselves as learners, and are more highly motivated to continue learning in the future. Explicit acknowledgment of these shared premises and common goals is a necessary first step in bringing about their systematic integration.

> If specific ideas on how the various innovations can be integrated does not come from their more fervent advocates, from where will it come? I believe it will have to come from the same team of administrators and teachers who developed the district or building improvement program and who choose the set of innovations to be included in that program.

2. *No single innovation can do everything.* Despite the claims of some advocates, no single innovation will solve all the complex problems facing educators today. Therefore, a highly effective improvement program must note the different strengths of various innovations and employ a combination of strategies that will positively influence different aspects of teaching, learning, and schooling.

The process of educational improvement is similar to that of building a new house. When engaged in the complex process of constructing a new house, one frequently needs to drive nails. A hammer, of course, is an excellent tool for that task. If the only tool one has is a saw, however, this relatively

simple task becomes extremely difficult. A saw is not a very good tool for driving a nail. But in building the new house one also needs to cut boards. If the only tool one has is a hammer, again this simple task becomes nearly impossible. A saw is a necessary tool for that task.

Similarly in educational improvement, the complexity of the process requires a variety of tools. One alone will not serve all purposes well. School and classroom contexts differ, as well as the needs within those contexts. To be effective at any level of education, practitioners must develop their skills in using a combination of tools or innovations, each for the purposes for which it is most appropriate.

Despite the claims of some advocates, no single innovation will solve all the complex problems facing educators today. Therefore, a highly effective improvement program must note the different strengths of various innovations and employ a combination of strategies that will positively influence different aspects of teaching, learning, and schooling.

3. *The innovations in the improvement program should complement each other.* The complementary nature of innovations must be emphasized and constantly reinforced if practitioners are to understand how to integrate them and how to translate that synthesis into classroom and schooling practice. Whenever presenters introduce a new program, they should illustrate how it ties in with the ones introduced earlier.

Of course, differences between programs should be pointed out, particularly points of disagreement. But attention needs to move beyond simple comparative analyses and toward practical syntheses. The compromises necessary to attain such a synthesis are far more likely to enhance the effectiveness of each program than to detract from any one.

4. *All innovations need to be adapted to individual classroom and building conditions.* Few practitioners can take what they have learned from staff development, move directly into the classroom or school building, and begin employing the new program with success (Crandall, 1983). Educators need time to experiment and work through the process of mutual adaptation.

Support during this period of adjustment is critically important, and that support must be extended beyond the first year of implementation (Guskey, 1986; Loucks-Horsley et al., 1987). Teachers and administrators alike need ongoing guidance and direction to adapt the program to their needs while still maintaining its fidelity. Without the necessary guidance and support, the

innovation is apt to be implemented poorly or incompletely, and improvements will then be minimal.

5. *The results achieved with a well conceived combination of innovations are likely to be greater than those attained using any single one.* Most of the popular innovations in education today are complementary in nature. Using a combination of them, therefore, is likely to prove very powerful. In fact, current research evidence suggests that when a combination of programs is employed, each addressing a different aspect of the teaching, learning, or schooling process, the results can be additive.

That is, if one innovations is in place and another added, the benefits of the new program do not duplicate those of the established one but, rather, add to them (Bloom, 1984; Walberg, 1984). For example, when mastery learning and cooperative learning are used together in a positive school culture that supports their implementation, results are most impressive (Guskey, 1990a; Mevarech, 1989).

> Few practitioners can take what they have learned from staff development, move directly into the classroom or school building, and begin employing the new program with success.

Of the five guidelines offered, this is probably the most crucial and the most neglected. If the effects brought about by different programs were not additive, the incentive to use them in combination would be far less compelling. It remains our challenge to determine the optimal combinations for particular contexts and to implement them in ways that give them the greatest chance to produce their best results (Guskey, 1994).

Some Examples

Space precludes a full treatment of all the different ways any particular collection of improvement innovations might be integrated. Besides, several recent journal articles do this well, and there is no need to duplicate those efforts. The February 1990 issue of *Educational Leadership,* for example, was devoted in its entirety to "Connections" among such programs as critical thinking and mastery learning (Arredondo & Block, 1990), cooperative learning and mastery teaching (Davidson & O'Leary, 1990), and mastery teaching and the writing process (Weber, 1990).

I would like to describe, however, two examples of frameworks for integrating innovations that many educators have found particularly useful in their work. A third example developed by Fullan and Hargreaves (1991) is being used in many Canadian schools and they are finding it to

be a useful integrative tool as well.

A Learning Framework for Integration

The first of these frameworks was developed by Marzano, Pickering, and Brandt (1990). It is based on various dimensions of learning and focuses on the classroom, curriculum, and instruction. As described earlier, an overriding concern among all of the innovations described in this framework is that all students attain certain learning outcomes. At the same time, different innovations focus on different dimensions of the teaching, learning, and schooling process. By recognizing the dimensions of learning a particular innovation stresses, school leaders can pull together innovations that collectively stress those dimensions most needed in that setting.

> Support during this period of adjustment is critically important, and that support must be extended beyond the first year of implementation.

Marzano and his colleagues propose that school improvement innovations can address five different kinds of student thinking.

1. *Thinking to develop positive attitudes and perceptions toward learning,* such as attitudes about self and climate, self and others, and self and tasks.
2. *Thinking to acquire and integrate knowledge,* specifically the mental process of constructing meaning, organizing content, and storing or practicing that content.
3. *Thinking to extend and refine knowledge,* involving the mental operations of comparing, classifying, inducing, deducing, analyzing errors, constructing support, abstracting, and analyzing value.
4. *Thinking to make meaningful use of knowledge* through such processes as oral discourse, composing, problem solving, decision making, and scientific inquiry.
5. *Thinking to develop desirable habits of mind,* especially critical, creative, and self-regulatory thinking skills.

This "Dimensions of Learning" framework has been used by Marzano and his colleagues to compare a host of school improvement innovations. Included in their comparisons are programs such as cooperative learning, mastery learning, mastery teaching, and direct instruction, as well as teacher expectations (e.g., TESA—Kerman, Kimball, & Martin, 1990), critical thinking (e.g., Tactics for Thinking—Marzano & Arrendondo, 1986), and learning and teaching styles (e.g., 4MAT—McCarthy, 1987). Table 1 shows Marzano and his colleagues' comparisons of these programs.

Two observations regarding the comparisons in this figure are in order. First, the ratings of the programs included in the article are probably conservative. Marzano and his colleagues' rat-

ings are based on early writings about each program and, in many cases, do not reflect current emphases in the various dimensions of learning that these programs are now trying to address. For example, concern with thinking processes that extend and refine knowledge and that use knowledge meaningfully are more central to cooperative learning, mastery learning, mastery teaching, and direct instruction than was once the case.

A second and more obvious observation is that many popular programs are not rated by Marzano and his colleagues. However, this could be easily be achieved. Doing so also should prove a valuable activity and should make the dimensions of learning set forth in this framework more meaningful.

As a result of insights gained through the Dimensions of Learning framework, others have begun to explore how various programs might be combined so that the social and work aspects of school learning support each other rather than interfere (see Block, Everson, & Guskey, 1995). Recent experiments in Missouri combining the strategies of performance-based education, curriculum alignment, mastery learning, and cooperative learning show the potential of self-climate/other/task combinations (Guskey & Block, 1991; Guskey, Passaro, & Wheeler, 1991).

A Teaching Framework for Integration

A second framework that has been found to be especially helpful in a variety of contexts uses "teaching" ideas to integrate particular innovations. This framework was developed by Guskey (1990b) and is built around what are considered to be the five major components in the teaching and learning process. These components include a specification of learning objectives, instruction, enroute or "formative" learning assessment, learning feedback and corrective/enrichment instruction, and final or "summative" learning evaluation. The teaching framework set forth in this framework uses these components as a basis on which to compare the relative strengths of selected school or instructional innovations. Obviously, school leaders could do likewise for other programs that are not rated.

> We must expect the advocates of a particular program to argue persuasively for the advantages of their approach, but we should press them to be explicit about its limitations, too.

A summary of the major strengths of the programs considered in the original specification of this framework is shown in Figure 1. The following rationale is provided for the framework (Guskey, 1990b):

For example, as part of an excellent guide for developing a school climate conducive to learning, the effective schools

Table 1
Comparison of Selected Programs on the Dimensions of Learning

Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Dimension # 1: Attitudes																				
1. Self and Climate	S	S	S	S	M	-	-	-	-	-	-	-	-	-	-	-	-	M	S	-
2. Self and Others	M	S	S	M	M	-	-	-	-	-	M	M	-	M	-	-	-	M	S	M
3. Self and Task	S	S	M	S	M	S	S	S	S	M	-	-	-	-	-	-	S	S	S	-
Dimension # 2: Acquiring and Integrating Knowledge																				
1. Declarative																				
a. Constructing Meaning	S	M	S	S	S	S	S	S	S	M	-	-	-	-	-	S	M	S	S	M
b. Organizing	S	M	S	S	S	S	S	S	S	M	-	-	-	-	-	S	S	S	M	S
c. Storing	S	-	M	M	S	S	S	S	S	M	-	-	-	-	-	M	S	S	S	S
2. Procedural																				
a. Constructing Meaning	S	M	S	S	M	S	S	S	S	M	-	-	-	-	-	-	-	M	S	-
b. Organizing	S	M	S	S	M	S	S	S	S	M	-	-	-	-	-	S	M	S	M	M
c. Practicing	S	-	M	S	-	S	S	S	S	M	-	-	-	-	-	M	S	S	S	M
Dimension # 3: Extending and Refining Knowledge																				
1. Comparing	-	-	-	-	S	-	-	M	S	S	M	M	S	S	M	M	M	M	S	S
2. Classifying	-	-	-	-	S	-	-	M	S	S	M	M	S	S	M	S	M	M	M	S
3. Inducing	-	-	-	-	M	M	M	M	M	S	M	M	S	S	M	M	M	M	S	M
4. Deducing	-	-	-	-	-	-	-	-	-	M	-	-	S	S	-	-	-	-	-	-
5. Analyzing Errors	-	-	-	-	S	-	-	-	-	S	M	M	S	S	M	-	S	-	-	-
6. Supporting	-	-	-	-	S	M	M	-	M	S	M	M	S	S	M	M	M	M	-	S
7. Abstracting	-	-	-	-	-	-	-	-	M	M	M	M	S	S	M	S	S	M	S	M
8. Analyzing Value	-	-	-	-	-	-	-	-	-	M	-	-	S	S	S	-	S	-	-	S

Table 1, **continued from page 140**

Comparison of Selected Programs on the Dimensions of Learning

Program	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Dimension # 4: Meaningful Use of Knowledge																				
1. Oral Discourse	-	-	-	-	S	-	-	-	-	-	M	-	S	S	-	-	-	-	-	-
2. Composing	-	-	-	-	-	-	-	-	M	M	M	M	-	-	-	-	M	-	-	-
3. Problem Solving	-	-	-	-	S	-	-	-	S	M	S	S	S	M	S	-	S	-	-	S
4. Decision Making	-	-	-	-	S	-	-	-	-	M	M	S	S	M	S	-	S	-	-	S
5. Scientific Inquiry	-	-	-	-	S	-	-	-	-	M	S	-	-	-	-	-	M	-	-	-
Dimension # 5: Habits of the Mind																				
1. Critical	-	M	S	-	M	-	M	-	M	-	S	S	M	S	M	-	-	-	-	M
2. Creative	-	-	M	-	M	-	-	-	-	-	S	S	M	S	-	-	-	-	M	S
3. Self-Regulation	M	-	S	M	M	-	M	M	S	-	S	S	-	M	-	-	S	-	M	-

FIGURE KEY: S = Strong Emphasis M = Moderate Emphasis - = Relatively Little Emphasis

PROGRAM KEY

A **ITIP**. Hunter 1969. 1976. 1982.
B **TESA**. Kerman. Kimball. & Martin 1980.
C **Cooperative Learning**. Johnson & Johnson 1987: Slavin 1983. 1986.
D **Mastery Learning**. Bloom 1971: Block 1971. 1985: Guskey 1985.
E **Models of Teaching**. Joyce & Well 1986.
F **Explicit Teaching**. Rosenshine 1986.
G **Active Mathematics Teaching**. Good. Grouws. & Ebmeier 1983.
H **BTES**. Romberg 1980.
I **Strategic Teaching**. Jones. Palincsar. Ogle. & Carr. 1987.
J **Bloom's Taxonomy: Cognitive Domain**. Bloom. et al 1956.
K **Olympics of the Mind**. Gourley 1981.
L **Future Problem Solving**. Crabbe 1982.
M **Project Impact**. Winocur 1985.
N **Philosophy for Children**. Lipman. Sharp. & Osrenyan 1980.
0 **CoRT**. de Bono 1983. 1985.
P **Strategic Reasoning**. Upton 1961. Upton & Samson 1963.
Q **Tactics for Thinking**. Marzano & Arredondo 1986.
R **The Skillful Teacher**. Saphier & Gower 1986.
S **4MAT**. McCarthy 1987.
T **Teaching Styles and Strategies**. Hanson. Silver.& Strong 1986.

