This paper examines the incompatibility between organizational structures and the efforts used to improve student learning. Following a brief introduction, it outlines why school improvement is so problematic. The essay makes the case for the incompatibility between the structure of schools and the demands for school improvement. To make this argument, it incorporates two frameworks into the discussion: Parsons' levels of organization, and Weick's loose coupling. From there, the text offers a new leadership framework that can rebuild school structure and thus better accommodate the demands for school improvement. This new framework would lend coherence to an otherwise loosely coupled system incapable of articulating effectively across levels of organization. Since sustained school improvement is not possible without a strong connection across levels of organization, a recoupling of the system would allow for a strong external infrastructure that could sustain stable political environments and facilitate the integration of resources outside the school. Three levels of organization--the technical core, managerial, and institutional--can then coalesce and allow purposeful interaction within and across these levels of organization. Some examples of the successful integration of these levels of organization are provided, along with figures and tables that document these successes. (Contains 10 tables and 52 references.) (RJM)
Improving Student Achievement:
Some Structural Incompatibilities

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Improving Student Achievement: Some Structural Incompatibilities

My purpose in this paper is to examine the incompatibility between the structure of organizations and efforts to improve student learning. I develop this analysis in four parts. After a brief introduction, I begin with a few ideas about why school improvement is so problematic. Then I make a case for the incompatibility between the structure of schools and the demands for school improvement. Two frameworks are useful here: Parsons' levels of organization and Weick's loose coupling. Next I introduce a new leadership framework, the purpose of which is to rebuild a new school structure, which may better accommodate the demands for school improvement. Finally I discuss one state's successful experience with school improvement, which I believe is compatible with the new leadership structure I propose.

Beginning in the mid-1980's, the "excellence movement" was launched which, challenged educators to improve the academic performance of America's schools. The reform movement is now more than a decade old. There are numerous reports that demonstrate that it is possible to find effective public schools where administrators, teachers, and parents collaborate to produce high achievement for all students. But these successes occur in only a small number of schools. We still cannot account for the fact that some students master academic content and many others do not. Most schools and school systems are not organized to effectively support and encourage learning.
The answer to this problem is to determine how to improve teaching and learning in whole school systems instead of merely in isolated schools (Elmore, 2000; Fullan, 2000). The mantra the “school is the unit of improvement” was based on the misguided belief that individual teacher professionalism would produce excellent schools. The most recent literature (Elmore, 1995, 2000; Fullan, 1999, 2000a, 2000b; Louis, Toole, and Hargreaves, 1999) suggests that we need to modify that belief. The school will always be the primary unit of intervention, but without a supportive policy environment and resources outside the school, the chances of enduring change and improvement are limited. Similarly, research (Elmore, 1997; Elmore and Burney, 1999; Louis and Kruse, 1995; Tye, 1987) suggests that unless improvement efforts penetrate the classroom and affect individual teachers directly, we will continue to find far more variance within and between schools (Louis, Toole, and Hargreaves, 1999).

The Problem of School Improvement

School improvement has been well studied over the past decade. But change in schools has been problematic for several reasons. First, successful change occurs in only a small number of schools; that is, these reform efforts have not been widely replicated from one school context to another. Second, there is no guarantee that the change will last. Put another way, there has been strong adoption and implementation of change and improvement, but not strong institutionalization; that is, the innovation did not become integrated into the school system’s mission and organizational structure.
Third, and equally problematic, is the impact of the change. Has the change reached the classroom? Have students been positively and significantly affected by the change?

Of these problems, one of the most perplexing continues to be how to make changes in the "substantive core of teaching and learning" - what it is teachers actually do in their classrooms (Elmore, 1995; Fullan, 1997; Louis, Toole, and Hargreaves, 1999; Tyack and Cuban, 1995). There is a great deal of school improvement activity that is ultimately unconnected to any improvement in student learning.

The main reason for the failure of these reforms to endure and penetrate the classroom is that many of the principle structures and roles of schooling remain remarkably stable over time, despite repeated efforts to change them (Ogawa, Crowson, and Goldring, 1999). Reform is more likely to be altered to "fit" existing structures than to result in major organizational restructuring. That is, many changes remain at the organizational periphery rather than penetrate to the "deep" structure of schooling (Cuban, 1988, 1992; Tye, 1987). Both local school development and a supporting infrastructure surrounding the school are critical for lasting success and penetration into the technical core of teaching and learning.

