Redesigning America's Schools:
A Systems Approach to Improvement

by
Francis M. Duffy
Lynda G. Rogerson
and Charles (Buzz) Blick

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Chapter 1

The Past Before Us Is Not the Future:
A Systems Approach to
School Improvement

In *A Woman of the Future*, Australian novelist David Freeland described a character whose “past was before him like a beacon, he would keep going in that direction and call it the future.” To be in control, to master change . . . you must fall away from a past that prevents you from seeing the potential ahead.”

—Arnold Brown and Edith Weiner

The past hides in the confusion of the present, waiting to make its entrance to the future. Some people hold the past before them like a beacon and call it the future, like the character in David Freeland’s book. Its beam is thought to shine the light of understanding on whatever it unveils. Outside the circle of illuminated ideas is a capacious darkness with unknown opportunities and hidden dangers.

There is much to be learned about school improvement in this immense darkness. Past efforts to understand and apply school improvement methods illuminate what we currently know (see chapter 3). To expand their understanding of the world of school improvement, researchers and practitioners venture into the darkness by stepping outside the comforting circle of ideas illuminated by the light of the past. They realize that “change is a journey of unknown destination, where problems are our friends, where seeking assistance is a sign of strength, where simultaneous top-down bottom-up initiatives merge, where collegiality and individualism co-exist in productive tension” (Fullan, 1994, pp. vii-viii).
In this chapter, we take you into the darkness beyond the tranquilizing comfort of what is currently known about school improvement to explore the land of systemic school improvement. We guide you along a new path called Knowledge Work Supervision (KWS) (Duffy, 1996, 1997a, 1997b, 2000 in press). The journey starts here with an overview of the terrain (more details about using KWS are found in Part II).

**Knowledge Work Supervision**

Organizational transformation requires a fundamental shift in the mental models used to design and manage organizations. This transformation occasionally occurs in response to or in anticipation of changes in an organization’s external environment. This kind of transformation also requires simultaneous changes in an organization’s core work process and its internal social “architecture” (which includes organizational culture, organizational design, critical job skills, and communication structures and processes). It requires qualitatively different ways of perceiving, thinking, and behaving within the organization. It demands the active, unequivocal leadership of top management and the significant involvement of other members of the organization. It is characterized by “considerable innovation and learning and continues almost indefinitely as organization members discover new ways of improving the organization and adapting it to changing conditions” (Cummings & Worley, 1997, p. 475).

Schlechty (1990) suggested that revolutionary transformation is necessary for America’s schools when he said, “If America’s schools are to meet the needs of the 21st century, then—like America’s corporate structure—they must be reinvented. It is not enough to try to fix schools; they must be reconstituted in fundamental and radical ways... restructured” (p. xvi). KWS is designed to transform entire school systems into high-performing organizations of learners.

Darling-Hammond (1997) observed that

...the most successful schools [in her study] were characterized not by the particular innovation they had adopted but by their willingness to search and struggle in pursuit of valid objectives, new strategies, and new forms of assessment. It was the process of collective struggle that produced the vitality, the shared vision, and the conviction that allowed these schools to redesign education in fundamentally different ways. (p. 53)

KWS is a new strategic, comprehensive, systemic, and systematic approach that can transform school systems in fundamental ways. It also has the potential to create and support student, teacher, and system learning. KWS is shown in Figure 1-1.

We summarize below the four phases of KWS using Figure 1-1 as a guide. Part II describes the specific KWS steps and activities.

**The Four Phases of KWS**

KWS was designed by linking the theory of large-scale organizational improvement to established methods for improving whole systems and innovative methods for improving knowledge work. The term *established methods* is not used frivolously. Methods integrated into KWS have more than 35 years of research and successful experience supporting their effectiveness. These methods are Fred and Merelyn Emery’s Search Conference and Participative Design Workshop (Emery & Purser, 1996). A third method is Harrison Owen’s (1991, 1993) Open Space Technology. This method has been used effectively for about 15 years. A fourth set of tools is called the Socio-Technical Systems (STS) design methodology. In 1994, a compiled research bibliography on STS design contained 3,082 English-language research studies focusing on its effectiveness (van Eijnatten, Eggermont, de Goffau, & Mankoe, 1994).

