This paper examines the implications of the organizational-learning concept for policy and practice in school restructuring. The organizational-learning framework emphasizes the individual and collective cognitive and behavioral transformations that occur as part of the emergence of new organizational patterns. Various models for organizational change are discussed, with a focus on managed change. Implications of the organizational-learning framework for educational change are as follows: (1) school restructuring is an important precursor to real paradigmatic change; (2) schools have deeply embedded dysfunctional learning habits that must be attacked; (3) the organizational learning framework avoids placing blame for organizational problems; (4) teachers' and principals' expectations about the nature of leadership are inconsistent with that of the organizational-learning framework; and (5) the emerging paradigm will probably result in increased centralization in U.S. schools. The organizational-learning framework has elements of both managed change (structure and leadership) and anarchy (unpredictability). The application of organizational-learning theories helps to resolve some of these issues by identifying aspects of the change process that are more or less manageable and by suggesting ways in which the subjective aspects of change may be incorporated into more traditional change approaches, such as strategic planning. (Contains 30 references.) (LMI)
BEYOND BUREAUCRACY:
RETHINKING HOW SCHOOLS CHANGE

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INTRODUCTION

Over the last decade the challenges to educators, both from within and outside the profession, have been numerous and often conflicting. Much of the time the difficulties appear overwhelming, as schools are confronted with seemingly endless challenges stimulated by changing demographics, a sense that student engagement and faith in education is declining, and problems of attracting and retaining high quality faculty and administrators to work in an embattled professional setting.

Opportunities and Risks

Yet, this is a time when there are serious opportunities for reforming the existing system. Much recent energy has gone into a wide range of commission and research reports that delineate the problems and provide clear images of excellence. There is strong motivation to act on these report at state, regional and local levels, and many states and districts are enacting massive educational reform efforts that require improved performance and offer support as well. Furthermore, spokespeople for educational reform have attracted serious public attention for nearly a decade — a sign that education is finally "serious public policy." Above all, we are well past the stage of good intentions: There are a substantial batch of tools in the form of well document, research-based programs based on the "effective schools" and "effective teaching" programs, as well as other strongly research-based efforts at major reform, such as Ted Sizer's Coalition of Essential Schools, Jim Comer's model of parent participation, and Levin's Accelerated Schools.

What Do We Know About Changing Schools?

There are many ways to approach the implementation of a reform. If we look at private industry, for example, we see a number of successful strategies to promote rapid "turnaround," but few are relevant to public schools. School systems cannot, for example, engage in massive changes in top- to mid-level leadership in order to ensure that changes in policy are carried out (Iacocca and Novak, 1984). Even if there were no administrator unions, there are simply not enough qualified and seasoned replacements available. Nor can districts cut back on unprofitable products or diversity to acquire more productive ones: Their line of business is set by law and they must deal with existing constituencies. Massive attempts to change organizational culture and goals are also found in industry, but these rely heavily on the deployment of resources for training and internal consulting that seem beyond the possible in the public or private school sector. Thus, the tradition of studying change in schools has tended to fall into a pattern that is more consistent with studies of other public sector agencies than with private organizations.

Within this tradition Elmore (1978) identifies a number of underlying assumptions from a review of policy research and other literature on educational programs. Change strategies based on a systems management perspective make the following assumptions: Organizations operate rationally and are goal directed; they are hierarchically structured; subunits can cooperate to maximize overall performance; and some form of management by objectives will enhance goal attainment. This implies that change processes are enhanced by goal setting, monitoring and accountability. Where change is viewed as a bureaucratic process, the emphasis shifts to a focus on the need to change organizational routines, under the assumption that schools are not tightly
controlled hierarchies, but spheres of delegated discretion. Bureaucracies are characterized by nature of their formal and informal routines, and examining and altering those are the key to effective change. The organizational development model assumes that interpersonal relationships dominate organizational life and the change process. The model's focus is on individual motivation, the work group as the key unit of change, and the belief that too great a focus on efficiency will undermine effective change processes. Instead the emphasis is placed on developing consensus and commitment to change, cooperation, and interpersonal support. A key premise of a conflict and bargaining change model is the centrality of competition for power and scarce resources. Bargaining is the main mode of decision-making, and change as an unstable process of negotiating preferences which rarely results in overall agreement.

Miles and Louis (1987) review the empirical literature on change, and note that it can be classified as focusing on a number of topics: The characteristics of the innovation, the characteristics of schools that are associated with effective implementation of innovations, the characteristics of the environment and the characteristics of the change process, including how the change manager should operate within the four frames outlined by Elmore.