If school improvement efforts are bent to fit comfortably into schools as they are currently structured – and this has been the typical pattern of every major reform in the 20th century – improvement efforts will be weakened and unrecognizable by the time they reach the classroom. In this case, a strong basic education for all students will be diminished. But it is also possible that public schools will find a way to initiate and sustain a major
organizational restructuring. If successful, the organizations that emerge will probably not look anything like the current ones, but a strong basic education system is more likely to endure and flourish (Elmore, 2000).

Decoupling

Talcott Parsons (1960) delineated a framework which describes three fundamental levels of an organization – technical, managerial, and institutional. In education, the technical level is concerned with the teaching–learning process. The managerial level refers to the administration and organization of schooling. The institutional level is concerned with the relations between the school and its external environment – both close relations, such as those with school boards and their representative functions in the local community, and more distal relations, such as those with the state and other economic, political, and social dimensions of society.

The belief that educational systems may be designed to articulate efficiently and effectively across these organizational levels is questionable. Decisions made at the state or school board may have little impact on the "real work" of school administrators (superintendents and principals), much less in the classroom (teachers and students). For example, the relations between state policy making toward school reform and instructional improvement practices in schools "rarely make broad or close contact with instruction" (Cohen and Spillane, 1992, p.11) Two kinds of structural fragmentation typically occur. First, state–district–school articulation is not will connected. Second, the articulation across levels of organization is complex: the responsibility for organizational implementation is fragmented
and given to a variety of individuals, each of whom has little interaction with the others (Spillane, 1998).

School systems operate in an increasingly complex milieu. Organizational analysts who study the structure of organizations have coined a term for the way our schools are organized: "loose coupling" (Weick, 1967). To reinforce this view, a "grammar of schooling" has been well institutionalized in our schools composed of subjects, specialized subjects, grades, grade levels, and individual teachers in their classrooms forming a foundation of organizational stability. The combination of these characteristics can balkanize schools into isolated units that only sporadically communicate between and among classrooms, schools, and levels of organization. Thus, many structural innovations have not affected substantive changes in the core of teaching and learning (Elmore, 1995, 2000).

The administrators who manage our schools do not manage the way its basic functions are carried out. Put another way, school administrators have little to do with the technical core of education – teaching and learning. Teachers' work is guided more by inherited practices than by any clear and common view as to what is to be taught, how it is to be taught, why it is to be taught, and how learning is to be evaluated (Cohen and Spillane, 1992). And in many cases there is no support from the organizational infrastructure that surrounds them. Furthermore, the knowledge base that guides the teachers' classroom decisions is not formalized or even agreed upon (Elmore, 2000). Moreover, there is a lack of clearly defined success criteria. Social myths of teacher professionalism and teacher autonomy help to "buffer" the classroom
and its instructional activities from the uncertainties of close evaluation and inspection by the external environment.

Administrators, then, do not manage instruction. They manage the infrastructure surrounding the technical core of teaching and learning. They "buffer" to protect their core technologies. Superintendents and principals hold strong organizational allegiances and seek distancing from their clients to protect their autonomy. They perform ritualistic tasks, such as planning, organizing, budgeting, and dealing with disruptions inside and outside of the system. These rituals help to maintain the legitimacy of the organization as a social reality to their constituents, what organizational theorists call a "logic of confidence", and furthermore help the organization to persist by "decoupling" the technical core from environmental uncertainty. Teachers work in isolated classrooms and manage the technical core. This school system hierarchy has continued relatively unchanged throughout most of the 20th century (Elmore, 2000).

Rituality and decoupling, present throughout most school organizations, can influence efforts to reform or restructure education. It explains why most innovations are not institutionalized, and why most innovations never take root in more than a few classrooms and schools (Fullan, 2000).

