Working Together for Reliable School Reform

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In this article we summarize major findings from diverse, multiyear studies conducted by the Systemic and Policy Research team of the Center for Research on the Education of Students Placed At Risk (CRESPAR). This article is based on findings from 16 projects and over 300 case studies, the majority of which have been multiyear and multimethod. We conclude that efforts to implement diverse reforms are more likely to be effective when educators at various levels (e.g., state, district, reform design team, school) share goals and work in concert to co-construct highly reliable reforms. Findings from our studies are discussed, as are implications for future research.

The Systemic and Policy program of the Center for Research on the Education of Students Placed At Risk (CRESPAR Program 7) has had two fundamental purposes. First, we have conducted studies to identify common characteristics of unusually effective schools and reforms within and among diverse, high-poverty contexts. Second, we have conducted studies intended to identify multilevel linkages among classrooms, schools, and systems that foster effective school improvements and thereby increase the chances of successful reform selection, implementation, and institutionalization.

The preceding articles in this special issue of *JESPAR* clearly demonstrate that research on students placed at risk has made substantial progress over the past five years. The studies present strong evidence of success at identifying characteristics of resilient students (Nettles, Mucherah, & Jones, 2000) and family support programs (Sanders & Epstein, 2000). At the school level, these studies clearly identify unusually effective schools (e.g., Cole-Henderson, 2000). Beyond identifying common characteristics, CRESPAR researchers have conducted several leading-edge efforts to develop and disseminate research-based school improvement designs (e.g., Slavin & Madden, 1998, 2000; Balfanz & MacIver, 2000; Jordan, McPartland, Legters, & Balfanz, 2000; McPartland, Balfanz, Jordan, & Legters, 1998).

At the same time, detailed quantitative and qualitative data gathered by CRESPAR Systemic and Policy researchers at a set of schools that were initially positive outliers in

achievement, controlling for socioeconomic status (SES), over an 11-year period clearly indicated that as some schools improve, others fall back (Stringfield & Teddlie, 1991; Stringfield, Teddlie, & Kemper, in process). Similarly, data gathered by Program 7 researchers in the Special Strategies Studies (Stringfield et al., 1997) and as part of the Memphis Restructuring Initiative (Datnow & Stringfield, 1997; Ross, Wang, Sanders, Wright, & Stringfield, 1999; Smith et al., 1998) have indicated that while some schools have improved dramatically, others using the same reforms have not. Yonezawa and Stringfield (2000) have documented the processes by which even some initially successful reform models have failed to institutionalize after achieving seemingly solid multiyear implementations. In spite of many well documented challenges to reform, the Systemic and Policy group has described diverse cases of initially successful schools and reforms being maintained for ten years or longer.

Given those successes and failures, one of the most important questions is how to support and sustain potentially effective reforms. This has been the fundamental task of CRESPAR's Systemic and Policy program. Today's scholars are fortunate to be conducting research in an era in which we have a much larger and more practical knowledge base about school change than we did than a decade ago. We know that the improvement of schools is possible when the reform effort is well thought out, when teachers are active agents in the change process, when there are sufficient resources and time to support reform, when capable leadership is present, and when school cultures change along with school structures. These tenets about school change, which have been detailed by Fullan (1991), Sarason (1996) and others, have become common knowledge. Equally commonplace is our knowledge that reforms, even demonstrably effective reforms, often are not sustained. Reforms that are adopted only to fade over time are obviously of less value to students and teachers than successful reforms that are sustained.

Twenty years ago, Edmonds (1979) demonstrated that individual schools have indeed made a substantial difference in the academic performance of students placed at risk, and this finding has been repeatedly replicated (see Levine & Lezotte, 1990; Teddlie & Stringfield, 1993; Teddlie & Reynolds, 1999). Recent research at Johns Hopkins University's Center for Social Organization of Schools (e.g., Slavin et al., 1996; Stringfield et al., 1997; Datnow & Stringfield, 1997; Ross et al., 1999) and elsewhere (for reviews, see Slavin & Fashola, 1998; Nunnery, 1998; Herman et al., 1999) has clearly indicated that school-level improvement of academic achievement is possible in schools serving large percentages of students placed at risk.

Given that data have been particularly strong regarding the potential for improving school-level achievement, one might expect to have seen large gains in the achievement of low-income and racial minority students over the past 15 years. Yet data from the National Assessment of Educational Progress, our nation's most credible measure of long-term achievement, have indicated more small ticks upward and downward than any steady trend. This has been true in reading, writing, science, and mathematics (Mullis et al., 1994; Donahue, Voelkl, Campbell, & Mazzeo, 1999; Campbell, Voelkl, & Donahue, 1997).