The thread that holds all of these studies together is that they focus primarily on how administrators (those "at the top") can get a hold on managing the change process that is carried out "at the bottom." As Elmore's (1978) and Miles and Louis's (1987) reviews show, most of what we "know" from research about how to change schools falls into a paradigm that might be best called "managed change." The main focus of research is on identifying factors that improve the probability that an innovation will be successfully implemented and maintained, more-or-less as intended by its initiators. In most cases, organizational change is defined as a small-to-medium scale program, often imported from a source outside the organization, although increasing attention is being paid to larger efforts to "restructure" schools. The role of the change manager operating within this set of assumptions is articulated by Eastwood and Louis (1992).

**CHALLENGING THE IMAGE OF "MANAGED CHANGE"

The image of "managed change" as an effective strategy for school improvement has been explicitly challenged by critical theorists such as Giroux (1988), who argue that real crisis in school performance will yield radically different understandings about how education should operate, and which will be based on empowering students first, rather than professionals. Yet, recent research on change that falls outside of the critical theory tradition also raises questions about the degree to which the traditional ways we think about change management apply to processes of large-scale change.

**Challenges from the Urban High School Study**

Louis and Miles (1990) studied change processes in urban high schools that were attempting to implement major reforms based on the "effective schools" research. They focus on the role of the principal in the change process, but argue that traditional images of the change process don't apply: Change is messy, uncertain, circular and the role of the administrator or leader is unclear:

We have come to think of school improvement as a braid in which a collection of reform programs and plans becomes melded with the exiting political and cultural setting; At
best, changes are based on steady and patient efforts to work within the school as it exists, while maintaining a vision what can be... (p 15).

The image of change that is presented is evolutionary and non-synoptic; full of unpredictable "normal crises" and choices that cannot be anticipated ahead of time. The schools studied were chosen, in part, because they did not have heroic principals who could turn a nest of vipers into an academy of scholars. Nevertheless, we found that the role of the principal was critical. However, the form that leadership of change took was not at all heroic, nor did it play by the book. Among the unanticipated findings are that the most effective schools engaged in:

- **Action before planning.** "In each of the most effective schools major activities, including restructuring and the initiation of significant (and sometimes costly) new programs took place without committee meetings, and with no written plan supporting the decision" (p. 201).

- **Generating vision from activities rather than basing activities on a vision.** "More often, a vision emerges as themes become more linked, successful, and owned by people at all levels in the school... (p. 207). A saga that provides justification for the particular mix of actions evolves as the program themes change, and...helps to reinforce the meaning of the change effort (p.213).

- **Developing a school-specific vision within an externally mandated program.** "...developing a vision in schools typically involves building on...opportunities that come from outside. Leadership involves integrating compatible themes available from different programs" (p. 223).

- "**Minding the store** or a preoccupation of school-leaders with day-to-day management of change. Change managers engaged in regular, systematic scanning for problems, and exhibited "a wide range of coping efforts, matching them to the difficult of the problem at hand..." (p. 283).

Louis and Miles's view of effective behaviors in guiding schools on the journey of reform is that of:

- **Stimulators** — people who get things started, but then turn the action over to others;

- **Story-tellers** — people who help others in the schools to discuss and understand the meaning and larger significance of what they are doing as they work on school improvement; the story becomes the "braid" referred to above;

- **Networkers** — people who spend their time coordinating and creating opportunities to get people and programs together in ways that contribute to the emerging school effort; and

- **Copers** — people who focus daily on problem scavenging, and who develop a wide variety of coping styles to address the unending yet largely unpredictable
stream of barriers to change.

Although Louis and Miles frame their findings in terms of the commonly used concepts of leadership and management, the behavior of effective principals that they observed cannot be neatly classified into the categories outlined in Elmore's review. In addition, their perspective on change is in opposition to the fundamental assumptions of most writers in the managed change perspective, who assume a reasonably rational and predictable process. The notions of "evolutionary planning" and "coping" that are core concepts of the study presupposes that large-scale change will be more or less unpredictable and disjunctive.

**Challenges from the Quality of Work Life Study**

The sense that our understanding of the change process may not be effectively captured by the traditional images of managed change is further challenged by a recent study of restructured schools (Louis, 1992; Louis and Smith, 1991 and 1992). The study focused on how teacher's work was altered in schools where significant restructuring efforts had been implemented for some time, and the change process was not an explicit focus. Nevertheless, the story of how the schools became restructured, and how they maintained themselves over time, could not be ignored. Again, the data suggested that the roles played by the leaders in the schools (principals and teachers who were involved in key roles during restructuring) did not center on issues that are traditionally emphasized in the "managed change" literature.

Teachers in the eight schools in the study agreed that no matter how talented the staff, a school with an ineffective principal is unlikely to be exciting — and schools can became exciting quite rapidly after the arrival of a supportive principal. But teachers describe the role of an effective principal largely as one that facilitates their quality of work life, thus freeing the staff and the school to reach its own potential (Louis, 1992. See also Rosenblum and Rossmiller, 1991). In particular, teachers argued that good change leadership consists of:

*Providing Consistent Policies to Delegate and Empower.* Principals who create healthy environments for teachers "make teachers invent solutions to problems -- they aren't the only problem solver." The effective principal, "can leave the building without things falling apart or hitting snags, and has staff empowered to respond to crises."