Figure from: Marzano. R.J.. Pickering. D.J.. & Brandt. R.S. (1990). Integrating instructional programs through dimensions of learning. *Educational Leadership*, *47*(5), 17-24.

If school improvement efforts are ever to attain their full potential, educators must broaden their thinking about the way improvement efforts are planned and implemented. To do so, we must first drop the practice of introducing each innovation as an isolated "new idea" without relationship to or regard for other ideas.

model (Brookover et al., 1987; Taylor, 1990) emphasizes the importance of clearly recognized and accepted learning objectives common to all students. Performance-based education (Spady, 1994) also stresses the need to state clearly what students are expected to learn but does not relate objectives specifically to school climate. Instead, performance-based education emphasizes the importance of summative evaluation of performance strictly according to stated objectives. Neither the effective schools model nor performance-based education, however, offers much specific guidance on instructional quality.

Mastery teaching (Hunter, 1979, 1982), on the other hand, helps to clarify the important decisions teachers must make in planning and conducting classroom instructional activities. TESA (Kerman, 1979), too, concentrates chiefly on instruction, since it helps teachers become more aware of the expectations they communicate to their students. But mastery teaching and TESA say little about assessment or evaluation.

Mastery learning (Bloom, 1968; Block, Efthim, & Burns, 1989; Guskey, 1996) focuses on (1) formative assessment to give students regular feedback on their learning progress, and (2) pairing that feedback with high-quality corrective activities for students who need additional assistance or enrichment activities for students who have learned well. But mastery learning is basically neutral with regard to curriculum objectives or instructional format.

Concepts from cooperative learning (Johnson & Johnson, 1991), learning styles/modalities (deBono, 1983; Carbo, Dunn, & Dunn, 1986; McCarthy, 1987), and multiple intelligences (Gardner, 1993) are especially valuable when teachers are planning alternative instructional approaches, especially for corrective or enrichment activities. Though neither cooperative learning nor the learning styles literature offers detailed prescription for evaluation, the data on critical thinking (Costa, 1985; Marzano & Arredondo, 1986) provide several methods for assessing higher level cognitive strategies. (Guskey, 1990b, pp. 13-14)

While some may disagree with these interpretations, this type of analysis and comparisons

of programs' strengths is illustrative of the kind of thinking that is required in integrating educational innovations.

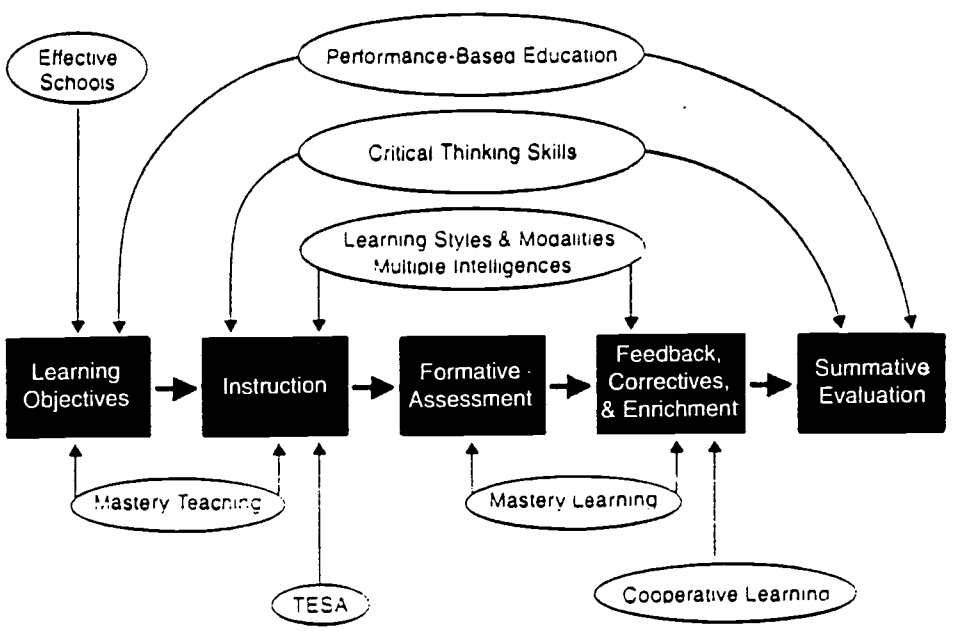
Broadening Our Scope

If school improvement efforts are ever to attain their full potential, educators must broaden their thinking about the way improvement efforts are planned and implemented. To do so, we must first drop the practice of introducing each innovation as an isolated "new idea" without relationship to or regard for other ideas. Throughout all stages of improvement initiatives, we must clearly describe the relationships between existing and new strategies in practical terms. In this way, we can help practitioners at all levels understand that improvement does not necessarily mean *replacement,* but *enhancement.*

Second, we must expect the advocates of a particular program to argue persuasively for the advantages of their approach, but we should press them to be explicit about its limitations, too. Only then can one program's strength compensate for another's weakness.

Third, when new innovations are introduced, we must provide support and follow-up activities

Figure 1
The Principal Strengths of Selected Innovative Strategies



for an adequate period of time. After all, improvement means change, and change is a gradual process, taking place not over a period of days, but months and, in some cases, years (Fullan, 1990, 1991).

Broadening the scope of planning and implementation will not only encourage the integration of innovations but it also enhance opportunities for collegial sharing. When different programs are introduced at different times, not everyone will be doing the same thing at the same time. Practitioners are thus likely to be at very different stages of implementation with regard to any one program. This differential experience can be an advantage: experts in one innovation can serve as excellent models, mentors, and peer coaches for those who are just beginning. When another strategy is considered, the beginner may now become the expert, and so on.

The overarching reason to broaden our thinking about the implementation of new ideas, however, is that a broader view will promote the synthesis of innovative programs. Achieving the optimal integration of innovations will not be easy, but doing so is essential if school improvement efforts are to sustain their momentum, continue to expand, and bring about the kind of results for which the innovations were intended. The primary task that lies ahead, therefore, is not so much to generate new ideas as to integrate them, not so much to find individual ideas that work as to make a collection of ideas that work together.

References

[NOTE: References listed in the program key of Table 1 are also included in this reference list.]

Abrami, P.C., Leventhal, L., & Perry, R.P. (1982). Educational seduction. *Review of Educational Research, 52*(3), 446-464.

Arredondo, D.E., & Block, J.H. (1990). Recognizing the connections between thinking skills and mastery learning. *Educational Leadership, 47*(5), 4-10.

Berman, P., & McLaughlin, M.W. (1976). Implementation of educational innovations. *Educational Forum, 40*(3), 345-370.

Berman, P., & McLaughlin, M.W. (1977). *Factors affecting implementation and continuation. Federal programs supporting educational change, Vol. III.* Santa Monica, CA: RAND Corporation.

Block, J.H. (Ed.) (1971). *Mastery learning: Theory and practice.* New York: Holt, Rinehart & Winston.

Block, J.H. (1985). Belief systems and mastery learning. *Outcomes, 4*(1), 2-5.

Block, J.H., Efthim, H.E., & Burns, R.B. (1989). *Building effective mastery learning schools.* New York: Longman.

Block, J.H., Everson, S.T., & Guskey, T.R. (Eds.) (1995). *School improvement programs.* New York: Scholastic.

Bloom, B.S. (1968). Learning for mastery. *Evaluation Comment, 1*(2), 1-12.

Bloom, B.S. (1971). Mastery learning. In J.H. Block (Ed.), *Mastery learning: Theory and practice* (pp. 47-63). New York: Holt, Rinehart & Winston.

Bloom, B.S. (1984). The search for methods of group instruction as effective as one-to-one tutoring. *Educational Leadership, 41*(8), 4-18.

Bloom, B.S., Englehart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (1956). *Taxonomy of educational objectives: The classification of Educational Goals. Handbook I: Cognitive domain.* New York: McKay.

Brookover, W.B., Beamer, L., Efthim, H., Hathaway, D., Lezotte, L., Miller, S., Passalacqua, J., & Tornatzky, L. (1987). *Creating effective schools.* Holmes Beach, FL: Learning Publications.

Carbo, M., Dunn, R., & Dunn, K. (1986). *Teaching students to read through their individual learning styles.* Reston, VA: Prentice Hall.

"Connections." (1990, Feb.). [Special Issue]. *Educational Leadership, 47*(5).

Costa, A. (Ed.) (1985). *Developing minds: A resource book for teaching thinking.* Alexandria, VA: Association for Supervision and Curriculum Development.

Crabbe, A.B. (1992). Creating a brighter future: An update on the future problem solving program. *Journal for the Education of the Gifted, 5*(1), 2-11.

Crandall, D.P. (1983). The teacher's role in school improvement. *Educational Leadership, 41*(3), 6-9.

Davidson, N., & O'Leary, P.W. (1990). How cooperative learning can enhance mastery teaching. *Educational Leadership, 47*(5), 30-34.

de Bono, E. (1983). The Cognitive Research Trust (CoRT) thinking program. In W. Maxwell (Ed.), *Thinking: An expanding frontier.* Philadelphia: Franklin Institute Press.

de Bono, E. (1985). The CoRT thinking program. In J. W. Segal, S.F. Chipman, & R. Glaser (Eds.), *Relating instruction to research.* Hillsdale, NJ: Erlbaum.

Fullan, M.G. (1990). Staff development, innovation, and institutional development. In B. Joyce (Ed.), *Changing school culture through staff development* (pp. 3-25). Alexandria, VA: Association for Supervision and Curriculum Development.

Fullan, M.G. (1991). *The new meaning of educational change.* New York: Teachers College Press.

Fullan, M.G., & Hargreaves, A. (1991). *What's worth fighting for? Working together for your school.* Ontario: Ontario Teachers' Federation.

Gardner, H. (1993). *Multiple intelligences: The theory in practice.* New York: Basic Books.

Good, T.L., Grouws, D., & Ebmeier, H. (1983). *Active mathematics teaching.* New York: Longman.

Gourley, T.J. (1981). Adapting the varsity sports model to nonpsychomotor gifted students. *Gifted Child Quarterly, 25*(4), 164-166.

Guskey, T.R. (1985). *Implementing mastery learning.* Belmont, CA: Wadsworth.

Guskey, T.R. (1986). Staff development and the process of teacher change. *Educational Researcher, 15*(5), 5-12.

Guskey, T.R. (1988). Mastery learning and mastery teaching: How they complement each other. *Principal, 68*(1), 6-8.

Guskey, T.R. (1990a). Cooperative mastery learning strategies. *Elementary School Journal, 91*(1), 33-42.

Guskey, T.R. (1990b). Integrating innovations. *Educational Leadership, 47*(5), 11-15.

Guskey, T.R. (1994). Results-oriented professional development: In search of an optimal mix of effective practices. *Journal of Staff Development, 15*(4), 42-50.

Guskey, T.R. (1996). *Implementing mastery learning* (2nd ed.). Belmont, CA: Wadsworth.

Guskey, T.R., & Block, J.H. (1991). The Missouri miracle: A success story about statewide collaboration to improve student learning. *Outcomes, 10*(2), 28-43.

Guskey, T.R., Passaro, P.D., & Wheeler, W. (1991). Missouri's Thorpe Gordon School: A model for school improvement. *Principal, 71*(1), 3638.

Hanson, R.J., Silver, H.F., & Strong, R.W. (1986). *Teaching styles and strategies.* Moorsetown, NJ: Hanson, Strong, Silver, & Associates.

Huberman, M., & Miles, M.B. (1984). *Innovation up close: How school improvement works.* New York: Plenum.

Hunter, M.C. (1969). *Teach more faster!* El Segundo, CA: TIP Publications.

Hunter, M.C. (1976). *Improved instruction: Take 10 staff meetings as directed.* El Segundo, CA: TIP Publications.

Hunter, M.C. (1979). Teaching is decision making. *Educational Leadership, 37*(1), 57-60.

Hunter, M.C. (1982). *Mastery teaching.* El Segundo, CA: TIP Publications.

Johnson, D.W., & Johnson, R.T. (1991). *Learning together and alone* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Jones, B.F., Palincsar, A.S., Ogle, D.S., & Carr, E.G. (1987). *Strategic teaching: Cognitive instruction in the content areas.* Alexandria, VA: Association for Supervision and Curriculum Development.