This seeming paradox can be partially explained by the fact that reforms, even reforms that clearly bring with them student achievement gains, have been implemented in relatively few schools and districts, much less stabilized over time. Schools, and even more often, districts, are continuously awash in new programs and change efforts. As one school or district improves, another diminishes in effectiveness (see Teddlie & Stringfield, 1993; Stringfield et al., in 2000). Fullan (1992) has argued that,

> Neither grass-roots nor top-down approaches work by themselves. . . . The solution is neither more nor less centralization, but rather it lies in the area of increased interaction and negotiation between schools and area or

> central offices, and investment in the development of capacities at both levels. (pp. 77-78)

In other words, the sustainability of a reform relies on support from multiple levels. However, these levels are typically ill coordinated, hence creating major obstacles to long-term school improvement.

In this article, we draw on diverse studies conducted by the Systemic and Policy team to discuss key stages in the school change process, predominantly change that comes about through the use of externally developed reform designs. These stages include the adoption of a reform design, issues of implementation, and the sustainability of reform over time. We also discuss the absence of school improvement, including the expiration of reforms and the stagnation of schools over long periods of time. We consider how implementing an externally developed reform design can lead to more nearly reliable schools and systems, arguing that this occurs only when educators, policy makers, and design teams successfully work together to "co-construct" reform.

We use the term *externally developed reform design* to refer to a model for school improvement that is developed by an organization outside the school. Examples of such reform designs include Success for All/Roots & Wings (Slavin et al., 1996; Slavin & Madden, 2000), the Comer School Development Program (Comer, Haynes, Joyner, & BenAvie, 1996; Haynes, 1998), the Coalition of Essential Schools (Sizer, 1996), and the New American Schools (NAS) Designs (see Stringfield, Ross, & Smith, 1996, for descriptions of the NAS Designs), among others. The *design team* is the group that conceives of a reform design; engineers the principles, implementation strategy, and/or the materials that accompany the reform; and sometimes provides support to schools and districts in the form of training, consulting, or other types of professional development. Reform designs array on a continuum of those that specify detailed approaches for addressing all of these components to those that are much less specified, leaving some or all of the details of reform to school site educators. For the most part, these differences

in approaches reflect the design teams' varied philosophies about the key problems in schools and how best to address them.

FRAMEWORK

Our framework for this paper is the result of an effort to bridge prior theorizing on school reform by both authors. Stringfield (1995, 1998) and others (Reynolds, Stringfield, Creemers, & Teddlie, in process) have argued that the High Reliability Organization (HRO) research base from other fields (LaPorte & Consolini, 1991; Roberts, 1993) can be applied to education. HROs are complex organizations that operate under the very unusual requirement that every important function must work correctly "the first time, every time" (LaPorte & Consolini, 1991). Over time, they have become remarkably reliable in doing a few important things while avoiding "catastrophic failures" in a few critical areas (e.g., air traffic control very rarely results in mid-air collisions).

As summarized by Stringfield (1995, 1998), a school or school system could be regarded as highly reliable when the following conditions and characteristics were in place:

1. A finite set of clear goals, shared at all organizational levels.
2. A shared belief across the levels that failure to achieve those goals would be disastrous.
3. An ongoing alertness to surprises or lapses. Small failures that can cascade into major academic problems must be monitored carefully.
4. The building and maintenance of powerful databases. These databases are (a) relevant to core goals, (b) rich in triangulation on key dimensions, (c) real-time available (i.e., before failures cascade), and (d) regularly cross-checked by multiple, concerned groups.
5. The extension of formal, logical decision analysis as far as extant knowledge allows. Many regularly repeating tasks become Standard Operating Procedures.
6. Initiatives that identify flaws in Standard Operating Procedures, and honor the flaw finders.

Because high reliability requires high levels of individual professional decision making, HROs must engage in:

7. Extensive recruiting.

8. Constant, targeted training and retraining.

9. Serious performance evaluations. In HROs, monitoring is mutual, without counterproductive loss of overall autonomy and confidence. This is achievable because the goals are clear and widely shared. HROs do not engage in one-way monitoring for its own sake.

10. Because time is the enemy of reliability, HROs are hierarchically structured. However, during times of peak activity, HROs display a second layer of behavior that emphasizes collegial decision making, regardless of position.

11. Clear valuing of the organization by their supervising organization(s). All levels work to maintain active, respectful communication.

12. Short-term efficiency takes a back seat to very high reliability.

Stringfield (1995, 1998, 1999) has applied these HRO principles to analyses of implementation of diverse school reforms. He argues that externally developed school reform models or "promising programs" have advantages over locally developed reforms when it comes to achieving high reliability and systemically raising students' academic achievement. A variety of large-scale studies over the past 50 years have yielded results that are consistent with HRO propositions (see Nunnery, 1998).