*Spending time on the Details of Life in the School.* Leadership in the eight schools was not efficient. Administrators were proactive, seeking out advice, and anticipating emerging problems. They hang around, to they "know what's going on in the classrooms, in the lunchroom, etc." They have an open-door policy, and encourage drop-in visits.

*Modeling Risk Taking.* To stretch professionally, teachers must take risks in the classroom. Over and over again the teachers in these schools claimed that they were willing to do so because their principal was also willing to "bite the bullet when necessary [and] make tough decisions." One aspect of risk taking is the principal's personal willingness to confront bad teaching, coupled with supportive programs to help less effective teachers improve.

*Providing Leadership about Values.* Teachers were clear that the principal set an important tone for developing a vision and a value orientation in the school. It is impor-
tant for the principal to understand and reflect the best in community ethical standards and values, and to "make clear what is valued -- don't keep faculty guessing about what is important."

It is notable that each of the eight schools existed in a context where the district was exceptionally supportive of the school and teachers, or where the principal fiercely protected the school from distracting external demands and requirements.

**Emphasizing Caring for Students.** The theme of caring as significant aspects of teachers' work in restructured schools has been extensively developed elsewhere (Purkey, Raywid, & Smith, forthcoming). The schools, although they were all high schools, struck us as having climates and student-teacher/student administrators relationships that were more like excellent elementary schools than like traditional secondary schools.

Principals reinforced the importance of caring for individual students, and, as one teacher put it "...lending your ego for a kid to learn...you are [not] only teaching a subject and [but] teaching kids...if you are teaching the kids, you see where each kid is and what their next step is. You have to perceive all of the differences...you have to handle the resistance so that they may make steps for themselves...." Interestingly, in six of the eight schools the impetus for restructuring had been initiated by a female principal, while in a seventh the male principal explicitly espoused a philosophy that "the caring quotient contributes to the intelligence quotient."

**Actively Using Knowledge and Ideas.** In addition to what teachers told us, we also observed that the principals in these schools had another characteristic that differentiated them from principals in traditional schools: They were active and persistent users of "educational knowledge" -- not just research reports, but also good ideas emerging from practice. They were themselves linked into local and national networks for exchanging ideas, and also placed a high emphasis on getting their teachers involved in such networks.

Unlike most school principals, who may recognize the names of major writers on reform and programs, these principals had read their works, or heard them speak, and were familiar with the instructional ideas underlying reform. Without being overly idealistic, we were surprised to find that teachers in these schools (not all, but a surprising number) operated as intellectuals to a greater degree than in more typical schools. Engaging in discussion about educational issues and philosophies was not a frequent occurrence, but was also not unheard of. And, there seemed to be an association between the degree of restructuring and the emphasis on "teacher as intellectual" (Giroux, 1988).

**ORGANIZATIONAL LEARNING AS AN ALTERNATIVE PERSPECTIVE**

The findings from the two studies were not anticipated, and did not, therefore, confirm an already established theoretical framework of change. To explain them more fully requires delving into literature that has rarely been applied in educational settings. Theories of organizational learning help us to understand what restructuring may proceed well in some schools, but not in others, in ways that are overlooked by the "managed change" literature. The organizational learning framework emphasizes the individual and collective cognitive and behavioral transformations that occur in individuals as part of the emergence of new organiza-
tional patterns. Although the frame is poorly developed in educational studies (Miles and Louis, 1987), it has potential for helping to think about the problem of how schools change basic assumptions about "what it is we do here" when demands for significant reform are made.

A Definition

Although the concept of "learning organizations" has recently been popularized by Senge (1990), discussions of organizational learning go back to the cybernetic models of the early 60s (Cyert and March, 1963) and received considerable attention in the 70s as Argyris and Schön's (1974) psychological model of "single and double loop learning" became well known. However, more recent formulations emphasize that learning involves the creation of socially constructed interpretations of facts and knowledge that enter the organization from the environment, or are generated from within. This emphasis distinguishes the organizational learning literature reviewed here from studies and theories that are derived from the individual cognition tradition.

Some Key Assumptions and Their Implications for Reforming Schools

A central perspective of recent theories rests on another assumption: That learning that takes place in groups cannot be reduced to the accumulation of the learning of individuals. Organizations cannot learn in the absence of "social processing" of information (Louis and Dentler, 1989; Louis, Lagerweij and Voogt, forthcoming). Organizations also use information in the same way that individuals do. Hedberg (1981) and Senge (1990), for example, point out, that learning does not involve only psychological adaptation, but also active use of knowledge by the organization to improve its fit with the environment:

Organizations develop and maintain learning systems that not only influence their immediate members, but are then transmitted to others by way of organization histories and norms." (Fiol and Lyles, 1985: 804).