Joyce, B., & Weil, M. (1986). *Models of teaching* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Kerman, S. (1979). Teacher expectations and student achievement. *Phi Delta Kappan, 60*(10), 716-718.

Kerman, S., Kimball, T., & Martin, M. (1980). *Teacher expectation and student achievement: Coordinator's manual.* Bloomington, IN: Phi Delta Kappan.

Latham, G. (1988). The birth and death cycles of educational innovations. *Principal, 68*(1), 41-43.

Lipman, M., Sharp, A.M., & Oscanyan, F.S. (1980). *Philosophy in the classroom* (2nd ed.). Philadelphia: Temple University.

Loucks-Horsley, S., Harding, C.K., Arbuckle, M.G., Murray, L.B., Dubea, C., & Williams, M. K. (1987). *Continuing to learn: A guidebook for teacher development.* Andover, MA: Regional Laboratory for Educational Improvement of the Northeast and Islands.

Marzano, R.J., & Arredondo, D.E. (1986). *Tactics for thinking.* Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R.J., Pickering, D.J., & Brandt, R.S. (1990). Integrating instructional programs through dimensions of learning. *Educational Leadership, 47*(5), 17-24.

McCarthy, B. (1987). The 4MAT system: *Teaching to learning styles with right/left mode techniques* (2nd ed.). Barrington, IL: Excel.

Mevarech, Z.R. (1985). The effects of cooperative mastery learning strategies on mathematics achievement. *Journal of Educational Research, 78*(6), 372-377.

Mevarech, Z.R. (1989). *Learning mathematics in different 'mastery' environments.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Romberg, T. (1980). Salient features of the BTES framework of teacher behaviors. In C. Denham & A. Lieberman (Eds.), *Time to learn* (pp. 73-93). Washington, DC: National Institute of Education.

Rosenshine, B.V. (1986). Synthesis of research on explicit teaching. *Educational Leadership, 43*(7), 60-69.

Saphier, J., & Gower, R. (1986). *The skillful teacher.* Carlisle, MA: Research for Better Teaching.

Slavin, R.E. (1983). *Cooperative learning.* New York: Longman.

Slavin, R.E. (1986). *Using student team learning.* Baltimore, MD: Center for Research in Elementary and Middle Schools, Johns Hopkins University.

Spady, W.G. (1994). Choosing outcomes of significant. *Educational Leadership, 51*(6), 18-22.

Taylor, B.O. (Ed.) (1990). *Case studies in effective schools research.* Dubuque, IA: Kendall/Hunt Publishing.

Upton, A. (1961). *Design for thinking.* Palo Alto, CA: Pacific Books.

Upton, A., & Samson, R. (1963). *Creative analysis.* New York: E. P. Dutton.

Walberg, H.J. (1984). Improving the productivity of America's schools. *Educational Leadership, 41*(8), 19-27.

Weber, A. (1990). Linking ITIP and the writing process. *Educational Leadership, 47*(5), 35-39.

Winocur, S.L. (1985). Project IMPACT. In A. Costa (Ed.), *Developing minds: A resource book for teaching thinking.* Alexandria, VA: Association for Supervision and Curriculum Development.

Reference Note

This chapter is a revised version of "Integrating School Improvement Programs," which is Chapter 21 in J.H. Block, S.T. Everson, & T.R. Guskey (Eds.), *School Improvement Programs,*

About the Author

Thomas R. Guskey (Ph.D., University of Chicago) is a professor, University of Kentucky, Department of Educational Policy Studies and Evaluation, 131 Taylor Education Building, Lexington, KY 40506, (606) 257-8666, (e-mail: guskey@pop.uky.edu).

Chapter

9

Data-Based Decision Making

Jon C. Marshall

The development of a high performance school requires the staff to continually update their knowledge so they can competently engage in the essential processes of schooling. Effective processes are dependent on substantial knowledge bases. Individuals involved in decision making need to understand the organization in which they are working, their job tasks, curriculum content, and how to work with people. This understanding is a continual development process directly associated with staff development.

This chapter examines the importance of what Deming called "profound knowledge" in forming the knowledge base needed to develop high performance schools. This provides the context for looking at procedures for working with data. Then, several graphic techniques for data handling are introduced. They are presented and illustrated as simple to use yet powerful tools for data analysis.

Undergirding the technical concepts presented here is the belief that all educators, including both certified and noncertified staff, are important decision makers. These decision makers need good, reliable data. The process of collecting, analyzing, and presenting information for data-based decision making can be viewed as a staff development activity.

The last 20 years of educational research and evaluation have provided all the information we need to develop high performance schools. As early as the 1970s, Edmonds (1979) argued that we already know all that we need to know to develop quality schools. He further argued that our failure to do what we know is strictly due to politics. We have seen the effective school correlates and the essential schools' postulates validated in study after study. We have seen evidence that certain instructional strategies and staff development methods enhance learning. We have viewed model schools where students are achieving regardless of socioeconomic status.

Unfortunately, when we attempt to replicate these successful models we often fail to achieve the results we had hoped for. This cycle of high hopes followed by eluded dreams has left many

educators with a cynical eye toward change and improvement. While the proven models are important in providing direction for change, we need to be very cautious in copying others and focus instead on developing our own uniqueness.

Schools need to adapt established models to fit their own needs and develop new models to fit unique situations. Each school has its own culture, its students are unique, its particular group of teachers is like no other, and the community it serves and its parents are distinctive. When these unique characteristics are taken into consideration, replication can succeed. Schools can build upon their own unique characteristics to develop into high performance institutions. High quality schools can become the norm through top-down leadership and support for bottom-up development.

Undergirding the technical concepts presented here is the belief that all educators, including both certified and noncertified staff, are important decision makers. These decision makers need good, reliable data.

Profound Knowledge is the Foundation

One aspect of performance improvement—acquisition of knowledge—is essential to the development of high performance schools. According to Deming's (1989) idea of profound knowledge, this knowledge base has the following four components.

1. ***Knowledge of the Organization.*** In an environment supporting change, staff members understand the organization in which they work. They understand the roles different people have in the school and how their jobs interrelate. The third-grade teacher knows and understands what other third-grade teachers are doing, what fourth-grade teachers and second-grade teachers are doing, how secretarial support services work, and how student clubs and activities function.

This knowledge base is a prerequisite to breaking down barriers among departments or other groups and to developing a positive school climate. In a high performance school, the staff works for the betterment of all children. This is accomplished when the staff understands how the system works and how they individually fit within the system. The result is trust building, which is a necessary ingredient in school improvement.

An example of the importance of organizational knowledge is the curriculum development process. Should a district

want to change its curriculum, it could easily go to commercial publishers or other districts to purchase quality curriculum, probably at less cost than it takes to develop one internally. Add staff development to the purchased curriculum and the district is improving education. Or, is it?

The acquisition of curriculum ignores a major benefit of internal curriculum development—the benefit associated with the knowledge of the system which is gained by the staff during the curriculum development process. Teachers from various levels, and often different content areas, work together with administrators and parents. They share expertise. They fight common battles. They debate issues.

When they are finished, teachers have a better understanding of the system in which they are working, including a deeper knowledge of the curriculum developed. Another major benefit of this process is increased trust among the participants and deeper commitment to the implementation of the curriculum developed. Trust and commitment have a ripple effect throughout the system.

2. ***Knowledge of the Job.*** In an effective organization, the staff understands the purposes for their jobs. They have the knowledge base to do their own specific job tasks. Teachers should be generalists so that they can work with the whole child.

Processes and procedures are continually changing. Only a few years ago, computers were the domain of research institutions, now they are basic equipment in most jobs. Computers are used in schools to track students, perform word processing, and enhance student learning. Robotics is the wave of the future. Continuous on-the-job training is necessary to keep current on the changing competencies needed for quality job performance.

As discussed in Chapter 7, staff members need specific content knowledge about their jobs. For teachers this includes content-specific knowledge in areas such as science, reading, or social studies. Content in every field is expanding at tremendous speed. While we cannot hope to read every journal article and keep track of every development, we do need to keep current on the basic trends in our fields of knowledge and to have sufficient content knowledge to guide our students in constructing their own knowledge. Staff need to have the knowledge base to interpret data and events and to predict with confidence conditions, behavior, and performance.

3. ***Knowledge of Variation.*** Variation is normal. In a high performing school, staff members know about the sources of uncertainty in assessing student performance. A goal of a quality school is to develop a

level of stability which allows for predicting outcomes with a high level of certainty. We need to be cautious in displaying elation over small jumps in performance or disappointment with small drops, which both might be random fluctuations. Over time, stable trends can be identified.

4. ***Knowledge of People***. People-related skills are essential to an organization. All school staff members are educators, from the janitor to the principal. Staff members at all levels interact with both children and adults. Sufficient background in psychology and sociology is needed to understand such areas as motivation, conflict, child and adult development, and the influence of culture on development.

The importance of this knowledge is illustrated by a recent visit to a small elementary school housed in an old building located in a low-socioeconomic neighborhood. A short visit to this school revealed a vibrant educational climate with students, teachers, and parents proud of the school and students actively engaged in learning. A hallmark of this school was the pride students took in the facility. It was brightly painted and had no graffiti, and each room was cleaned up by students before they left for the day.

> In a high performance school, the staff works for the betterment of all children. This is accomplished when the staff understands how the system works and how they individually fit within the system.

The school janitor had initiated the Golden Trash Can Award. After meeting established standards, the janitor would present a golden (painted) trash can to the classroom during a special ceremony. All students in the class would sign the trash can during the ceremony. This trash can then became the official trash can for the room for the rest of the school year and was there for all to observe every day. The school janitor displayed an understanding of child psychology, motivation, and positive reinforcement. He was responsible for teaching many children individual responsibility and the importance of responsibility to the group.

Profound knowledge is essential for developing and maintaining high performance schools. Obtaining profound knowledge is an ongoing process requiring both internal and external sources of knowledge. Important here are the internal sources of knowledge—knowledge developed within the system to better understand the organization, processes that work with staff and

153

students within the school, and parent and community involvement.

Several terms have been coined to express this type of knowledge development. The most generic term is *research.* Another term referring to research on field-based programs and processes is *evaluation.* Still other terms used are *action research* and *field research.* While each process has its own professional discipline, the underlying goals of each—to better understand and improve the system of education—are the same.

Development of Data Bases Through Research

The purpose for research within a school organization is to assess and analyze events for the improvement of educational processes. This purpose is shared with program evaluation in the assessment of processes and outcomes of educational innovations.

Some evaluation models focus mainly on process, with the assumption that *quality processes result in quality outcomes.* Other models focus on outcomes, arguing pragmatically that results are what count. Some educators contend that the purpose for evaluative research should be for self improvement, while others assert that it should show others the worthiness of the innovation. The truth is that any or all of these can be important.

Similar arguments have emerged concerning action research. Action research was here long before program evaluation became national interest. Kurt Lewin (1947) proposed action research in the 1940s as a problem-solving method for improving organizations. This proposal was consistent with Deming's early development of profound knowledge as an essential for organizational change.

Action research represented "the application of tools and methods of social science to immediate, practical problems, with the goals of contributing to theory and knowledge in the field of education and improving practice in schools" (Oja & Smulyan, 1989, p. 1). Thus, action research can be thought of as disciplined inquiry to improve organizational quality and performance (Calhoun, 1993), a purpose shared by program evaluation.

Evaluative research is an outgrowth of Lewinian theory which emphasizes improving organizations through disciplined inquiry. Thus, it shares common principles and parallel development with action research. The common assumption is that to systemically improve schools we need to strengthen our knowledge base about the system and operations within the system. Teachers learn how different types of students are reacting to different teaching strategies. Principals analyze the processes and results of detention policies. These

knowledge bases are developed by applying research methods to the practical problems of our schools.

Evaluative and action research can be thought of as staff development activities. People learn from both the processes and outcomes of research. Through disciplined inquiry in our schools we can develop the knowledge base needed to cultivate quality.

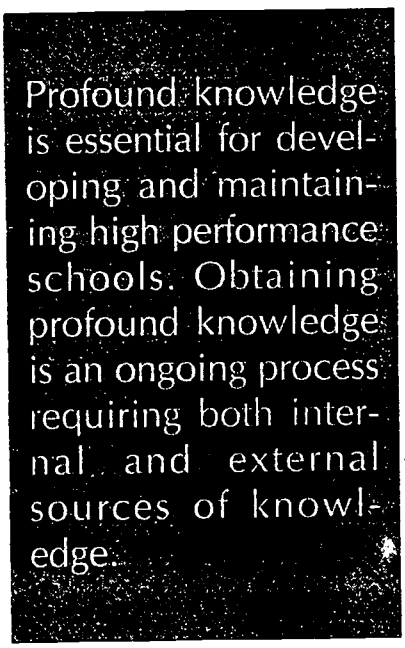
Organizational research can be divided into three levels (Calhoun, 1993): individual, collaborative, and school.