KWS focuses on producing simultaneous improvements in three sets of school system variables: knowledge work processes, social architec-
ture, and environmental relationships. Simultaneous improvements in these three areas are made using a systematic four-phase process designed to transform entire school districts into high-performing communities of learners.

Prelaunch Preparation and Input from the Environment

In the upper left-hand corner of Figure 1-1, there is a large arrow pointing to Phase 1. This arrow represents the work that needs to be done prior to launching KWS. During the prelaunch stage, the superintendent of schools explores the district's readiness to change. He or she assesses the threats and opportunities presented by the possibility of engaging in systemic redesign. Efforts are taken early to build initial political support for change. If the system is ready to change and if there is sufficient political support, then the superintendent launches KWS by initiating Phase 1 activities.

A very important element of prelaunch work is building political support within a district's school board. As a policy-making and decision-making body, the school board must give very strong support to the superintendent to launch and sustain KWS. Its support is absolutely critical, and the superintendent cannot proceed without it.

Phase 1: Building Support for Innovation

During Phase 1 (see Chapter 5 for more details), top leaders continue preparing to redesign the school system and developing political support for innovation. They form and train a Strategic Leadership Team (SLT) composed of influential administrators and teachers from each of the three levels of schooling in the system (elementary, middle, and secondary). The SLT provides strategic leadership for school improvement.

A Knowledge Work Coordinator is appointed or hired and trained to provide technical leadership for school improvement. He or she is also a member of the SLT.

A cluster of K–12 schools is identified to begin the redesign process. A multilevel team of educators from within the cluster is chartered and trained as a Cluster Improvement Team to coordinate school improvement.

Site Improvement Teams and Communities of Practice within the clusters are also chartered to create innovative ideas to redesign their individual schools and their communities of practice. These teams and communities receive training on systemic school improvement in the early stages of Phase 2.

During Phase 1, the school system's stakeholders engage in a special large-group process called Open Space Technology (Owen 1991, 1993) to identify their expectations for the school system. A systemwide Search Conference for selected members of the school system is also conducted near the end of this phase. This conference results in a well-defined strategic direction for the school system and a set of broad guiding principles for redesigning the school system.

Effective Phase 1 work is very important. Kotter's (1995) research supported this conclusion. He identified eight errors made during organizational improvement that resulted in failure. Six of these errors can occur during Phase 1 of KWS. They are as follows:

- Not establishing a great enough sense of urgency
- Not creating a powerful enough guiding coalition
- Lacking a vision
- Undercommunicating the vision by a factor of 10
- Not removing obstacles to the new vision
- Not systematically planning for and creating short-term wins

A failed school improvement effort will harden people's resolve to resist future efforts to improve the system.

The superintendent of schools must provide leadership early in Phase 1. His or her leadership is critical to the success of this kind of systemic improvement effort. It is not sufficient for superintendents to write or talk about their support. They must demonstrate behaviorally their commitment to the KWS process, which means participating in and leading activities during Phase 1 (and throughout the KWS process).

Phase 2: Redesigning for High Performance

Seeking quick-fix solutions is seductive, but KWS is not about quick fixes. It is about transforming entire school systems into high-performing organizations of learners. This transformation requires an extraordinary level of shared leadership. One goal of this phase is to create simultaneous top-down, bottom-up redesign initiatives. Phase 2 (see chapter 6 for more details) is where shared leadership is most critical. All the steps in this phase are designed to ensure high involvement of faculty and staff by reinforcing the shift toward a participative organizational design.