Levitt and March (1988) also emphasize the importance of organizational memory — the conservation of collective experience — as necessary for learning.

Thus, when thinking about schools and restructuring, we are inevitably drawn to the argument that changing education will involve more than improving the credentials and inventive-ness of individual teachers, the climate, or the leadership capacities within a school. Rather, collective processes for processing and dealing with new ideas must be addressed. This presents a serious challenge to current models of schooling, which are reflected in a structure in which teachers interact almost exclusively with pupils and rarely with each other. In the absence of opportunities to interact, theories of organizational learning would predict a low capacity for change and development.

A second assumption is that organizational learning can range from an accumulation of random events, occurring when individuals are able to locate factors that result in a useful statement of cause-and-effect (as implied by Lindblom, 1959 and March and Olsen, 1976) to systematic, where many individuals view the collection and processing of information from both predictable and less predictable sources as part of their daily work. Where organizational learning is more systematic, an interpretive framework is required to simplify the complexity of the world with which the members must collectively deal.
In schools, for example, we would be more interested in cases where the faculty as a whole, or large sub-groups of the faculty engaged in regular efforts to gather information and improve practice (e.g., develop a knowledge base), as compared with changes in practice that occurred as a consequence of a one-time contact between a parent and an "expert," or the chance meeting of two colleagues at a social event (Shrivastava, 1983).

Systematic organizational learning (the kind with which this paper is most interested) occurs within a paradigm, or an elaborate, widely shared theory or frame of reference that guides and organizes actions (Kuhn, 1970; Simsek, 1991). But, learning is also the source of information about anomalies that may challenge the paradigm and ultimately contribute to its replacement.

Organizations and communities of organizations vary widely in the degree to which they are tolerant of anomalies (e.g., resistant to challenges to their paradigm). Mature organizations like schools often do not respond to a crisis ("We've weathered this before—just wait and it will go away.") or engage in searches for information that will provide evidence that performance is actually o.k. The essence of transformation is to break these unresponsive reactions to crisis to reshape or reframe members understanding of mission, identity and basic operations. The process of transformation is conflictual, full of anxiety, ambiguity and political behavior, but that eventually "groups whose perspectives have been incorporated in the new understanding should experience a sense of comfort and "rightness..." (Bartunek and Louis, 1988). 4

One key issue for educational reform is the fact that schools are widely viewed as being "institutionalized" (Meyer and Rowen, 1977), which means that the external characteristics of schools have come to be more important measures of "goodness" than objective information about performance. For example, it is difficult to challenge the existing structure and organization of time in high schools even in the face of considerable evidence of poor performance because people expect that high schools will have math and social studies departments, and that instruction will take place in a set number of periods between approximately 8 in the morning and 3 in the afternoon. As a number of observers have noted, institutionalized organizations require a "paradigm shift" if they are to begin to do things differently (Bartunek, 1984; Mohrman and Lawler, 1985; Bartunek and Louis, 1988; Simsek, 1991).

Organizational Learning, Change, and Structure

A critical question for school reform is: How are serious anomalies that truly challenge current expectations about the right way to organize discovered within schools? Organizational learning provides a framework that helps to interpret some of the empirical findings from the two studies discussed above.

Daft and Lengel (1984) emphasize the concept of information richness, a condition that increasingly characterizes schools in which practitioners and administrators in schools have access to a growing density and variety of information that has implications for their work. Information richness can be handled in traditional ways: Schools can sift and reduce the amount of data to an amount that can be easily processed, or, alternatively they can confront the need to design interpretive systems to increase the flow of information into and within the organization and to increase opportunities for social interpretation of information.
Daft and Huber (1987) expand on these themes. They define multiple forms of the organizational learning process (each of which corresponds to a theory of planning). There is the kind of *incremental adaptation* that is based on small-scale adjustments to changing conditions. In this form, learning occurs through largely unanalyzed small changes—a strategy for change that has been advocated by theorists such as March and Olsen (1976), and Lindblom (1959). There is also a more *intellectual learning* style, in which the organization deliberately develops knowledge about the relationship between its actions and outcomes. As Lundberg (1989) points out, this kind of learning is often related to efforts to significantly improve strategies for success without making fundamental shifts in the paradigm, and it corresponds well to the strategies of bounded rationality found in the classical planning and decision-making literature (Allison, 1971). Another form of learning, however, is *assumption sharing*, in which learning involves changing the pattern of shared assumptions. In the context of our effort to related the organizational learning and paradigm literature, we might define this as an opportunity for the development of a consensus about the existence of an anomaly, and a construction of a new reality—that is, a major shift. This type of learning is an integral part of the "evolutionary planning" process identified by Miles and Louis (1990: 201) in urban high schools.