1. ***Individual.*** Individual research is done by one person focusing on a problem of personal interest. It might be a bus driver evaluating the effectiveness of various seating arrangements on the bus. It could be a volunteer wanting to know the impact of his oral reading to young children in the classroom. Or, it could be a teacher wanting to examine a targeted student's reaction to planned reinforcement.

While this individual research is intended to cause personal development and the betterment of students, the research should be shared with others in the system using planned discussion groups and in-house media. This sharing process allows for total system growth.

2. ***Collaborative.*** Collaborative research is done by a group of educators, often in cooperation with a university researcher and staff developer. Each person in this collaborate effort has a specific role.

The university professor is the theorist providing generalizable principles which should result in predictable outcomes. The staff developer is the linkage between the theorist and teachers responsible for providing district support and often helps translate theory into practice. The teacher's role is to implement the experimental strategies for the benefit of students. This is a cooperative team effort to benefit students while engaging in meaningful research. It provides a unique opportunity for teachers to participate in disciplined inquiry.



A multi-year, process writing project conducted in Webster Groves (MO) School District exemplifies collaborative research (Crater, Zeni, & Cason, 1994). Involved in the project were teachers and a staff developer in the district and a professor from the University of Missouri-St. Louis. It was teacher initiated and directed. The staff developer provided district support and the university professor contributed the theory base.

The foundation for the study was implementation of process writing strate-

gies in the classroom. In addition, each teacher selected three to five students having academic difficulty to cultivate and study. The use of action research strategies to work with targeted students added to the process writing theory base. Reported outcomes suggested that the strategies benefitted students. This venture illustrates the potential for generating theory from the classroom with collaborative research.

Evaluative and action research can be thought of as staff development activities. People learn from both the processes and outcomes of research.

3. ***School.*** School-level research involves the total faculty. Such research reflects on a schoolwide problem. While a subgroup within the school might do the research, the focus is a schoolwide issue. To illustrate this point, we can look at a study (Humke et al., 1994) on student detainment as a deterrent for school tardiness. Douglas High School set up a policy of detaining students who were late for class in a detention center for the class period. A group of teachers in a collaborative study decided to evaluate the effectiveness of the policy change.

Data on student tardiness were compared for the third quarter of 1993 (before the policy change) and the third quarter of 1994 (after the policy change). The data showed that while the proportion of students being tardy *decreased,* the mean and standard deviation of tardies *increased.*

These results suggested that the policy change was successful in reducing the number of students being tardy to class. However, it was not successful for chronically late students since their number of tardies increased, resulting in their spending more time out of the classroom. The policy was dropped before the start of the 1994-1995 school year. This example illustrates how evaluative research by staff members can increase their knowledge of the organizational system, resulting in improved data-based decision making.

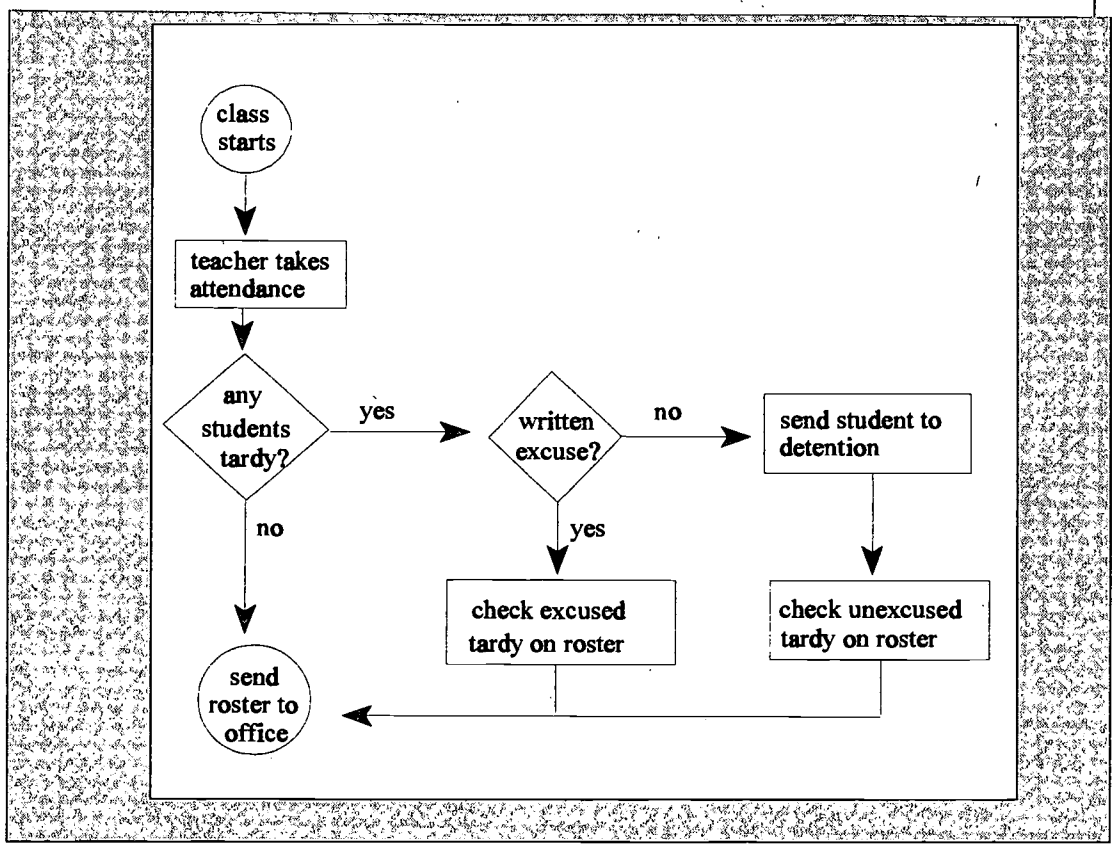
Data-Based Decision Making

Assessment and analysis can serve as a framework for improving quality in schools. Data-based decision making is participatory with all staff members involved in the process. Data-based decision making, as described here, is the process of using research methods to examine schooling for continuous improvement. There are several assumptions that are fundamental to this process:

- Systematic processes for decision making are

156

Figure 1
Flow chart for Student Tardy Policy



better than haphazard processes.

- Decisions based on reliable and valid data are better than decisions made without data.
- The educator doing his or her job is the person most knowledgeable about that job.
- Every person wants to do his or her job well.
- Every person wants to be respected and valued.
- Most problems in schools are not because of the people in the schools, but are instead products of problems within the system.
- Removing root causes results in improved schooling.

Decision-Making Tools

The remainder of this chapter consists of illustrations of practical tools which can be used to help describe data when engaged in problem solving. The techniques can be divided into the following three categories:

1. ***Tools Used For Assessment.*** These tools

157

are used to determine the path that a process will follow or how often an event of interest is happening. Two techniques are commonly used for these purposes.

- *Flowcharts* —used to determine the path that a process will follow. See Case Example 1.
- *Frequency Charts* — used to determine how often an event of interest is happening. See Case Example 2.

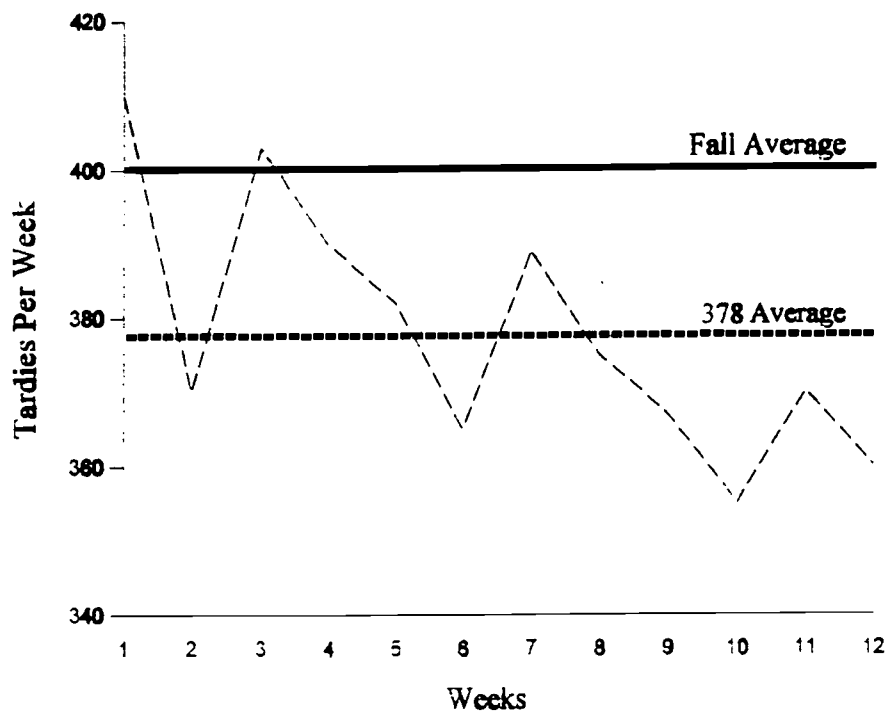
2. ***Tools Used For Analysis.*** These techniques are designed to pictorially view characteristics of distributions including the most typical scores, variability, and relations between two variables. There are two techniques illustrated for describing these characteristics.

- *Histograms*—used to pictorially determine the most typical scores, variability, and the shape of the distribution of scores. See Case Example 3.
- *Scattergrams*—used to pictorially ascertain the relation between two variables. See Case Example 2.

3. ***Tools Used For Both Assessment and Analysis.*** Some techniques for data analysis provide for both assessment of processes or frequency and for the analysis of distributions and relations. Three techniques are portrayed that can be used for these purposes.

- *Pareto Charts*—a bar chart that is used to set priorities for addressing problems. See Case Example 2.
- *Fishbone Diagrams* —a cause-and-effect diagram used to determine the root causes for problems. See Case Example 3.
- *Run Charts* —a line graph used to identify the pattern for a repeated event over time. See Case Example 1.

Figure 2
Run Chart of Student Tardies for 12 Weeks



Examples for Decision-Making Tools

Three case examples are provided here to illustrate how the decision-making tools previously described could be used.

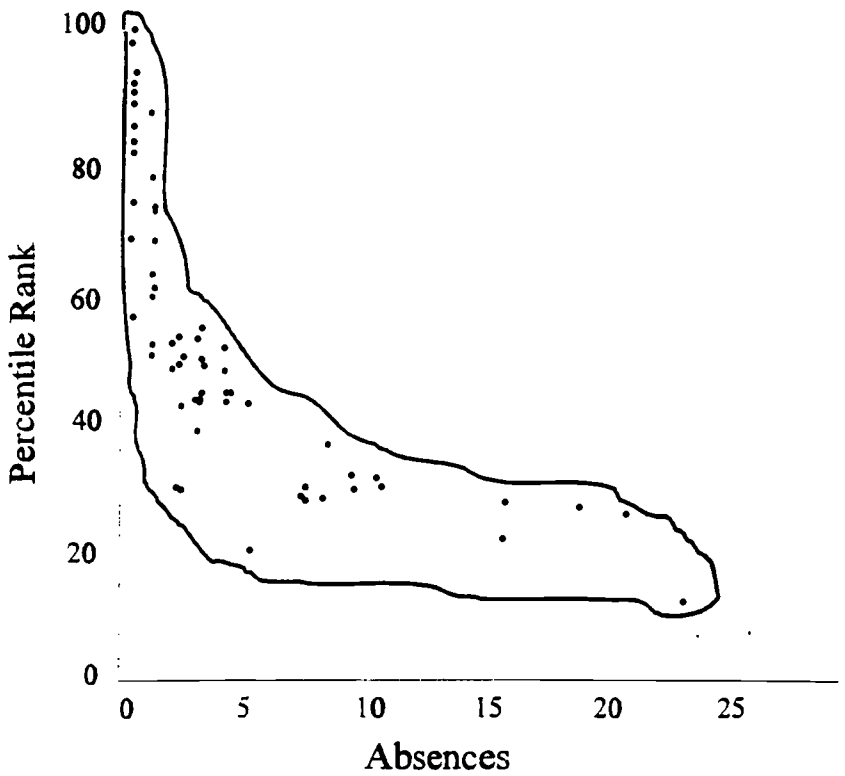
Case Example 1

Student Detention For Being Tardy To Class. *(The techniques illustrated are the flow chart and the run chart.)* Millard High School staff have identified student tardiness as a problem. A committee of five teachers has been established to study the problem and recommend a procedure for dealing with it. The committee met several times during the fall resulting in a recommendation to implement a new tardy policy beginning the second semester of the school year. The policy is illustrated in the Flow Chart (see Figure 1) which was given to all staff members.