The redesign phase focuses on creating simultaneous improvements in the first K–12 cluster's core knowledge work processes (teaching and learning), social architecture, (the cluster's culture, communication structures, etc.) and environmental relationships (the cluster's relationship with its neighborhood, the broader community, and the other clusters in the district). The three arrows on the right side of Figure 1-1 represent these simultaneous improvements.
Phase 3: Achieving Stability and Diffusion

The Knowledge Work Coordinator and Cluster Improvement Team from the first K–12 cluster stabilize the rate of change within the cluster so their people have a chance to learn new skills and behaviors. Desirable skills and behaviors are rewarded to stimulate stabilization. Success is celebrated, and failures are turned into learning opportunities. Phase 2 steps are repeated for all remaining K–12 clusters until the entire school system is redesigned in accordance with the general redesign guidelines set in the systemwide Search Conference held at the end of Phase 1. (See chapter 7 for more details on Phase 3.)

Phase 4: Sustaining School Improvement

The Knowledge Work Coordinator develops effective methods for managing the invisible but real boundaries between individual schools, between clusters, between levels of schooling, and between the school system and its environment. In this capacity, the Knowledge Work Coordinator role is a boundary-spanning role (Daft, 1997).

All key players practice principles of transformational leadership. Cutting-edge principles for improving the performance of individuals and teams are applied. Cluster Improvement Teams, Site Improvement Teams, and Communities of Practice also apply principles of continuous improvement for a predetermined period. (See chapter 8 for more details on Phase 4.)

At the end of this predetermined period, the entire KWS process recycles to Phase 1 and starts again. KWS is a never-ending process of continuous school improvement. Achieving high performance is an evolutionary process.

In the lower left-hand corner of Figure 1-1 there is a large arrow that says “feedback to environment.” The results of all the redesign activities must be reported back to the stakeholders in the community. Reporting strengthens and maintains political support.

The Five Key Players of KWS

The five key players for KWS are also shown in Figure 1-1. These are briefly described below.

Strategic Leadership Team

The SLT provides strategic leadership for school district improvement. It is composed of the superintendent of schools, a few of his or her trusted assistants, and respected teachers and building-level administrators who are appointed to the team by their colleagues (not by the superintendent) from each level of schooling (elementary, middle, and secondary). Some school systems may decide to include a school board member, parents, community members, a state department of education representative, or students.

Knowledge Work Coordinator

This is a new role proposed to serve as an “integrator” (Daft, 1997). He or she is a teacher, supervisor, or administrator retrained to provide tactical leadership for systemic school improvement. Similar roles are already in place in school districts in the United States; for example, in the Frederick County Public Schools (Maryland), the role is called Executive Director for Community Relations. This person coordinates school improvement in the eight K–12 clusters in that district and establishes and maintains relationships with the community.

Cluster Improvement Teams

KWS uses a K–12 cluster of schools as the unit of change instead of individual school buildings. A K–12 cluster is a set of interconnected schools often configured as a single high school and all the middle and elementary schools feeding into it. Some school districts don’t have feeder systems. These districts can create K–12 clusters by linking those schools that tend to share students.

Site Improvement Teams

School-based improvement is important but insufficient by itself for improving an entire school system. Because of the importance of school-based improvement, Site Improvement Teams (SITs) are part of KWS. The SITs create innovative ideas for redesigning what happens inside their buildings while taking into account that their buildings are part of a K–12 instructional program. The SITs cannot redesign their schools with total disregard for how they are connected to other schools in their cluster.

Communities of Practice

Communities of Practice can be formal, permanent work teams. They can also be informal groups of like-minded practitioners who come together to explore an issue or a topic, disband when their study is done, and re-form with different members to explore different topics. Or they can be a single teacher and his or her students. These “circles of learning” are expected to disseminate what they learn to others in the school system. In this way, they play a critical role in creating districtwide professional knowledge.

The Role of the Central Office

A school district’s central administration office can be a stumbling block to creating and sustaining systemic school improvement. The cen-
Underpinnings of the KWS Approach

The central “puzzle-piece” in Figure 1-1 is labeled “High-Quality K–12 Classroom Teaching and Learning.” There are one-directional arrows pointing out of each phase toward that central piece. These directional arrows reinforce the point that everything done in the name of systemic improvement is done to provide students with a high-quality education.