Daft and Huber also argue that it is necessary to get away from traditional structural approaches to thinking about learning and information (which often emphasize problems of distorted learning, such as "information overload") or the need to reduce uncertainty and use a more interpretive mode, which emphasizes the role of *organizations as makers of meaning*, and information as meaningless until it is interpreted. This corresponds well to Louis and Miles (1990: 211-213) emphasis on the need to use stories to help define coherence in programs that are not pre-planned, but emergent.

A third main point of their article is that organizations exist in environments that vary in terms of both their information-richness, and in the equivocality of the information that is available. Where environments are relatively richer in information, and where information is more difficult to interpret and understand—a situation that increasingly characterizes North American schools and school districts—the organization must adopt a learning style that they call *self-designing*. This means that they will emphasize assumption sharing, interpretive approaches, and trial-and-error.

In summary, environmental conditions dictate the optimal learning style—which in turn defines certain characteristics of the organizational structure that will be most effective. For organizations in high-moderate information richness/high information equivocality settings, there is a need to develop decentralized communication structures, dense interpersonal networks for sharing and discussing information, and many formal and semi-formal efforts to integrate knowledge across the informal groups (meetings, special integrative roles, etc.). This contrasts markedly with the structure we tend to find in U.S. school districts which (despite Weick’s (1975) description of them as loosely linked) often emphasize tight boundary control over flow of information into the school or district, and in larger systems, an emphasis on hierarchical flows of information and routine, regulated data collection and sharing systems (Wahlstrom and Louis, forthcoming).6

**CONDITIONS FOR ORGANIZATIONAL LEARNING AND SCHOOL REFORM**

The discussion has, parathetically, referred to a variety of conditions that affect whether
or not schools are able to learn (either adaptively or to discover and incorporate anomalies) and to being to shift paradigms. A summary of some of the most important points would include the following:

**Decentralization**

Most authors agree that both organizational transformation learning (Bartunek and Louis, 1988; Daft and Huber, 1987; Senge, 1990) require considerable decentralization:

...decentralized structure features such as collateral or parallel groups or matrix structures...are more likely than traditional ones to foster the development of alternative viewpoints in an organizations. If new viewpoints and structures that support them are not present at the beginning or change or do not emerge, the organization is more likely to enter into decline than a renewing transformation (Bartunek and Louis, 1988: 110).

Decentralization may increase opportunities for organizational learning, but may impede transformation because, although decentralized organizations tend to be highly innovative, their innovation tends to occur within existing programs/projects. The authors emphasize that strong lateral relationships need to be overlaid on the decentralized organization that permit unified action when the circumstances demand it.

**Leadership**

In addition, although decentralization may be necessary in order to experiment in ways that minimize risk to the organization as a whole, or to families of organizations, systemic change demands far more central direction in the form of formal as well as informal communication and influence, largely because the process is highly political and fraught with conflict. Thus, during the period of major change, there is a need to frequently adjust the degree of decentralization versus coordination and integration. This observation may account for the fact that there is much conflict among the proposals for reform between those who advocate centralization/stronger leadership/national goals, etc., and those who advocate decentralization/school-based management and choice.

Most models of organizational transformation emphasize the need for strong, effective leadership (Burns, 1978; Bartunek, 1984; Tushman and Romanelli, 1985). The argument is similar in most cases: That organizational leaders, or the "dominant elite" have the primary influence over both the opportunity to reframe the underlying metaphysical assumptions, and which alternative assumptions will be entertained. As Bartunek (1984) points out, they may not initiate the new ideas in all cases, but they clearly determine the receptivity of the organization to alternative interpretations.

**A Paradox?**

Thus, revolutionary change appears to demand a model of organization in which both leaders and subordinates exercise a great deal of influence. The organizational learning literature explores this issue further, suggesting that decentralized designs demands integration through extensive informal communication systems (Daft and Huber, 1987; Senge, 1990). Without these,
it is difficult for leaders to exercise influence, or for the decentralized units of the organization to coordinate their activities (See Lawrence and Lorsch, 1967).

Handy (1990) argues that leadership in future organizations, including schools, will have to exhibit stronger conceptual skills than in the past, where knowledgeability, decisiveness and "good instincts" may have sufficed. However, they will also have to internalize the fact that they are "post-heroic" in the sense that they neither have sufficient information to lead by themselves, nor will the people who work in "learning organizations" be the type who will function well under authoritative superiors.

These perspectives help to explain the form of leadership that was identified in the "Teacher Quality of Work Life" (TQWL) study, which bears little resemblance to the images of transformative leadership developed by Burns in his study of historical figures (Burns, 1978) and reiteration in subsequent popularizations (Bennis, 1989). In contrast, the leadership style described by Handy, and exhibited by the principals in restructured schools involves "...a mixture of activities, including those of a teacher, a consultant, and a trouble-shooter (Handy, p 167; see also Senge, 1990, ch. 18). According to teachers in restructured schools, the style can be aptly described as a shift away from leadership behaviors that are traditionally masculine toward those more closely identified as feminine.