As shown in Figure 1, at the start of class the teacher is to take attendance. If *no* students are tardy, the completed student roster is sent to the office. If *any* students are absent, they are checked for written excuses. If tardy students have written excuses, they are marked on the student roster as excused tardies. If *any* tardy student *does not* have a written excuse, the student is sent to student detention for the period and he or she is marked on the student roster as an unexcused tardy. Then, the student roster is sent to the office.

Note how easy this process can be followed in the Flow Chart in Figure 1. The circles show the beginning and ending of the process, the rectangles represent process steps (*teacher*

Figure 3
Scattergram for Student Achievement vs. Absences



159

takes attendance or *send student to detention),* and the diamonds depict decision points (*Are any students absent?* or *Is there a written excuse?*).

Millard High School implemented the new tardy policy for the second semester of the year. To determine the effect of the policy, the committee decided to follow the number of tardies per week for 12 weeks starting the first week in January. The total number of tardies per week were generated by computer by the assistant principal's office. These data are illustrated in the Run Chart (see Figure 2).

The average weekly number of tardies for the fall semester was 400. This served as the criterion measure for comparing results for the spring. It can be seen from the Run Chart that the number of tardies started decreasing almost immediately after implementation of the new policy. Only during Weeks 1 and 3 were the number of tardies greater than 400.

After week three, there were nine consecutive weeks with the number of tardies below 400. Six consecutive changes in a single direction or nine consecutive observations on one side of the criterion line are considered significant. Neither of these happenings would be expected by chance alone. The downward trend of the data in Figure 2 would suggest that the detention policy had significant impact on decreasing the number of student tardies. This also can be seen in the decrease in the mean number of tardies from 400 per week to 378 per week.

The data could be *disaggregated* to determine if the policy had the same impact on important subgroups. The number of tardies could be broken down by gender, race, or socioeconomic level. In addition, the committee might want to determine whether the policy had the same impact on students who had a history of chronically being late to class as it did on students who were only occasion-

Figure 4
Frequency chart of Reasons for Student Absences

Reason for Absence from School	Frequency	Percent
Care for sibling	45	2.09
Go to work	73	3.39
Student illness	135	6.27
Parent sick	87	4.04
Religious activity	356	16.54
Transportation	479	22.26
Travel (with parent)	43	2.00
Truancy	890	41.36
Other	44	2.04
TOTAL	2,152	100.00

ally late to class. Run Charts could be used to compare the patterns for the numbers of tardies among subgroups of students.

Case Example 2

Reasons For Student Absences From School. *(The techniques illustrated are the frequency chart, Pareto chart, and scattergram.)* South Side High School was concerned about its average daily attendance of 65%. A group of staff members decided to examine the reasons for student absences from school as an initial step in developing school policies on absenteeism. First, the staff wanted to see if absenteeism was related to student success in school. Then, they wanted to determine the specific grounds for students missing school.

First Study: Relation Between Absences And Achievement. A random sample of 60 students who had taken the 11th-grade standardized achievement test battery was selected for this study. For each student, the total test score and the number of days absent during the 11th grade were obtained. These scores were graphed using a scattergram (see Figure 3).

Examination of the graph suggests that for students with two or less absences there was no relation between achievement and absences. From two to 10 absences there was a moderate negative relation indicating that the larger the number of absences the lower the achievement level.

Figure 5
Pareto Chart for Reasons for Student Absences

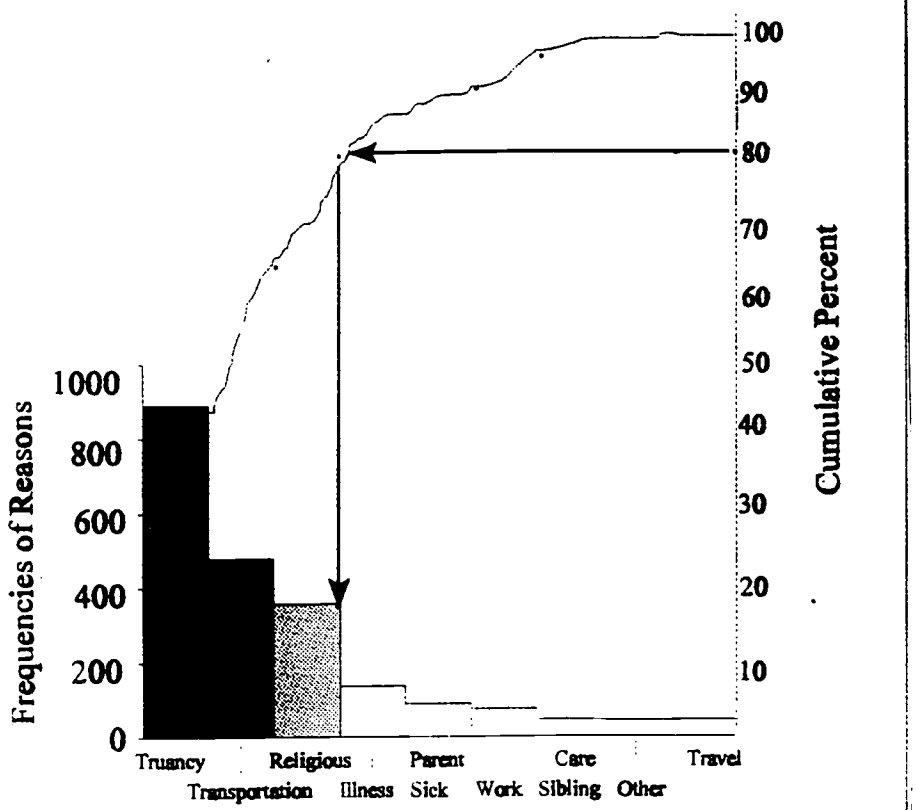
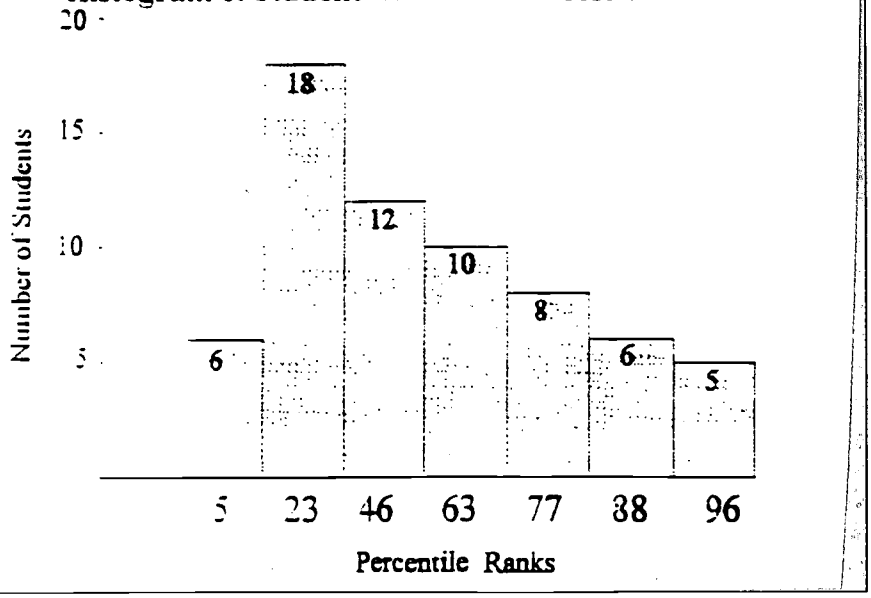


Figure 6
Histogram of Student Achievement Test Scores



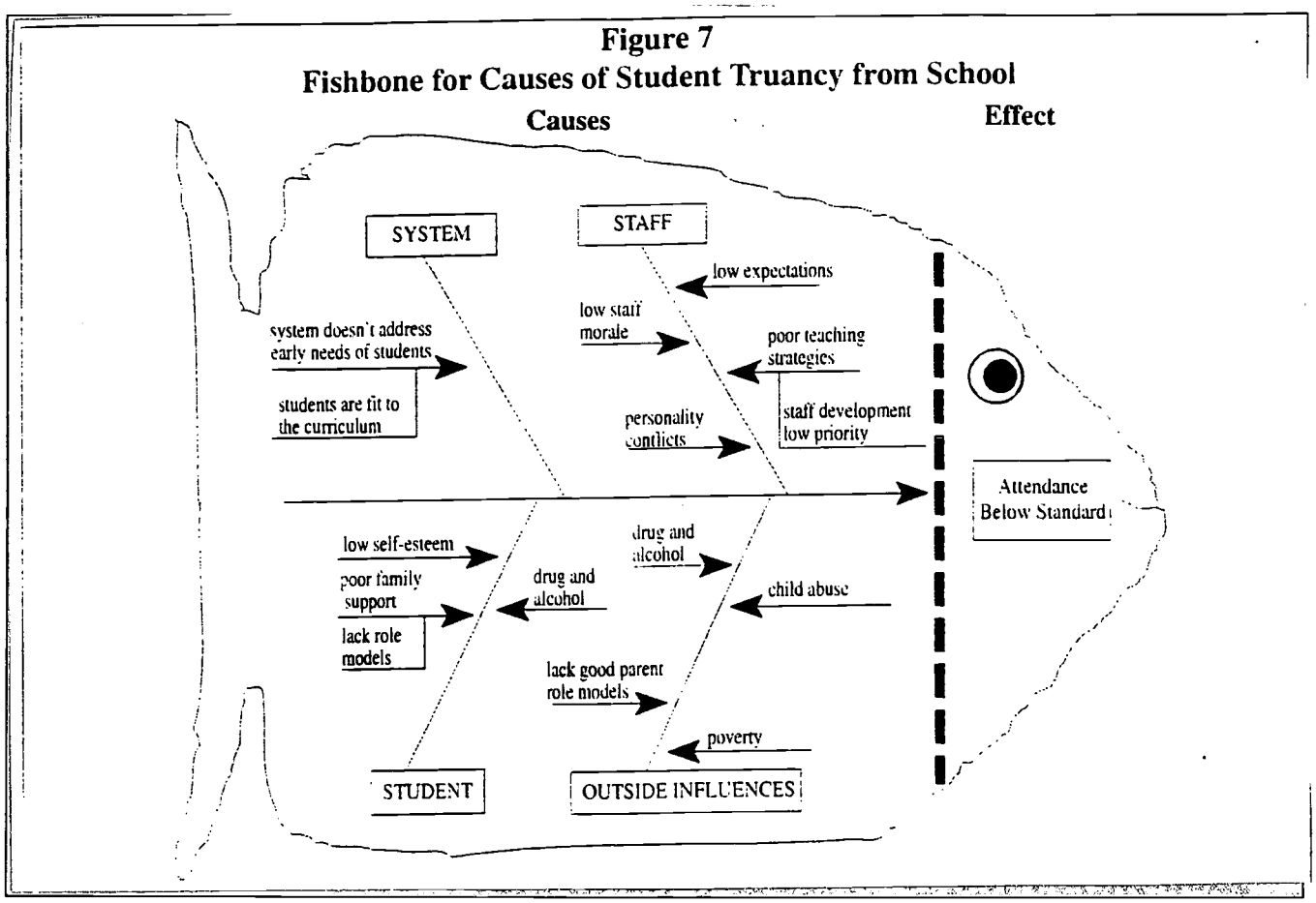
The achievement levels ranged from a high at the 60th percentile with two or three absences a year to a low of about the 20th to 25th percentile for students having 10 absences a year. Above 10 absences, there seemed to be no relation with all the students showing low achievement. To provide the largest potential payoff for students and the high school, the committee then decided to focus planning efforts on the students typically absent three to 10 times a year.

Second Study: Reasons For Student Absences. The study group next examined student absences for a six-week period during the third quarter of the school year. The reasons provided for all absences during this period were grouped into nine categories: student illness, care for sibling, go to work, parent sick, travel (with parent), transportation, religious activity, truancy, and other.

The numbers of times absences fell within each of these categories was recorded in a Frequency Chart (see Figure 4). Once the chart was developed, it was easy for the study group to see that the primary reasons for absences were truancy, transportation, and attendance at religious activities. Other major reasons were student illness, a parent being sick, and going to work.

These data were graphically displayed using a Pareto Chart (see Figure 5) for further insight into the problem. A bar graph showed the frequency of reasons for absences starting with the most frequent reason (truancy) and ending with the least frequent (travel). Note that the scale on the left side of the Pareto Chart was the frequency of reasons for absence from school represented by the bar graph. The scale on the right side of the Pareto Chart was the cumulative percent for the reasons ranging from 0 to 100. The scale was used to read the line graph starting at the cor-

Figure 7
Fishbone for Causes of Student Truancy from School



ner of the truancy bar with 41% and moving to transportation with 63% (41% truancy + 22% transportation from Figure 4) and so on.