Many years of experience and research (see Bunker & Alban, 1997) on large-scale organizational improvement have taught us six valuable lessons that underpin the KWS approach:

- Three things must be changed simultaneously: the core work process, the social architecture, and the environmental relationships.
- It is insufficient to make these three changes in only a few individual units, departments, or teams within an organization. The whole organization must be changed.
- Making these three kinds of simultaneous changes requires the use of high-involvement methods that engage all members of the organization and selected stakeholders from outside the organization in discussions about the future of the organization.
- All changes and all internal operations must be aligned with the overall strategic direction of the organization.
- Systemic change is a never-ending journey toward higher and higher levels of performance.
- This kind of systemic change can be done, and it can be done quickly.

There are 11 basic propositions that underpin KWS.

**Proposition 1.** The basic unit of change within a school system is a K–12 cluster rather than individual schools. Site-based school improvement is a necessary part of systemic school improvement, but it is insufficient by itself for producing systemic improvement. Systemic school improvement focuses on making changes within each K–12 cluster that are aligned with and supportive of the strategic direction of the entire school system. This principle is reinforced in the literature on organizational improvement.

**Proposition 2.** Effective school improvement requires the use of the principles of systemic change. When principles of large-scale improvement are consistently applied, it is much more likely that improvement efforts will produce systemwide excellence rather than pockets of school-based or department-specific excellence.

**Proposition 3.** When redesigning K–12 clusters, the ideal design is not preordained by what worked in other districts. The ideal design is defined by three broad characteristics: (a) what it will take for each cluster to deliver an excellent and equitable education to all students (by making improvements to their knowledge work process); (b) the conditions under which the learning needs of teachers, administrators, and other staff are to be met (by making improvements to the system’s social architecture); and (c) those conditions under which the cluster is able to meet the changing demands of its larger turbulent environment, which includes the broader school system, organizational culture, technology, finances, and the neighborhood(s) served by the cluster (by improving environmental relationships).

**Proposition 4.** The transformation of the social architecture of a school system from a bureaucratic design to a participative design is critical to the success of a knowledge-creating organization staffed with knowledge workers. This transformation requires the chartering and ongoing support of work teams. Furthermore, these teams must be empowered with real authority and responsibility for redesigning their knowledge work processes, the social architecture of their work units, and their relationship with the broader environment.

**Proposition 5.** KWS improvements must be clearly aligned with the school system’s strategic direction and coordinated to ensure ongoing alignment.

**Proposition 6.** The new organizational design created through KWS should facilitate practitioners’ timely access to high-quality information and knowledge, allow them to influence decisions, and give them the authority to take appropriate actions so they can learn together to create shared knowledge about teaching and learning.

**Proposition 7.** The K–12 clusters within a school system, the individual schools within each cluster, and the many Communities of Practice within and among clusters should be clearly linked and coordinated to support the strategic direction of the school system. Otherwise the system will be a confederacy of loosely connected parts rather than an interdependent system working toward common goals.

**Proposition 8.** Systems and individuals have low tolerance for multiple, yearly, rapid-fire changes. KWS improvements should be stabilized and allowed to stay in place for a predetermined period as long as they continue to produce desired outcomes.

**Proposition 9.** Even though systemic stability is reestablished after making KWS improvements, none of the improvements should be
viewed as permanent. The school system must seize opportunities in and deal with threats from its environment. This requires school systems to maintain their capacity for future change.

**Proposition 10.** Practitioners must have a clear understanding of how to align their individual behavior with the school system's strategic direction. Within the context of KWS, individuals, teams, schools, and Communities of Practice are held accountable for behavioral alignment and are rewarded accordingly.