Proponents of restructuring note that most innovations emphasize changes in governance and management not changes in curriculum and instruction (Murphy, 1991). Others (Elmore, Peterson, and Mc Carthey, 1996) document the limited impact that restructuring has had on the instructional practices of teachers. Because teachers and administrators buffer the technical
core and because articulation among the levels of organization – technical, managerial, institutional – is complex, innovations are not connected to any larger goal or mission belonging to the school system. And because teachers work in isolated classrooms, instructional improvement is a matter of individual initiative. This leads to innovations that are highly personal and thus tend to be adopted in only a few classrooms and schools.

It is not difficult to see why school improvement is so hard to institutionalize, maintain, and replicate. It conflicts with the way public schools are currently organized. This incompatibility is not likely to be resolved in the usual way by bending the innovation until it fits into the existing organizational structure. School improvement must penetrate into the instructional core of teaching and learning. This requires the creation of a new framework of instructional improvement and a new leadership to manage it.

The New Framework

Policymakers are sending a clear message to school systems that their main focus should be to improve teaching and learning (Elmore, 2000). Will they be able to respond to the demand? In an ideal system, school improvement efforts focus educational policy, administration, and practices directly on teaching and learning. This will require district-wide leadership focused directly on learning. School leaders can accomplish this by (1) clarifying purpose, (2) encouraging collective learning, (3) providing support, (4) aligning with state standards, and (5) using data to improve practice.
Taken together, these five dimensions provide a compelling framework for accomplishing large-scale, district-wide improvement.

- **Clarifying purpose.**

  The school district and the administrators and teachers who work in it are accountable for student learning. This assertion has strong economic, political, and social appeal; its logic is clear. What teachers teach and students learn is a matter of public inspection and subject to direct measurement (Elmore, 1995, 2000). Superintendents need to develop a practical rationale for school improvement. Clearly and jointly held purposes help give teachers and administrators an increased sense of certainty, security, coherence, and accountability (Conley, Dunlap, and Goldman, 1992; Hargreaves, Earl, and Ryan, 1996; Louis, Toole, and Hargreaves, 1999; Rosenholtz, 1989). Purposes cannot remain static for all time, however. They must be constantly adapted to changing circumstances and the needs of the system. Few really excellent schools lack purpose (Louis and Miles, 1990).

- **Encouraging collective learning.**

Single-loop, linear learning that monitors whether a system is reaching its goals is replaced by double-loop learning where systems are able to revisit whether goals are still appropriate and then re-cycle as needed (Argyris, 1990).

Administrators must develop and sustain school structures and cultures that foster individual and group learning. That is, administrators must stimulate an environment in which new information and practices are eagerly incorporated into the system. Teachers are more likely to pursue their group and individual learning when there are supportive conditions in the school and school district, such as particularly effective leadership (Leithwood, 1994; Leithwood and Jantzi, 1997; Leithwood and Louis, 2000). Schools where teachers collaborate in discussing issues related to their school improvement efforts are more likely to be able to take advantage of internally and externally generated information (Louis and Kruse, 2000; Murphy, 1992). Teachers can become willing recipients of research information if they are embedded in a setting where meaningful and sustained interaction with researchers occurs in an egalitarian context (Huberman, 1993).

- **Providing support.**

School improvement efforts usually require teachers to develop the capacity to teach new state standards. Administrators need to broker the resources required to improve teachers’ abilities to teach new standards. This involves acquiring materials, information, or technology; manipulating schedules or release time to create opportunities for teachers to learn; facilitating professional networks; or creating an environment that supports school improvement efforts.
Higher state standards usually mean changes in curriculum, instruction, and assessment – that is, changes in teaching and learning. The history of school reform indicates that innovations in teaching and learning seldom penetrate more than a few schools and seldom endure when they do (Elmore, 1996; 2000; Fullan, 2000). Innovations frequently fail because the individuals who make it happen, those closest to the firing line – classroom teachers, may not be committed to the effort or may not have the skills to grapple with the basic challenge being posed (Adams and Kirst, 1999; McLaughlin, 1987). Teachers are motivated to change when their personal goals are aligned with change, when they are confident in their ability to change, and when they feel supported in attempting the change (Lunenburg, 1995; Lunenburg and Ornstein, 2000). To gain commitment of teachers and students to pursue school improvement efforts, administrators must promote school cultures that reward achievement.