The study group decided to focus on those reasons for absences that accounted for 80% of the absences from school: first, truancy from school; second, transportation to and from school; and third, student involvement in religious activities during school hours.

Case Example 3

Causes For Student Truancy From School. *(The techniques illustrated are the histogram and the fishbone chart.)* Armed with the data illustrated in Case Example 2, the study group from South Side High School reported their findings to the total staff at a general meeting. The staff established three committees to further study the problems and recommend policy changes: Committee 1: determine the causes for student truancy; Committee 2: determine transportation problems

resulting in student absences; and Committee 3: determine reasons for conflicts between religious activities and the school schedule.

Once the causes and reasons for the identified problems were determined, the committees could then identify possible solutions for the problems. To illustrate the process, we will examine the data analyses completed by Committee 1 as they examined the reasons for student truancy.

The committee decided to look at two types of information. First, based on the relation found between achievement and absences (see Figure 3), it decided to examine the achievement levels of the 11th graders who were truant one or more times. Second, the committee decided to use a Fishbone Chart to identify the causes for student truancy.

First Study: Achievement Levels for Truant Students. The committee used a histogram (see Figure 6) to examine the distribution of standardized achievement test scores for 11th grade students who were truant at least once during the year. Sixty-five students were identified as truant. Standardized test battery total scores for these students were obtained through the school's central computer file.

For the truant students, the achievement test scores were positively skewed with the most frequent scores between the 20th-30th percentiles and then trailing off as the percentiles got higher. There were no students above the 80th percentile. These data verified that the truant students had low achievement levels with most of them having scores below the 40th percentile. Thus, overall achievement level could be used to identify target students for intervention.

> Staff in schools that are good learning organizations use data to strengthen the profound knowledge needed for problem solving and decision making which results in performance improvement.

Second Case Study: Causes for Truancy. The committee held several meetings to probe the causes for truancy. This process required lots of patience to search for the fundamental causes (Abernethy & Serfass, 1991). Four general categories for classifying reasons for truancy were identified (see Figure 7): system causes, staff-related causes, student related causes, and outside influences.

These categories represented the various forces on the school. Brainstorming and other

group consensus procedures were used to identify the reasons and subsequent causes for student truancy. For each cause given, the team had to ask "Why?" over and over again until the root cause was discovered. The identified causes were connected to the central (fishbone) line in Figure 7. Through examination of the final Fishbone Chart, nine reasons for student truancy were identified:

1. System Problems
- Data systems and curriculum were not aligned to the needs of the students.
- Students were not challenged by the curriculum and how it was implemented (also A Staff Problem).

2. Staff Problems
- Staff development was a low priority resulting in failure of staff to use the most effective teaching strategies.
- Staff morale was low with some personality conflicts.

3. Student Problems
- Students had low self esteem; this might be a result of poor parent role models.
- Students had drug and alcohol problems (also an Outside Influence Problem).

4. Outside Influence Problem
- Students suffered from abuse as children.
- Parents lacked good parenting skills resulting in poor role models for students.
- Poverty.

Based on these data, the committee decided to focus their attention on the following areas to reduce student truancy from school.
- Development of a comprehensive drug and alcohol program.
- Development of a parenting program for parents of students identified as high risk for truancy.
- Development of a comprehensive staff development program in the school.
- Alignment of the school data systems and curriculum with students' needs.

In addition, the committee decided to develop a Student Assistance Program intervention strategy for students having achievement levels in the 20th-60th percentile range.

In Conclusion

The fundamental assumptions in using disciplined inquiry methods are staff members are competent, every person in the school organization wants to do his or her job well and wants to be respected and valued, and most problems can be linked to the system rather than the people in the system.

Data-based decision making uses disciplined inquiry methods to examine schooling for continuous improvement. These methods have been referred to as field research, evaluation, and action research. They all have the singular purpose of developing the knowledge base to improve educational quality through individual, collaborative, or school-level study.

Several graphic statisti-

cal tools—flow chart, frequency chart, histogram, scattergram, Pareto chart, fishbone diagram, and run chart—can be used by staff to learn about what they are doing and its impact on students. These statistical tools enable staff to improve the quality of their decisions about what they can do to improve their performance which will lead to improved student success.

High performance schools are quality learning organizations for all staff. Weak schools do not have active learning organizations. Staff in schools that are good learning organizations use data to strengthen the profound knowledge needed for problem solving and decision making which results in performance improvement. This knowledge development is a staff development activity.

References

Abernethy, P.E., & Serfass, R.W. (1991, November). One district's quality improvement story. *Educational Leadership, 49*(3), 14-17.

Calhoun, E.F. (1993, October). Action research: Three approaches. *Educational Leadership, 51*(2), 62-65.

Crater, J., Zeni, J., & Cason, N. (1994). *Mirror images: Teaching writing in black and white.* Portsmouth, NH: Heinemann.

Deming, W.E. (1989, July 24). *Foundation for management of quality in the western world.* Paper presented at a meeting of the Institute of Management Sciences, Osaka, Japan.

Edmonds, R. (1979, October). Effective schools for the urban poor. *Educational Leadership, 37*(1) 15-18, 20-24.

Humke, J., DeHeer, A., Richter, L., & Vogel, V. (1994, October 7). *Student detainment as a deterrent of school tardiness.* Paper presented at the Northern Rocky Mountain Educational Research Association, Sun Valley, Idaho.

Lewin, K. (1947). Group decisions and social change. In T.M. Newcomb & E.L. Hartley (Eds.), *Readings in Social Psychology.* New York: Henry Holt.

MIT. (1996, January 21). *Condensation of the 14 points for management.* Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study. Internet. http://deming.eng.clemson.edu/pub/den/files/auth14.txt.

Oja, S.N., & Smulyan, L. (1989). *Collaborative action research: A developmental approach.* London: Falmer Press.

166

About the Author

Jon C. Marshall is professor and coordinator of the West River Graduate Center, South Dakota State University, College of Education and Counseling, 28 MSSQ/MSE, Ellsworth AFB, SD 57706, (605) 394-6823, (605) 394-2490 fax.

Jon Marshall is the executive director of the Northern Interior Staff Development Council, editor of the *NISDC Insider,* and board member of the Northern Rocky Mountain Educational Research Association. He has published over 100 articles on education and staff development and has made numerous presentations at NSDC, ASCD, AERA, and other conferences. He administers graduate programs in curriculum and instruction, school administration, and counseling, and he teaches courses in measurement, statistics, research methods, and school improvement.

167

Chapter

10

Leadership for Professional Development: Essential Arenas of Work and Learning

Margaret Arbuckle

The traditional authoritarian image of the leader as "the boss calling the shots" has been recognized as oversimplified and inadequate for some time. In contrast, building an organization's culture and shaping its evolution is the "unique and essential function" of leadership. In a learning organization, three roles of leadership are particularly critical, and often neglected: leader as designer, leader as teacher, and leader as steward. (Peter Senge, 1990, p. 10)

The paradigm shifts described by Dennis Sparks in Chapter One, coupled with a substantially increased knowledge base about the content and processes of learning, require equally substantial shifts in what professional development leaders actually do, as well as the knowledge required to do it. The professional development work of greatest influence—work that will truly affect learning—is no longer planning and scheduling workshops or training for others. Instead, it involves modeling and advocating for constant learning, creating professional communities, building infrastructures and methods to promote learning, assessing for impact, and maintaining momentum. The emphasis is on continual change rather than static maintenance of structures which may no longer serve a function or, in fact, inhibit change and learning.

With increasingly limited resources and more demands placed on our society and schools, a clear focus on learning as the cornerstone of our schools is imperative. Professional development leaders play a critically important role in furthering this goal. As leaders, they help create and manage a culture which supports constant learning. They are designers, teachers, and stewards of learning, not only for students but for the adults responsible for them. Indeed, they reflect the most critical and often neglected leadership functions (Senge, 1990).

The paradigm shifts also broaden the notion of who the staff development leaders are, from a designated "staff developer" to most members of a school community. Teachers, principals, parents, and school board

members can all play significant roles as professional development leaders. With a shifting emphasis on the primacy of the school as the key site for learning, the principal plays a particularly pivotal role as professional development leader. There still remains a powerful district role, but it's different from that of key decision maker and doer. It's a quieter role, though no less deliberate. It is more of a support function.

A framework to further define and understand the work of professional development leaders is displayed in Figure 1. It consists of five "arenas of work and learning" which are critical to flourishing learning-centered schools. They include:

- accessing and creating knowledge
- creating collegial cultures
- building learning infrastructures
- continuously assessing
- designing opportunities for learning
- maintaining momentum for continuous learning

All are of equal importance, and lack of attention to any one can jeopardize success. The work often occurs simultaneously in multiple arenas with no one starting point, although one arena may need more attention than others at any point in time.

Teachers, principals, parents, and school board members can all play significant roles as professional development leaders. With a shifting emphasis on the primacy of the school as the key site for learning, the principal plays a particularly pivotal role as professional development leader

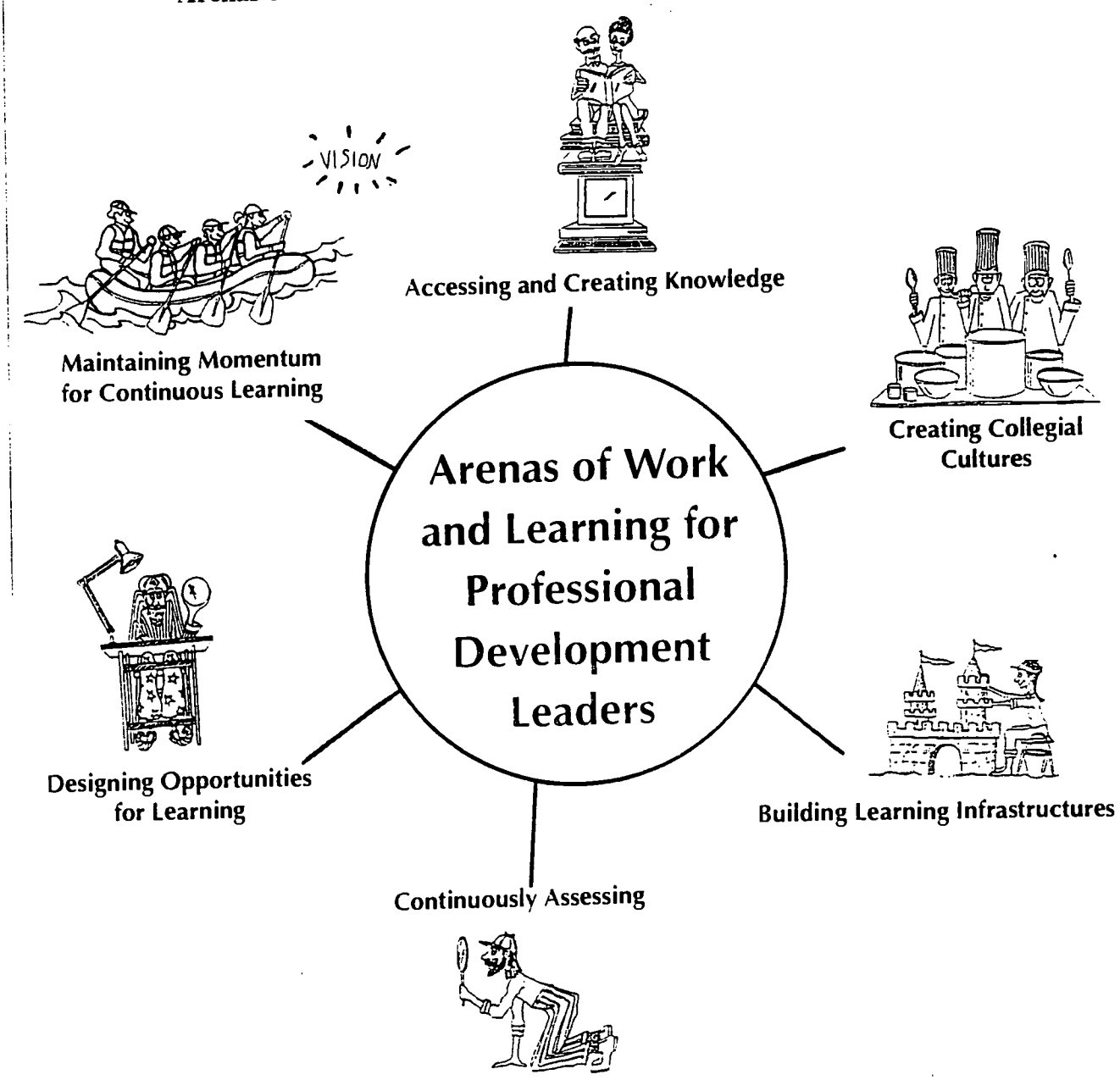
Accessing and Creating Knowledge

Access to knowledge is critical. If teachers and administrators do not have the knowledge and skills needed to create new learning environments and challenging curriculums, the goals of restructuring will not be met. Rules, regulations, traditions, myths, and even building architecture pose significant barriers to change—but the biggest barrier is the absence of knowledge and skills needed to do one's job differently. (J. L. David, 1991, p. 13)

Self-renewing systems can exist only if they have access to new information, and information must be continuously generated for a system to remain alive (Wheatley, 1992). Indeed, information is an organization's primary source of nourishment. Access to knowledge is particularly essential if we are to achieve a new vision of practice that requires educators to rethink their conceptions of teaching, learning, and schooling. As a high school teacher

169

Figure 1
Arenas of Work and Learning to Promote Professional Development



in western Maine noted: "You can't move anywhere unless you've educated yourself about alternatives. A vision doesn't occur in a void. You've got to look at multiple perspectives and multiple possibilities."