**Proposition 11.** A "healthy" school system is one that benefits the people within it and has a positive future.

### The Knowledge Base for KWS

KWS was born of several interrelated areas: socio-technical systems design (e.g., Emery & Trist, 1972; P asmore, 1988, 1992; Pasmore, Francis, Shani, & Haldeman, 1982; Trist, 1969; Trist, Higgin, Murray, & Pollack, 1963), quality improvement (e.g., Crosby, 1979; Deming, 1982; Ishikawa, 1985; Juran, 1989; Taguchi & Clausing, 1990) organizational development (e.g., Argyris & Schön, 1978; Burke, 1982; French & Bell, 1978; Senge, 1990a, 1990b), and knowledge work (e.g., Drucker, 1993; Knights, Murray, & Willmott, 1993; Pava, 1983a, 1983b, 1986). Key KWS concepts and methods are summarized below.

#### Core Concepts

**Socio-Technical Systems Design.** This field has contributed the most to the core of KWS. The key concept borrowed from STS design is that organizations are complete systems with components that interact with each other. A system also exists within a broader environment and has an exchange with that environment. The system functions by converting inputs into outputs. Inputs are human, financial, and technical resources used to do work (using a conversion process) inside the organization that results in products or services (outputs) being delivered to a customer. Feedback (i.e., an evaluation of the quality and timeliness of a product or service) is provided to managers and employees working in the organization so they can improve what they are doing.

**Team-Based Organizational Design.** Setting priorities and providing resources is not enough to transform entire school systems into high-performing communities of learners. Senior- and school-level managers must actively support and encourage the transformation of their school systems from traditional hierarchical organizational designs into team-based designs. Substantial research also exists on the effectiveness of self-managed teams (Goodman, Devadas, & Hughson, 1988). Pava (1983a) says this kind of transformation has four elements:

- It must promote new concepts that enable people to appreciate the fact that work and its organization can be designed by choice.
- The approach must guide data collection and analysis about how work is currently organized.
- The approach should generate a tentative outline of new organizational alternatives.
- The approach should specify basic guidelines for the process of getting people to change their unit's organization and technology.

As described above, KWS has five key players, four of which are teams: the SLT, the K–12 Cluster Improvement Teams, the STIs, and Communities of Practice. The linchpin that orchestrates all these teams is the Knowledge Work Coordinator—a new role proposed for school systems to serve as a knowledge manager. As networked teams, these key players not only work within their chartered team boundaries, but they also communicate across team boundaries.

**From Bureaucracy to Participation and Collaboration in School Systems.** Because KWS requires a high level of participation and collaboration, the traditional bureaucratic organizational design of school systems ought to be replaced with a participative organizational design. It is impossible to have a high degree of participation and ownership within bureaucratic operating principles.

High participation is one of the critical factors for successful school improvement. MacMullen (1996) reviewed and analyzed factors affecting school improvements made in schools that were part of the Coalition of Essential Schools and concluded that a significant requirement for successful reform is the inclusion of the entire faculty (emphasis ours) in developing the strategic direction of the school system. Similarly, Peterson, McCarthey, and Elmore (1996) learned through their research that successful school restructuring was related to teachers working together as a whole staff or in teams. Fullan (1991) recommends the "redesign of the workplace so that innovation and improvement are built into the daily activities of teachers" (p. 353)—a recommendation that implies the need for a high level of teacher participation in the improvement process.

High participation also contributes to a sense of self-efficacy; that is, the sense that one has some degree of influence or control over something. Rosenholtz (1989) found that teachers with a strong sense of efficacy were more likely to adopt new classroom behaviors and were more likely to stay in the profession. McLaughlin & Talbert (1993) confirms Rosenholtz's findings. They suggest that giving teachers opportunities for learning together resulted in a body of teaching wisdom. Darling-Hammond (1996) observe that this level of teacher collaboration and
participation is rare, yet the need for it is greater now than at any time in the past.

Organizational Development. This field has also influenced the development of KWS. There are many concepts from it that contributed to the design of KWS: change theory, large-scale change, fast-cycle change, conflict management, managing resistance to change, and decision-making and problem-solving methods. Two key concepts from this field that we summarize here are learning organizations and Communities of Practice.