The Knowledge Base

March (1991), argues, based on Cohen and Levinthal (1990), that the tendency of the educational literature to blame the lack of change in education on the "culture" or resistance among educators is misplaced. Rather, they are limited in their ability to look for new paradigms that might be effective by the absence of "an inventory of prior knowledge that would permit them to use radically new ideas intelligently" (p. 29). The "absorptive capacity" of schools to take in and use new ideas to create alternatives is, according to this view, hindered by the low investment in research and development.

The Environment

Most learning theories suggest that the environment is the major source of information about problems in organizational performance. Furthermore, because existing patterns of schooling are institutionalized, change cannot occur without the environment also accepting the existence of anomalies. Herein lies a genuine dilemma for school reform: Although schools are extremely dependent on support from their local setting, changes in the environment are not, by themselves, sufficient to produce real reform in schools. First, the relevant constituencies must accept and agree upon an alternative vision of schooling (far more difficulty a process than generating a sense of crisis). Second, it is quite typical for schools to respond to environmental pressures by faddish behavior which results in the rapid re-cycling of poor quality innovations that do little to improve organizational performance (Nelson and Sieber, 1976).

Furthermore, an alternative vision of schooling that is imposed from outside generate rarely generates learning and real change. Compliance with external constraints must be coupled with an internal shift in interpretive perspective. When compliance occurs without learning the changed behaviors frequently disappear as soon as the pressure subsides (Bartunek and Louis, 1988), a phenomenon often noted in education (Berman and McLaughlin, 1977). High levels of
regulation may repress the ability of organizations to respond to new information readily and usually increase centralization within the organization to protect the core functions of the agency/school from interference (Schön, 1979).

The impact of the environment is moderated by its degree of complexity. Organizational learning occurs largely through observations of the experience of other similar organizations (Levitt and March, 1988): Where trial-and-error is confined to the experience of a single learning is inefficient and of poor quality. Theories of population ecology suggest that organizations that are situated in a competitive environment develop more efficient systems of diffusing major innovations and reforms but where, as is the case in education, the environment is non-competitive, learning from others is often reduced.

The Politics of Reform and Restructuring: The Limits of Learning

Incremental learning goes on continuously in effective schools that share the dominant paradigm, but it is typically of the adaptive or intellectual types described above. Second order learning, which involves challenges to the paradigm and possible paradigm shifts, will not occur without a sense that 'business as usual' cannot persist (Schön, 1979), and external pressures that make the crisis apparent. Yet the kind of dramatic learning that involves giving up old ways of thinking cannot occur without the emergence of real alternatives (Kuhn, 1970, Simsek, 1991).

Schools are becoming increasingly aware of the crisis, both as a result of failures to meet the needs and demands of changing student bodies and of external pressures from constituencies. However, only a few rudimentary new paradigms have emerged, none of which have broad acceptance among teachers, administrators, politicians and professionals. For example, Sizer’s Coalition of Essential Schools constitutes one alternative, but incomplete paradigm for secondary schools, while James Comer’s work with elementary schools provides an alternative but also incomplete model for elementary schools; Handy (1990) proposes another that is based on his call for a paradigm shift in all organizations while Giroux (1988) calls for a markedly different vision.7

The political nature of school restructuring is not avoidable, since schools represent a major public good. Educational systems and schools are expected to be everything to everybody, irrespective of other national or cultural differences. Everyone expects to have a say in education, and schools often become the scapegoat for almost every social, cultural, economic and political problem. Selecting a new vision of schooling that will satisfy all constituencies and meet all of the expressed goals is impossible. What this means is that any school restructuring has to face a particularly difficult challenge of political selection before it is able to settle into a new routine of learning.

THE DARK SIDE OF INTERPRETIVE LEARNING

Senge (1990) points out that many organizations suffer from "learning disabilities" because they make false assumptions about how well they know and can control their environment, and the value of their own experience as a learning tool. Levitt and March (1988), however, present a more skeptical view. They point out that the rich and complex interpretive process advocated by Daft and Huber may mitigate against real changes in basic assumptions: The frames that are used for interpretation are so flexible that they allow a lot of change in
practice without disturbing myths and beliefs that have value to organizational members.

Also, they point to the problem of "superstitious learning" which occurs where the relationship between action and effect is weak. For example, in periods of externally defined crisis in education public attitudes toward the possibility of reform may be pessimistic. Change in routines, no matter how promising, are unlikely to lead to rapid changes in the public's perception of the quality of education. This is particularly true where efforts to evaluate reforms are premature. Under these circumstances routines will be changed frequently in a fruitless attempt to find some that work. The fact that routines are changed frequently means that they are also less likely to work. The learning that occurs is, therefore, misleading.