A substantial and increasingly spreading knowledge base relevant to professional development now exists. We now know much about learning and learning organizations. The information draws on knowledge about adult and teacher development, organizational development, specific disciplines, and learning. This knowledge base includes considerable advances in the content and processes of learning, individually and organizationally.

As catalysts of learning, professional development leaders are informed learners themselves. They continuously seek out this knowledge, model and apply it, and share it with others. The power of such information comes less from the identification of best practices than from stimulating reflection on current practice, its results, and other possibilities. The current knowledge base regarding professional development can open doors to a new vision of what professional development can and should be.

Unfortunately, this knowledge about continuous learning of educators is not yet common practice in many schools in the United States. While staff development has moved from a position of disregard in the 1970s to being viewed as a critical facet of school reform in the 1990s, data suggest that practice in schools is not much different than it was almost 20 years ago and that most teacher development is not designed to promote teacher growth (Darling-Hammond, 1994; Little, 1993; McBride, Reed, & Dollier, 1994).

Centralized, undifferentiated staff development prevails, with most dollars and decisions remaining at the district level. Teachers remain uninfluential, and staff development is often not applicable to the classroom and has little effect on practice. Time for planning, observation, and consultation with colleagues on problems of practice is almost nonexistent.

This lack of knowledge is reflected in a recent comment made by a state commissioner of education. He proclaimed the regional pooling of resources as part of his vision for professional development, "so instead of only 50 teachers listening to a speaker, 250 would be able to!" Much work remains to be done in this arena. It is no longer acceptable to squander limited resources on inservice activities that do not make a difference to anyone.

Professional development leaders understand the empowering nature of information to infuse vitality into a school. They constantly share it with others and encour-

171

> Self-renewing systems can exist only if they have access to new information, and information must be continuously generated for a system to remain alive. Indeed, information is an organization's primary source of nourishment.

age its application instead of withholding and controlling it. They also know that growth arises where information is not just passed on or stored, but created. Information is created every time we bring people together in new ways, connecting people with others of different disciplines, roles or grade levels, either within or outside the schools. Collegial networks become a particular critical vehicle for the spawning of new information. New ideas and insights about practice are fostered, which leads to deeper commitment to their application.

A critical job for professional development leaders, regardless of position or title, is not only to infuse new information into the system but to foster the creation of new ideas about practice through activities that bring people together. These leaders are always looking for ways to connect people with one another and to connect people with new ideas and information. This arena of work, as lead learner and connector, is among the most critical for professional development leaders.

The following example illustrates these issues.

A middle school teacher who was also the chair of the district staff development committee called a moratorium on staff development as it currently existed. Waning attendance and the drudgery of managing inservice days and credits prompted a re-examination of what professional development really should and could be. She put out a call to anyone interested in seriously examining individual and school learning and in creating a new vision of professional development. The group spent six months educating themselves about alternatives, which led to articulated guiding principles about what they thought mattered the most, the demise of the old staff development committee, and a new structure focusing on building professional community at the school level. The information they sought and created together led not only to a new structure, but new practice and a new vitality in the system.

Creating Collegial Cultures

The only way to make professional development an ongoing, satisfying and challenging part of teachers' lives, is to make the tending and support of teachers' professional community a number one priority. Indeed, all else is arguable of secondary importance. (Milbrey McLaughlin, 1994, p. 48)

Schools can't improve without people working together. People learn primarily through interaction with others, which leads to new insights, understandings, and practices. It is clear that creating a collegial culture in schools and school systems is a vital strategy for individual and school development.

Judith Warren Little (1982), in her seminal work on workplace conditions of school success, defined collegiality as a condition of frequent, continuous, and precise talk about teaching practice; reciprocal observation and feedback; co-development of teaching materials; and teaching each other about teaching. She concluded that continuous professional development was most surely and thoroughly achieved when such practices were evident.

More recently, Milbrey McLaughlin (1994) coined the term "professional community" to describe a school characterized by reflection and talk about assumptions and practice along with a strong sense of collective responsibility. Enabling professional development is about enabling professional community. Professional community is a necessary condition for sustained learning and particularly critical if we are to link professional development with reformed conceptions of teaching, learning, and schooling.

The cornerstones of such communities is conversation; it is not a frill, but indeed a necessary tool for learning. It is recognized by Nancy Atwell, teacher and founder of the Center for Teaching and Learning, who views "substantive conversation" between students, teacher and student, and teachers as the primary mode of instruction. Conversation is also recognized at an organizational level and identified by Peter Senge and colleagues at the MIT Center for Organizational Learning (1994) as the most important learning tool in a learning organization, more important than computers or sophisticated research.

The essence of leadership is the creation and management of culture (Schein, 1992), and probably the single most strategic thing that professional development leaders can do is to build a culture of interaction, shared reflection, and dialogue about practice. It is unlikely to occur naturally, especially in schools traditionally characterized by isolation. The focus on the individual is so deeply embedded in our culture and in our schools that it takes deliberate action to change to a collaborative culture and practice.

> Information is created every time we bring people together in new ways, connecting people with others of different disciplines, roles or grade levels, either within or outside the schools.

People don't naturally know how to work together nor talk together. Professional communities will be created only if

173

they are valued and nurtured by leaders throughout the system such as department heads, principals, district staff developers, and regional partnership directors. Such leaders intentionally break down the isolation by connecting people and information and finding time for exchanges. As noted by Costa, Lipman, and Wellman in Chapter Six, such exchanges do not keep us from doing our work, but rather enhance our capacity to do our work well.

More specifically, a professional community requires (McLaughlin, 1994):

- active school leadership with vision and commitment to developing a cohesive community focused on learning, one that integrates, rather than separates ideas and practice,
- time and space to meet and talk,
- interdependent teaching roles,
- active attention to renewal of community through symbols and celebration, and
- structures that encourage exchange of ideas within and across organizational units, including schools and school systems.

Professional development leaders deliberately create these conditions and build professional community. It may well be the single most important thing they do.

The following example illustrates these issues.

A principal of a traditional high school with many veteran faculty members was determined to change the existing norms of isolation and "balkanization" in which cliques of teachers competed with one another. To do so, she created a "committee of the whole" of 90 faculty members engaged in constant, substantive conversation about professional issues. Using limited time and resources (two inservice days and faculty meetings), she modeled good teaching and learning strategies; carefully planned and structured small group conversations (with the groups always changing) using provocative professional articles, videos, and student work; and introduced current research into the conversations. Community members were added to the committee of the whole. The collective work and learning was guided by an explicit framework for change. After just one year a faculty member noted: "The fallout is really profound. Faculty are thinking and talking about professional issues all the time." A professional community now exists due to the specific actions of the principal as a professional development leader.

Building Learning Infrastructures

We have a lot of infrastructure in our organization for decision making; we have very little infrastructure for learning. (Bob Allen, Chairman of AT&T, in Kim, 1994, p. 1)

A key arena of work for professional development leaders is the building of structures within school

systems that explicitly promote, protect, and set the expectation of learning of all people in schools, with a particular focus on teachers and other adults. These leaders also work hard to reduce structures which serve as barriers to professional learning. Explicit attention to structures which promote professional development is usually necessary in a culture such as ours which tends not to value it.

Structure refers to the "organizational architecture" (Senge et al., 1994) of a system, those things you can actually do or build which result in the system's behavior. Key structural elements which professional development leaders build include governing ideas and organizational arrangements.

The governing ideas give focus to a system and are expressed in the form of a school's statement of purpose, which is a vision of a preferred future and guiding values or beliefs. In schools that really are professional communities, these guiding ideas speak explicitly to the primacy of learning and continuous development, not only for students but for educators as well.

Professional development leaders play a critical role in creating a shared vision for schools that reflects the knowledge base about professional development and a need for faculty development. The articulation of explicit beliefs about professional development can be particularly useful in guiding professional development efforts.

The guiding ideas about learning and professional development form the foundation for the organizational arrangements necessary to achieve them. Such arrangements include determining who is responsible, the use of time and space, policies, and planning processes. They are the means through which resources are made available to promote professional learning. The policies should be directly related to the guiding ideas and regularly examined in light of them. To avoid being a sub-system of limited value in a school system, professional development must be integrally linked with the school's and district's strategic planning processes. Indeed, it is this support system that will enable a school to achieve what it wants to create. Professional development leaders are often the key facilitators of such planning or they coach others who are.

> Professional community is a necessary condition for sustained learning and particularly critical if we are to link professional development with reformed conceptions of teaching, learning, and schooling.

In a learning organization this "structural architecture" serves a larger purpose: To create a professional community in which continuous, deep learning is sustained. If a learning community does

175

not result from these functions then it is time to examine the architecture more deeply and modify it to more closely align with learning.

A challenge for professional development leaders is to avoid a fixation on complex permanent structures which often restrict learning. These leaders are also watchful of structures which are in conflict with guiding ideas or those which no longer serve a purpose. Examples include:

- A district staff development team that plans inservice days in the face of a guiding belief that the school is the primary focus for change and that the most influential professional development is job embedded.
- A school proclaiming the importance of continuous learning of its educators while allocating only three inservice days (two of which are used for parent conferences) and enforcing strict policies to restrict released time for teachers.

The artistry lies in structuring for openness—creating parameters that stimulate learning rather than stifle it. The control-orientation to management that often drives structure needs to focus instead on arrangements that facilitate learning. This implies less structure, not more, and ones that come and go in response to needs. Professional development leaders constantly ask: What organizational structures promote continuous professional learning? What structures get in the way? These leaders trust natural processes of growth and self-renewal and the power of connecting with others. They work hard to create and nurture those that support the building of professional community and deeper learning. Opportunities for structuring to promote professional learning present themselves in many places including the following:

- rotating assignments which prompt teachers to connect with new information and other teachers who previously taught the course;
- team teaching;
- establishing a two-year rotating position of teacher-as-researcher to study priority issues and educate colleagues;
- professionalizing the role of educational technicians to a more collegial one (with training in instructional techniques provided), enabling teachers more time to plan together;

> The essence of leadership is the creation and management of culture, and probably the single most strategic thing that professional development leaders can do is to build a culture of interaction, shared reflection, and dialogue about practice.

• hiring a permanent roving substitute so teachers can visit other classrooms; and
• instituting a policy of minisabbaticals supporting "educators as consultants" and encouraging faculty and principals to deepen their own learning through assistance to others.

Collectively such structures contribute to the building of a professional community which sustains continuous learning. It will not happen without the work of professional development leaders.

Continuously Assessing

The hallmark of a learning organization is not lonely visions floating in space but a relentless willingness to examine "what is" in light of our vision. (Peter Senge, 1990, p. 226)

The hallmark of a school that is truly a learning community is a collective ability and willingness to continuously and relentlessly assess "what is" in light of a vision of what's really important. Without some form of assessment, teachers and schools are unable to learn from their experiences and transfer it to other situations. Unfortunately, assessment has a rightfully tarnished reputation. It is either so trivialized through needs assessment surveys that it is ignored or it "strikes fear in people's hearts" (Roth & Kleiner, 1995, p. 1) and is rejected.

Too often, assessment means a destructive process of someone judging the merit and worth of others rather than enhancing an intrinsic ability to assess our own progress. This perception has contributed greatly to the unease which surrounds assessment of students or teachers in most schools. Instead, the key work of professional development leaders is to develop a continuous diagnostic habit, individually and collectively.

In fact, the root of the work assessment is the Latin "assidere," which means to sit by. Professional development leaders do a lot of "sitting by"; they are constantly listening to what people have to say, engaging people in their own inquiry, and repeatedly asking: What do we know about the results of our work and learning? How do we know if we've achieved something of value?