Learning Organizations. Chris Argyris and Donald Schon (1978) have written much about this concept. However, it was Peter Senge (1990a) who popularized the term “learning organization” in his book *The Fifth Discipline*. Senge describes learning organizations as places “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 1). Garvin (1993) described a learning organization as “an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights” (p. 80).

Communities of Practice. This concept spun out of the learning organization literature. A Community of Practice is a small group of practitioners collaborating to learn how to do their jobs better. In education, this concept has become known as learning communities.

The term learning community has different meanings. Astuto, Clark, Read, McGree, & Fernandez (1993) propose three definitions: (a) a professional community of educators, (b) a community composed of teachers and students both inside and outside classrooms, and (c) the stakeholder community (including parents, business groups, state departments of education). We use the term “Communities of Practice” to emphasize a focus on professional communities of educators.

In school systems, a Community of Practice exists when practitioners work together collaboratively and frequently to improve the quality of education for children (Louis & Kruse, 1995). This kind of collaboration is grounded in what Newmann (cited in Brandt, 1995) and Louis and Kruse call reflective dialogue. Using reflective dialogue, Communities of Practice have ongoing conversations about students, teaching, and learning. Sergiovanni (1996) said, “If our aim is to help students become lifelong learners by cultivating a spirit of inquiry and the capacity for inquiry, then we must provide the same conditions for teachers” (p. 52). Creating and supporting Communities of Practice will provide teachers with the capacity for and spirit of collaborative inquiry.

Core Methods of KWS

Search Conference Method. This method was developed by Merrellyn and Fred Emery and is described by Emery and Purser (1996). The Search Conference is a participative planning method that enables people to do the following:

- Create a plan for the most desirable future for their community, school, or other organization
- Set new policy directions to meet emerging needs
- Find common ground on difficult social issues
- Build strong interorganizational alliances for future collaboration

The Search Conference is effective for any organization coming together around a common purpose and looking to build a desirable future.

During a Search Conference, people discover common ideals within their diversity and build unique partnerships for future action. Through a carefully designed “open systems” approach to planning, school systems create ways to thrive in the face of uncertain, turbulent times.

Participative Design Workshop (PDW). This method was also developed by Merrellyn and Fred Emery and is described at length in *Participative Design for Participative Democracy* (Emery, 1993). The PDW is a process that engages people in designing and implementing a highly effective, self-managing work system. This approach recognizes that imposed change fails. To avoid failed improvement efforts, the PDW method involves faculty and staff in creating innovative ideas for improving their school district.

The PDW teaches people how to analyze the way they currently do their work. It also helps them to assess their level of satisfaction with their current system. Teams of teachers can then design better ways to use everyone’s skills. Finally, a detailed plan is developed for implementing the redesigned work processes and for evaluating results.

Open Space Technology (OST). This is a powerful method for engaging external stakeholders in a meaningful dialogue about their expectations for a school system (Owen, 1991, 1993). OST is a large-group process that brings together a wide range of key stakeholders from a school system’s environment to interact with members of the school district. Together, they explore critical issues in the relationship between the district and its environment. OST is used during Phase 1 to clarify the key issues affecting the future of a school system. It also mobilizes passion, responsibility, and commitment within a school system and its community.

The desired outcome of an OST session during Phase 1 of KWS is to generate ideas, passion, and commitment for the potential of a school
system to create a better future for its students as well as for its community. This session helps to define broad educational issues that are important for a wide cross-section of people from within the school district and the community. These issues provide invaluable “front-end” information for the strategic planning process (the Search Conference) that follows later in Phase I.

Objections to KWS and Examples of KWS Use

Some readers will look at KWS and ask: “Where are the kids in this? Where is the focus on learning?” Improved learning is at the heart of KWS, but we propose to improve student learning by developing a school system’s capacity for systemic improvement. We also propose to improve teacher learning and system learning. We believe that focusing on student learning alone is a piecemeal approach to school improvement.