Ambiguous information about success may have other effects, including "paradigm peddling" and "paradigm politics:"

Ambiguity sustains...efforts to promote..favorite frameworks, and the process by which interpretations are developed makes it relatively easy for conflicts of interest within an organization to spawn conflicting interpretations...As a result, disagreements over the meaning of history are possible, and different groups develop alternative stories that interpret the same experience quite differently (Levitt and March, 1988, p. 324).

DISCUSSION AND IMPLICATIONS FOR SCHOOL RESTRUCTURING AND REFORM

The challenge outlined at the beginning of this paper implies a change in basic assumptions about current educational practice as opposed to tinkering with the system or "plus que ca change, plus que c'est la meme chose." (Cohen, 1988). The question is whether all of the calls for reform and restructuring will add up to a period of minor adaptations within the existing vision of schooling, or to a genuine consideration of the anomalies and the presentation of well formulated competing paradigms. This is, of course, the essential question being asked in education today: Can we achieve a "second order change" that involves altering the fundamental assumptions about how our educational system should work, and for whom it should work.

Within this challenge we can turn to the issues outlined above to derive some significant implications for how we should both think about, enact and study restructuring.

Implications for Policy and Practice

(1) Few schools are currently structured to promote organizational learning, without which a paradigm shift cannot take place. In particular, even when they are decentralized they lack the dense communication networks and the easy access to outside ideas that are required for learning. Alternative paradigms may be located and developed, but unless schools can internalize anomalies for themselves, learn about new paradigms and adapt them for experimentation, restructuring will come to nothing.

Schools, at this point, exist in an environment of high information richness in two senses. First, many ideas or rudimentary paradigms sprout within and outside schools, creating a rich
source of new ideas and practices. Second, the system becomes more receptive to the information in and around the school since, during the crisis, the organization becomes more open to both internal and external sources of information.

An image of schools as learning systems begins to emerge, and with it a better understanding of how learning may be related to restructuring and reform. This image focuses on the ambiguity of practice and knowledge, on the need for lots of "doing" and "discussing" as the means to learning, on the importance of interpretation in the context of history, and on the importance of not "chunking" information or people up in ways that impede decentralized sharing. It also leads to the conclusion that changing actions (experimentation) may create changes in paradigms, rather than vice-versa.

The problem for schools is that this style of processing information is difficult to maintain because it assumes lots of opportunities for information sharing, interpretation and story-telling. This is how universities are organized (to some extent), and most R&D labs/scientific research organizations — as well as some industries (Kanter, 1983). But not schools.

Here we could argue that the restructuring of schools is an important precursor to real paradigmatic change: If we cannot design schools so that basic assumptions about teachers’ work can be shared on a regular basis, can we expect schools to become self-designing over the long run? If schools are to become learning organizations they will require a profound change in the use of time so that teachers and administrators have the opportunity work together to begin the real restructuring that will affect the paradigms surrounding the central tasks of the school:

Creating a system that will ensure a higher level of learning for all children.

(2) Schools have deeply embedded dysfunctional learning habits that must be attacked. We have referred above to superstitious learning, to the rapid in-and-out of innovations that prevents real learning, and to the rapid circulation of poor but popular ideas. Some of these result from the paucity of the R&D base that is available to schools, but some also result from patterns that are unrelated to the lack of information. Unless schools recognize these bad habits and attempt to overcome them, restructuring to provide more opportunities for learning will be ineffective.

The environment for education is, at this point, highly likely to reinforce superstitious learning and the worst kinds of paradigm peddling. If policy makers at the district and higher levels do not attend to the need for schools to break the futile cycle of continuous innovation-implementation-discontinuation of many small innovations, which reinforces the sense that "nothing will really change," the promise of the rhetoric of sweeping second order transformations of schools are unlikely to occur. Part of this effort to give schools the break that is required to develop serious learning environments must come from efforts of the educational leadership, whether it be located in Washington or in school districts, to buffer schools.

(3) Although the above discussion points to weaknesses in schools, the organizational learning framework shifts the discussion of these weaknesses away from finger-pointing (teachers are lazy and poorly trained; educators resist change because they want to protect their turf) to structural conditions that make it almost impossible for educators to respond meaningfully to the challenges with which they are presented. This is frequently just as true of new "restructured schools," which have not considered what organizational conditions are required to maintain a
vital, learning environment, as of more conventional schools. For example, two much-touted new schools that we are familiar with have provided teachers with no common planning time during the working day, and have made no special provisions for gaining access to new ideas from the field, or for information about their own performance (King and Louis, forthcoming).