- **Aligning with state standards.**

  A key task for administrators is to create a collective expectation among teachers concerning the state’s accountability criteria. That is, administrators need to raise the collective sense of teachers about state standards. Then administrators must work to ensure that teacher expectations are aligned with the state’s accountability criteria (Adams and Kirst, 1999). Furthermore, administrators need to eliminate teacher isolation, so that discussions about state standards become a collective mission of the school and school district.

- **Making data driven decisions.**
Some argue that system-wide, external accountability standards cannot reinforce practice. They can be harmful (Leithwood and Atkins, 1995). "The consequences of tightening the accountability 'screws' often are a narrowing and trivializing of the school curriculum"(p. 3). A related problem is that one externally imposed accountability model will be sufficient across all contexts and responded to equally by all schools (Elmore, Abelman, and Fuhrman, 1996).

Some recent research indicates that external accountability systems can be reinforcing. Research on the Texas state accountability system has indicated that external accountability systems can motivate teachers to change practice and improve student achievement (Fuller and Johnson, 2001; Grissmer and Flanagan, 1998; Johnson, Treisman, and Fuller, 2000; Skrla and Scheurich, 2001; Skrla, Scheurich, and Johnson, 2000; 2001).

Doing the Right Things

School accountability systems exist for various reasons. School administrators are primarily interested in a system that will help their school districts improve its teaching and learning. The Texas accountability system is designed to contribute to improvements in the teaching and learning of all students.

In Texas there have been substantial increases in the percentage of students from all population groups who pass the state-wide assessment, known as the Texas Assessment of Academic Skills (TAAS). Some of the most impressive gains have occurred in districts serving large numbers of students who are African American or Hispanic or who qualify for the federal school
lunch program. For example, in a study of four Texas school districts with high percentages of minorities and economically disadvantaged students, gaps in achievement scores among all ethnic groups have diminished over a ten year period (Skrla, Scheurich, and Johnson, 2000, 2001). (See Figures 1, 2, 3.) In addition, TAAS results summed across grades 3-8, and 10 for all students and all racial/ethnic groups in Texas have increased significantly from 1994-2000, and the dropout rate has decreased. Changes are shown in the right column of the Table 1. Furthermore, Texas students in all ethnic groups made significant progress on the National Assessment of Education Progress (NAEP) test, the only exam that provides state-by-state comparisons (see Tables 2, 3, 4, 5, 6, 7).

Other data to support Texas improvements in academic schooling include the percentage increase in the number of college bound seniors taking the SAT 1993-2000 (Table 8), percentage of 11th and 12th grade students enrolled in AP calculus, AP English, and AP government (Figures 4, 5, 6),
percentage of 11th and 12th grade students enrolled in AP calculus, AP English, and AP government by type of district (Figures 7, 8, 9), and the increase in the number and percentage of Texas and United States public school AP test takers by race/ethnicity 1993-2000 (Table 9).

It should be noted that there were a number of other statewide initiatives over the past decade that may have influenced student's performance. These include class size reductions in the early grades, state funding of extended-year programs, and pre-kindergarten. Nevertheless, in many of the successful schools and school districts, the superintendent has credited the state accountability system as a key catalyst to their improvement efforts.

The current Texas state accountability system was initiated in 1992. Johnson, Treisman, and Fuller (2000) have identified eight key factors that they believe contribute to improvements in academic achievement of all students.

- **Alignment with state standards.**

  An accountability system is more likely to promote improvements in teaching and learning when there is a high degree of alignment between the assessment system and state content standards. Content standards should communicate state expectations for what students should know and be able to do. In Texas the content standards are the Texas Essential Skills and
Knowledge (TEKS) and the assessment system is the Texas Assessment of Academic Skills (TAAS). Although there is no such thing as a perfect alignment, the Texas assessment system and the state’s content standards are well aligned; that is, what is taught is what is tested.

Results that inform instruction.

Results of assessments in Texas are rendered in six weeks and provide useful information to teachers and administrators about the level of mastery of the concepts and skills assessed. Assessments are rendered by individual student and by school. Teachers and administrators then begin to work on the areas of deficiency identified in the assessment. Student progress is monitored every two weeks, four weeks, six weeks, etc.