The KWS philosophy for building a school system’s capacity for improvement is supported in the literature. For example, O’Day, Goertz, and Floden (1995) said:

The most critical challenge is to place learning at the center of all reform efforts—not just improved learning for students, but also for the system as a whole and for those who work in it. For if the adults are not themselves learners, and if the system does not continually assess and learn from practice, then there appears little hope of significantly improving opportunities for all our youth to achieve to the new standards. (p. 1)

Some people will look at KWS and say, “This is not new. We already . . . They fill in the blank with the name of that part of KWS on which they are focusing. For example: “This is not new. We already use strategic planning.” Or “This is not new. We already use ideas related to knowledge work.” Of course, they’re right. There is nothing new about each individual part of KWS. What makes KWS new is that these different methods, strategies, and philosophies that have been used piecemeal are now combined into a single approach to beget unity of effort for those who want to redesign their entire school system. It is this consolidation of methods, this unity of effort, that makes KWS new and extraordinarily powerful.

Some readers will look at KWS and say, “Impossible. Unrealistic. Can’t be done.” KWS can be done, and not only can it be done, it is being done. A woman in the audience at a presentation on KWS raised her hand and said, “I’ve read everything written about Knowledge Work Supervision. I want to tell you and everybody here that it works.”

Two of the core KWS methods are also being used: Search Conference and PDWs. Two real-life examples from Buzz Blick’s consulting practice show how these methods are being used in school settings (see Figures 1-2 and 1-3).

Figure 1-2. Search Conference—Marysville Middle School

<table>
<thead>
<tr>
<th>Theme:</th>
<th>To better meet the needs of the Marysville Middle School Community, how can we create a meaningful learning environment that has the capacity for continuous improvement?</th>
</tr>
</thead>
<tbody>
<tr>
<td>System:</td>
<td>The K–12 feeder-school cluster</td>
</tr>
<tr>
<td>Participants:</td>
<td>A Search Conference grouping of 40 people, drawn from the staff, families, and students at the middle school, the high school, the three feeder elementary schools, the central office, and youth serving agencies for the K–12 cluster of schools</td>
</tr>
<tr>
<td>Results:</td>
<td>Three days of intensive planning generated consensus on nine guiding principles, with action plans for the improvement of education within the entire K–12 cluster. The guiding principles became the ongoing standard against which all prospective school-based decisions were measured.</td>
</tr>
</tbody>
</table>

Note: See Systems Tool No. 4 in the appendix for details about how to design a Search Conference.
The Hilton Central School District in New York State is also using a team structure similar to KWS. The writing and thinking of Philip Schlechty influenced their approach to school district improvement. They have a District Improvement Team that is analogous to our SLT, and they have School Improvement Teams which are the same as our SLTs. The Hilton District also engages teachers in learning communities similar to our Communities of Practice. Within their CLASSIC (Curriculum-Assessment-Instruction-Change Initiative for Children) program, teachers collaborate to develop and use interdisciplinary and integrated curricula, increase performance and portfolio assessment, and align classroom curriculum to district and state standards. Another example of their use of the Community of Practice idea is found in their efforts to create Design, Review, and Implementation Teams in all their elementary schools that write curriculum, design assessments, and evaluate those projects. These communities focus their work in four areas: language arts, math, science, and social studies.

A final example of a KWS method in use is found in the Philadelphia Public Schools, led by David Hornbeck. This district is organized into K–12 clusters, each of which is a unit of change for systemic improvement. K–12 clusters are the units of change for KWS.

**CONCLUSION**

Darling-Hammond (1997) observes:

Reforms that rely on the transformative power of individuals to rethink their practice and to redesign their institutions can be accomplished only by investing in individual and organizational learning, in the human capital of the educational enterprise—the knowledge, skills, and dispositions of teachers and administrators as well as parents and community members. (p. 40)

KWS requires the use of the transformative power of individuals to rethink their practice and to redesign their school systems for high performance.

KWS is comprehensive, strategic, systematic, and systemic. It offers a way to examine and simultaneously improve three sets of critical school system variables affecting overall school system performance: the system’s knowledge work process, its social architecture, and its environmental relationships.