(4) The expectations that most teachers and principals have about the nature of leadership in schools is inconsistent with the image of leadership presented in the paradigm shift/organizational learning literature. Principals and teachers both want the former to "be in charge" and to take responsibility for buffering teachers from the external world. Most principals insulate themselves from the day-to-day world of the school, and spend their time managing crises to the exclusion of coaching and consulting (Rosenblum and Rossmiller, 1991). Principals fear the decentralization that will bring more responsibilities for guiding and creating visions, which are important functions in the learning organization, as well as critical in managing the political process of selecting new paradigms (Alexander, 1991). This suggests another arena in which restructuring could founder, without intervention to improve the abilities and confidence of sitting principals, who must be part of the solution if they are not to remain part of the problem.

(5) The emerging paradigm will probably result in more centralization in the U.S. school system for three reasons. First, if the anomalies focus on the problem of quality, there will be efforts to monitor quality more closely. Even in decentralized industries that utilize new techniques such as "Total Quality Management" and Quality Circles, management is involved in helping to determine what quality means. This function has not previously been performed by any group outside of the local community.

Second, once the system is tuned into a particular new paradigm, a lot of initial effort will be required to establish structures, rules and expectations during the emergence period. This is likely to inspire more efforts to centralize.

Third, centralization will not be hotly resisted by professional groups. This prediction is based on the support, up to now, of centralized efforts such as national teacher certification. If implemented, these and other similar efforts will result in closer adherence to the new paradigm than to the existing one.

Implications for Theories of Organizational Change in Education

We have emphasized the implications of the organizational learning concept for policy and practice in restructuring. But, the discussion also challenges two major schools of change theory in education, while providing a possible basis for resolving their differences. One stream has viewed educational organizations as anarchic, and change as a random event. These are the theories that label education organizations as "organized anarchies" and change decisions in these organizations as "garbage cans" (March and Olsen, 1976). However, the dominant second stream is the "managed change" perspective in which organizations are seen as rational and goal-directed organizations while change is purposeful and by choice. Both view administrators as primary initiators and change agents; their difference lies in the actions to be taken by these change agents. The first group of theories argue that accumulated unplanned decisions to change made by competent and well-intentioned people will result in a natural, (largely beneficial) evolution of practice. On the other hand, the "managed change" perspectives ascribe a more strategic
decision making role to the administrators. Neither of these streams has dealt with major reforms very well. The image of change that emerges above has elements of both managed change (organizational learning is affected by structures and leadership) and anarchy (the emergence of alternative paradigms and the selection of a new paradigm is a chaotic, largely unpredictable process).

The application of organizational learning theories helps to resolve some of these issues by identifying aspects of the change process that are more and less manageable and suggesting ways in which the subjective aspects of change may map on to more traditional approaches to directing change, such as strategic planning.

NOTES
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2. My colleagues on the study who were particularly interested in change management were Sheila Rosenblum and Dick Rossmiller. Their ideas were presented in a 1991 AERA paper.

3. For example, "normative reeducative change strategies" (Zaltman and Duncan, 1976) focus on the need to change the opinions and thinking of individual members of a social group in order to change the group. Although they may consider using the group to reinforce individual change, the focus is not on the group itself. (See also Sims and Lorenzi, 1992).

4. Schön (1979), in his discussion of public organizational learning, also suggests that a "sense of impermanence" in agencies may be critical to the ability to experiment and alter typical paradigms of government behavior.

5. See also Lundberg (1989), who has developed a rather similar typology of forms of organizational learning, and Louis and Miles (1990), who characterize planning processes using similar terms.

6. U.S. schools are, of course, less regulated than are those of many other countries, particularly those of southern Europe and in developing countries. Without elaborating here in great detail, we believe that school systems in the U.S. are simultaneously loosely linked compared to these countries (for example, in the degree to which classroom practices are regulated within and across schools) and highly regulated compared to some other countries such as Denmark in the degree to which visible, programmatic differences are encouraged across schools, the degree to which schools or teachers are permitted to make changes that have any policy or political significance, etc. In general, despite the current rhetoric of school-based management and choice, there are just as many pressures currently toward tighter linkages. See Wahlstrom and Louis (forthcoming) for more discussion and cases of the highly centralized character of innovation adoption in school districts.
7. We would argue that most of the current alternative paradigm models are incomplete because they do not address all aspects of the needed changes in schools. For example, neither Sizer nor Comer deal systematically with needed changes in leadership and governance.

8. A clear example of both peddling and politics can be found in the furor within the psychiatric profession in the late 70s over the definition of homosexuality as a mental disorder. Rather than draw on scientific evidence, the profession put the issue to a vote — a strategy for paradigm change that caused many groups to get involved in lobbying for one side or the other.
BIBLIOGRAPHY


Cohen, D. Teaching practice: Plus que ca change... In P.W. Jackson (Ed.) Contributing to Educational Change: Perspectives on Research and Practice. Berkeley: McCutchan.