- **Rating systems that encourage improvements for all populations.**

  The Texas accountability system requires that each student population group (all students, African American, Hispanic, white, and economically disadvantaged) meet minimal performance standards that increase each academic year. It is essential to have a system that will encourage improvements in the academic achievement of all students and all groups of students.

- **Rating systems that are understandable.**

  Some rating systems are so complex that no one can understand them. Administrators cannot explain them to teachers, and teachers cannot explain the rating system to parents. A lack of understanding of a rating system
renders administrators and teachers powerless. Rating systems have the most power when teachers and principals can come together and say, "This is where we are based on our rating. This is where we need to be in order to get the rating we want. And this is what it will take for us to get there" (Johnson, Treisman, and Fuller, 2000, p. 23).

- **Balance between school accountability and student accountability.**

To achieve a balance between school accountability and student accountability, the state must ensure that every student has a reasonable chance to learn the knowledge and skills that are included on the state’s assessment measure. This requires that the state invest heavily in the infrastructure of the education system. Such investments include equitable funding systems, small class sizes in the early grades, development of effective teacher preparation and professional development programs, and the creation of agencies that support schools and districts in teaching the state’s content standards.

- **Systems that are stable with gradual improvements.**

The Texas accountability system remains essentially the same as when it was adopted in 1992. There have been some gradual refinements that have improved the system. As a result, superintendents have been able to lead their school districts toward academic goals that are clear, measurable, and reasonably constant. "This stability is an underrated feature of state accountability systems" (Johnson, Treisman, and Fuller, 2000, p. 24).

- **Safeguards against counterproductive responses.**

Counterproductive responses of testing are provided elsewhere (Grissmer, Flanagan, Kawata, and Williamson, 2000). States with
accountability systems should examine the assessment data; ask questions about the data; and determine how the system might be fine-tuned to improve learning for all students and reduce negative impacts on students.

- **Rating systems that give everyone hope of winning.**

In the Texas accountability system, it is theoretically possible for all schools to achieve an exemplary rating (the highest rating conferred by the state). Any school that gets 90 percent of its students (and 90 percent of each racial/ethnic and socioeconomic group of students) to pass each section of the Texas Assessment of Academic Skills, maintains an average daily attendance of 94 percent or higher, and achieves a dropout rate of less than 1 percent will be rated exemplary.

Similarly, it is possible for every school to achieve at least an acceptable rating. Any school that gets 50 percent of each racial/ethnic and socioeconomic group of students) to pass each section of the Texas Assessment of Academic Skills, maintains an average daily attendance of 94 percent or higher and achieves a dropout rate of less than six percent will be rated acceptable. Thus, schools are competing against a standard. They are not competing against each other. All schools can receive respectable ratings based upon their effort and accomplishment, regardless of the accomplishments of students in other schools or districts.

For a complete breakdown of the Texas accountability rating standards, see Table 10. The last page of the appendix is an 8-step instructional process model, which was originally developed by a teacher in the Brazosport (TX) Independent School District, who was having great academic success with at-risk students. The model was adopted by the
Brazosport ISD and is now being used in many school districts across the state of Texas.

Conclusion

The new framework for leadership that I have described here provides a powerful and useful model for achieving school success. The framework is indeed compelling. Essentially it serves to lend coherence to an otherwise loosely coupled system incapable of articulating effectively across levels of organization. Sustained school improvement is not possible without a strong connection across levels of organization and a re-coupling of the system. Internal school development is necessary, but school improvement cannot occur unless the school is supported by a strong external infrastructure, stable political environments, and resources outside the school, including leadership from the superintendent and school board as well as leadership from the state.

What occurs as the three levels of organization coalesce is a fusion of three powerful forces – the technical core, managerial, and institutional. The purposeful interactions that happen within and across these levels of organization serve to mobilize commitments and energies to pursue school improvement efforts on a scale never before witnessed. Such mobilization is powerful, so as to increase capacity to overcome obstacles that are bound to surface in a school district attempting to "do the right things" – educate all children and to persist in this mission.
REFERENCES


APPENDIX
All Students  A. American  Hispanic
White  Eco. Dis.

Figure 3
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