KWS is powered by five key players who each have a unique role to play. The roles overlap in some respects to assure strong horizontal and vertical communication linkages.

KWS builds on the power of site-based management by using that power to produce K–12 school improvements within clusters of inter-
connected schools instead of perpetuating piecemeal, building-specific improvements. KWS also charters and supports Communities of Practice as a way for practitioners to explore common needs and interests and to create districtwide professional knowledge.

KWS creates a new organizational design for school systems that is characterized by the harmonious blend of initiative through self-managing teams (which tends toward chaos) and cooperation by building in mechanisms that bring people together (which tends toward order). Dee Hock, the creator of Visa International (a living example of an organization that can be effective without being centralized and coercive) who applied this principle of blending chaos and order to create excellence, coined a term to describe it: chaordic. Hock believes that hierarchical, rule-following, controlling organizations stifle creativity and initiative at the grassroots level, and by doing this the organizations become too rigid to respond to new challenges and opportunities (Waldrop, 1996). An organization designed according to the “chaordic” principle is an “enabling organization” that unleashes the creative potential of people to solve puzzling situations that emerge in their work. KWS is a “chaordic” method that develops the capacity of school systems to respond creatively to changes in their environments and in their students’ needs, interests, and abilities.

We believe that KWS is a powerful method to improve instruction throughout an entire school district by redesigning entire school systems. It is powerful for several reasons:

- It combines, for the first time, effective concepts and methods from several different but interrelated fields.
- It transforms the social architecture of a school system from a bureaucratic design to a participative and collaborative one.
- It uses innovative methods for analyzing and improving three sets of key school system variables: the system’s knowledge work process, social architecture, and its relationship with its broader environment.
- It uses a high-involvement strategy to engage educators in a collaborative effort to improve the quality of education in their systems.
- It charters and supports Communities of Practice.
- It shifts the focus of school improvement from individual teachers and schools to K–12 clusters of interconnected schools.
- It coordinates school improvement so that the entire school system is redesigned for high performance.
- It is used for the life of a school district; it is a never-ending process of moving an entire school system toward higher and higher levels of school system performance.

If applied consistently and with patience, KWS will continually move entire school systems toward higher levels of performance. The literature on redesigning organizations by using similar models confirms this conclusion (e.g., see Pasmore, 1988, 1992; Pasmore et al., 1982; Senge, 1990a, 1990b). Furthermore, school systems will never perfectly achieve their new visions because those visions are constantly evolving. Therefore, KWS should be used continually for the life of a school system.

It is the nature of systemic school improvement that school districts must move forward from where they stand. They cannot leap to high performance; they must evolve to it. A school system’s lifelong journey of organizational learning and continual self-renewal will raise its level of performance. Nothing less will do it.

REFERENCES


Chapter 2

Teachers as Knowledge Workers and School Systems as Knowledge-Creating Organizations

In business and industry the nature of the worksite has shifted. It is now believed to exist in the mental processes of every member of the organization.

—L. A. Rhodes

Teaching is an intellectual activity. According to Yaxley (1991): It involves thinking, feeling and valuing. That is, the interaction between the teacher and the students, or indeed between student and students, which we call teaching is a series of intellectual acts. These include describing, explaining, reviewing, criticizing, hypothesizing and analyzing. All of these activities are purpose-driven. To engage in teaching is to apply a range of intellectual acts to some subject matter; and this will assist the changes of someone’s (the student’s) beliefs, values and meanings. (pp. 6-7)

In this respect, teachers are matchless knowledge workers.

School systems and the adults who work in them seek to achieve both social and educational goals. These goals are set on two pillars: (a) an assessment of students’ and society’s needs and interests, and (b) educators’ notions of what constitutes effective teaching and learning. Educators strive to help children become the makers of their own personal knowledge (e.g., see Bannister, 1970, 1977; Brooks & Brooks, 1993; Kelly, 1955). Educators seek to achieve these purposes through the teaching of knowledge represented in a curriculum. School systems as or-