Professional development leaders start with themselves as "action researchers," examining their assumptions about learning and development and the degree to which their actions and the results are aligned with these assumptions. They model action research and work hard to create a similar school capacity for reflection. These leaders understand that assessment is a continuous process not limited to a standardized test or a needs assessment survey, that collaboration is a key element in arriving at thoughtful conclusions about notable results and their causes, and that student work should be put

177

at the center of the "data dig" to determine a focus for educator learning and growth.

Assessment starts with determining what you want to find out, what "learning lens" you want to wear. Indeed, as Karen Watkins and Victoria Marsick (1993) note, the learning organization begins by viewing the organization through the learning lens, thinking about what it does that supports learning, and making plans to change what it does that prevents learning. The "lens" or focusing question helps you see more clearly and directs you to the most relevant data sources and tools. The learning lens and focusing question might be quite broad or narrow and specific, as the following examples depict:

- A regional partnership uses the concept of professional community as a lens, examining the extent to which they convene people, promote reflection and dialogue, and foster critical examination of assumptions and their alignment with practice.
- A school studying and applying multiple intelligences uses multiple intelligence theory as a lens in examining practices that support this theory and those that do not.
- A principal and her faculty use information about leadership in a learning organization as a filter to examine the extent to which they exhibit leadership as designers, teachers and stewards.

> If professional development opportunities do not result in tangible changes in teacher and administrator practices, and through them student learning, then the system has little value.

Professional development leaders know that alternative and multiple forms of assessment that engage various roles and perspectives must be considered. They are knowledgeable about tools and process to do so and engage others in them. Several particularly promising forms of assessment include the collaborative assessment conference, the tuning protocol, the school quality review, and learning histories.

1. ***Collaborative Assessment Conferences*** are highly structured sessions in which groups of five participants engage in the study and discussion of a child's work. They include a presenting teacher, three informed colleagues, and a facilitator. The purposes are to look more deeply into students' work and their intentions, develop habits of careful reading of student work, and develop broader perspective on students and their work (Seidel, 1992).

2. ***The Tuning Protocol*** asks a teacher to present actual work before a group of

178

thoughtful "critical friends" in a structured reflective discourse aimed at "tuning" the work to higher standards. Student work is at the center of the protocol and warm and cool feedback about practice and its results is given (Allen, 1995).

3. ***The School Quality Review,*** as adapted by the Southern Maine Partnership, is a collegial process designed to support the development of learner-centered accountability in schools. It focuses on teaching and learning and seeks to establish a culture of self-critique and reflection through a cyclical review process. It involves an internal and external audit around explicit learner-centered principles as well as a key focusing question.

The external visiting team acts as "critical friends" and helps the school examine itself in relation to the learner-centered principles and its own focusing question. The learner-centered principles were determined collectively by members of The Southern Maine Partnership (i.e., A core set of skills and knowledge for all students is clear and can be explicitly stated by teachers, students, parents, and community members.). The focusing question is determined by the participating school. (i.e., To what degree does assessment drive instruction?) (Miller, 1995).

4. ***A Learning History*** is a written document created to help an organization become better aware of a learning effort within its boundaries. It is based on a belief that it is possible to link learning organization efforts to results, but not through analytic measures. Instead, the results are conveyed through stories drawn through data from a wide variety of people and differing perspectives. Only the stories bring the results to life and with it a collective learning and understanding which can then be transferred to other situations. The learning historian's job is to capture and tell the story (Roth & Kleiner, 1995).

These four approaches involve serious examination of learning practices, are collaborative, and are based to some extent on people telling their stories. They are powerful alternatives to traditional assessment tools. As Roth and Kleiner (1995) note: "People want to share what they have learned. They want others to know what they've done—not in a self-serving fashion, but so others know what worked, and what didn't work They don't want to be assessed. They want their story told" (p. 5).

Designing Opportunities for Learning

People learn best through active involvement and through thinking about and becoming articulate about what they have learned. Processes, practices, and policies that are built on this view of learning are at the heart of a more expanded view of teacher

The new vision of educational reform requires educators to rethink their practice in a way unlikely to occur in traditional workshops or training sessions.

development that encourages teachers to involve themselves as learners in much the same way as they wish their students would. (Ann Lieberman, 1995, p. 592)

The heart and core of a professional development system are the designs for learning which it supports. If professional development opportunities do not result in tangible changes in teacher and administrator practices, and through them student learning, then the system has little value. Designs for learning refers to the structures and formats to achieve certain outcomes, formal and informal, planned and emerging. As with organizational arrangements noted earlier, all designs need to be deliberately aligned with learning-centered principles embodied in explicit guiding ideas about professional and school development.

Unfortunately, designing non-training forms of learning remains a hurdle in many schools. While the knowledge base relevant to professional development continues to grow significantly, school practices have not kept pace. Short-term, large-group workshops on topics deemed of value to all continue to be the wearying norm in many school systems, with training still viewed as a primary vehicle for development.

Although skills training can be a "design for learning" an increasingly veteran staff who have a wealth of knowledge and practical wisdom, or bright motivated new teachers, require different forms of learning opportunities. They need approaches which offer opportunities to reflect, analyze, and talk with others about daily practice and what's worth knowing. The new vision of educational reform requires educators to rethink their practice in a way unlikely to occur in traditional workshops or training sessions.

Professional development leaders are knowledgeable about many alternative designs for learning which do not simply require seat time. They know that educators, as students, learn from an array of engaging experiences that are connected to their own lives and jobs. These leaders know that one size never fits all and instead work to "keep the environment reeking with rich ideas, keeping it stoked, keeping learning opportunities in the water supply!" (McLaughlin, 1994).

Professional development leaders are always looking for methods and tools to promote learning and share them with others. They understand that learning means finding your own meaning, not someone else's, and they have no need to control or

lead people to the correct answer or approach. Instead, they structure the environment to connect people and information and trust that learning will occur.

This may mean connecting a fellow teacher at a timely moment with a book to read or a classroom to visit. It may mean finding space and time to convene a reflective practice group focusing on the new math standards. Or it may mean encouraging an English teacher to take a sabbatical to work with a local writer. All are designs for learning promoted by different members of the school community.

Professional development leaders are also masterful designers and facilitators of learning experiences themselves. They are clear about outcomes, present new information in a variety of ways, immediately engage participants in finding their own meaning (usually in small groups), are very visual in their display of information, limit their own and large group talk, and work to engage the whole person through non-rational means such as storytelling, metaphors, visual dialogue, multiple perceptual positions, and sensory modalities. In short, they model good teaching.

New "designs for learning" may, in fact, include some old forms, such as discipline-specific summer institutes or skill-specific training that are carefully designed to reflect learning principles. Other examples of alternative designs include action research that link faculty from local schools and colleges, journal writing with colleagues, minisabbaticals and think tanks promoting the teacher as researcher, a reflective practice group on brain research utilizing a video series, and a year-long assistance program on systemic school change for school system leadership teams.

All of the assessment practices noted earlier are, in fact, designs for learning as well. Assessing, planning, and learning are all interwoven, not discrete steps in a linear planning process. Reflection and dialogue about knowledge and its application are the cornerstone of all designs for learning. They all take place over time and contribute to building professional community. Professional development leaders assure their presence and continued development.

> Professional development leaders are the designers, teachers, and stewards of learning, and their work should be celebrated and promoted. Indeed, we will not create, energize, and sustain learning-centered schools without it.

Maintaining Momentum for Continuous Learning

Self-renewing schools—places where students as well as their educators are continuously learning—are marked not by equilibrium but by continual change. In fact, the old watchdogs of consistency and stability often curtail learning. As Margaret Wheatley (1992) commented: "I've observed the search for organizational equilibrium as a sure path to institutional death, a road to zero trafficked by fearful people" (p. 76). She notes that in thermodynamics, "equilibrium is the end state in the evolution of isolated systems, the point at which the system has exhausted all of its capacity for change" (p. 76). Perhaps such a traditional focus on stability in our school systems has, indeed, prevented them from becoming the vital places of learning we most desire.

The primary function of professional development leaders is to maintain momentum and promote continuous learning, with an emphasis on momentum rather than maintenance. This is a broad and critically important arena of work which might more accurately be placed at the center of Figure 1 since attention to all of the arenas of work described in this chapter will assure momentum.

It is simply not possible to stifle growth when new information is constantly infused and created in schools, structures promoting learning are built (and disappear when they no longer serve a purpose), professional community is created, progress is continually assessed, and designs for learning proliferate. Deliberate and thoughtful attention to these arenas—and the ensuing momentum—is the work of professional development leaders. They assure the vitality of schools through deliberate attention to the development of students and the adults responsible for them, as well as for the collective learning community. Professional development leaders are the designers, teachers, and stewards of learning, and their work should be celebrated and promoted. Indeed, we will not create, energize, and sustain learning-centered schools without it.

182

References

Allen, D. (1995). *The tuning protocol—A process for reflection.* Providence, RI: Coalition of Essential Schools, Brown University.

David, J.L. (1991). What it takes to restructure education. *Educational Leadership, 48*(8), 11-15.

Darling-Hammond, L. (1994). *The current status of teaching and teacher development in the United States.* The National Commission of Teaching and America's Future. New York: Teachers College Press.

Kim, D.H. (1994). Building learning infrastructures. *The Systems Thinker, 5*(3), 34-37. (Published by Pegasus Communications, Cambridge, MA.).

Lieberman, A. (1995). Practices that support teacher development: Transforming conceptions of professional learning. *Phi Delta Kappan, 76*(8), 591-596.

Little, J.W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19*(3), 325-340.

Little, J.W. (1993). *Teachers' professional development in a climate of educational reform.* New York: National Center for Restructuring Education, Schools, and Teaching, Teachers College, Columbia University.

McLaughlin, M.W. (1994). Strategic sites for teachers' professional development. In P. Grimmett & J. Neufeld (Eds.), *Teacher development and the struggle for authenticity* (pp. 31-51). New York: Teachers College Press.

McBride, R.E., Reed, J.L., & Dollier, J.E. (1994). Teacher attitudes toward staff development: A symbolic relationship at best. *Journal of Staff Development, 15*(2), 34-41.

Miller, L. (1995). Professional Development Schools Network News. *School Quality Review, 2*(3), 4 & 7. (Published by the National Center for Restructuring Education, Teachers College, Columbia University, New York.).

Roth, G., & Kleiner, A. (1995). Learning histories: Assessing the learning organization. *The Systems Thinker, 6*(4), 1-5. (Published by Pegasus Communications, Cambridge, MA.).

Schein, E. H. (1992). *Organizational culture and leadership.* San Francisco: Jossey-Bass.

Seidel, S. (1992). *Looking carefully together: A comparative analysis of four models of teachers' collaborative investigation of children's work.* Unpublished document. Harvard Graduate School of Education, Cambridge, MA.

Senge, P. (1990). The leader's new work: Building learning organizations. *Sloan Management Review, 32*(1), 7-23.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday.

Senge, P., Ross, R., Smith, B., Roberts, C., & Kleiner, A. (1994). *The fifth discipline fieldbook.* New York: Doubleday.

183

Watkins, K.E., & Marsick V.J. (1993). *Sculpting the learning organization.* San Francisco: Jossey-Bass.

Wheatley, M.J. (1992). *Leadership and the new science.* San Francisco: Berrett-Koehler.

About the Author

Margaret Arbuckle is an executive director for the Western Maine Partnership for Educational Renewal at the University of Maine at Farmington, 104 Main Street, Franklin Hall, Farmington, Maine 04938, (207) 778-7185, (e-mail: Katrask@Maine.edu).

As the executive director of the Western Maine Partnership, Dr. Arbuckle joins her colleagues from 28 school systems and the University of Maine at Farmington in promoting the development of learner-centered schools for students as well as educators. She has taught at all levels in schools and universities within Massachusetts and Maine in a variety of areas from geology to creative writing, analysis of teaching to leadership. Her graduate work was done at Boston University, University of Massachusetts, and Harvard University.

Her professional positions have included co-director of a suburban educational science center, teacher corps project evaluator, director of off-campus internship programs, and director of Maine's Staff Development Network. For the past 15 years her primary focus has been professional and school development, and her work has received several national awards for exemplary practice. Margaret has consulted with school systems within the United States and Canada and has co-authored several books on professional development, with *Creating Learner Centered Schools Through Professional Development,* in progress.

Her current work includes directing a three-year assistance program for school leadership teams on "Facilitating System Change: Closing the Loop"; on-site coaching of principals regarding the alignment of practice with learner-centered principles; and developing "learning histories" as an alternative to assessment.

National Staff Development Council
P.O. Box 240
Oxford, Ohio 45056
(513) 523-6029

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

X	This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.
	This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").