HRO logic – and the logic of some reform designs – emphasizes the technical and organizational characteristics that schools need to acquire in order to become highly reliable. For schools to become HROs requires well-focused coordination among key groups within a school, district, and state. However, implicit in these changes are a host of normative and political shifts that the HRO literature does not fully illuminate, yet are clearly endemic to the process. School change is a dynamic, active process that involves changing hearts and minds as well as policies, operating procedures, and relations of power.

We attempt to bridge the HRO argument with work by Datnow and colleagues (Datnow, Hubbard, & Mehan, 1998) that illuminates the co-construction of school reform. Datnow and colleagues argue for looking at reform implementation as a co-constructed process, in which educators' actions in schools shape and are shaped by actions simultaneously occurring in diverse contexts, including the classroom, school, district, reform design team, state, and federal levels. That is, interactions in one context generate "outcomes," which in turn potentially condition the interactions of other actors in other contexts (Hall & McGinty, 1997). Attention is given to the possibilities enabled by and the constraints imposed on school reform by conditions in these various settings.

Datnow and colleagues (1998) emphasize the relationship between structure, culture, and agency and illustrate how this dynamic works in the implementation of school reform. They take the premise that social structures are the contingent outcomes of practical activities of individuals. In other words, real people–confronting real problems in classrooms, school board meetings, and reform design labs–interact together and produce the texts, the rules, and the guidelines, that are part and parcel of the school change process. Reform implementation is not an exclusively linear process by which design teams or districts "insert" reforms into schools. Rather, educators in schools, policy makers in districts, and design teams co-construct reform adoption, implementation, and sustainability. In other words, whether or not reforms "succeed" is a joint accomplishment of actors at various levels, operating within their own particular constraints.

The theoretical framework guiding Datnow and colleagues' (1998) framework is somewhat similar to Fullan's (1999) use of complexity theory as a vehicle for understanding school change, as well as Helsby's (1999) use of structure, culture, and agency as a vehicle for addressing how reforms change teachers' work. Both Fullan and Helsby argue that change unfolds in unpredictable and non-linear ways through the interaction of individuals in different settings under conditions of uncertainty, diversity, and instability.

In addition to finding defense for these tenets of change, Datnow and colleagues give more attention to the role of power and perspective in shaping reform implementation. They acknowledge that educators in schools must sometimes respond to realities that are created among powerful people and organizations -- some who may have accrued power due to their institutional, race, class, or gender position (Erickson & Shultz, 1982; Mehan, Hertweck, & Meihls, 1986). They also acknowledge that the meaning of reform varies according to a person's or organization's perspective (Bakhtin, 1981; Garfinkel, 1967).

In the sections that follow, we discuss findings from our group's work that relate to critical points in the school reform process in light of this conceptual framework that attempts to bridge our work on HROs and "co-construction." For example, we illuminate instances where powerful people or circumstances encourage reform, where educators work towards continuous school improvement or high reliability or, conversely, the maintenance of the status quo. Our overall purpose is to show how schools, districts, design teams, and states work together – or do not work together – for school change.

METHODS

This article synthesizes findings from prior and ongoing research in CRESPAR's Systemic and Policy Studies Program that has been conducted by ourselves along with some of our colleagues. Table 1 provides a list of studies undertaken and/or reported by this group in the last five years. In particular, we report on data from the Memphis School Restructuring Initiative (Datnow, 1999; Datnow & Stringfield, 1997; Ross et al., 1999; Smith et al., 1998), the longitudinal follow-up of the Louisiana School Effectiveness Study (Stringfield et al., in process), the Special Strategies Follow Up study (Stringfield & Yonezawa, 1999; Yonezawa & Stringfield, in process), the International School Effectiveness Research Program (Reynolds et al., in process; Heyman & Stringfield, in process), and the qualitative study of Success for All (SFA) implementation (Datnow & Castellano, 1999), all funded through CRESPAR.

Table 1
Studies Conducted by the Johns Hopkins Systemic and Policy Team, 1994-1999

Study	Funding Source	Fieldwork Years	Number of Schools: Longitudinal	Single Yr.
Louisiana School Effectiveness Study	CRESPAR (Phase 5)[2]	1984-1997	16	
Special Strategies (and follow-up)	CRESPAR (Follow Up)[1]	1990-1993, 1997-1999	25	18
Memphis Restructuring Initiative	CRESPAR[3]	1995-ongoing	34	
International School Effectiveness Research Programme	CRESPAR[4]	1994-1997	66	
Title I Program Improvement	CRESPAR	1997-1999	8	
Success for All Case Studies	CRESPAR	1997-1999	3	
"Scaling Up" Reform in Multilingual Contexts	CREDE[5]	1996-ongoing	13	30
Reform and Students At Risk	OERI	various-1996	12	
Calvert/Barclay/Woodson	Abell Foundation	1990-1999	2	
Core Knowledge National	Brown Fdn. & Walton Family Fdn.	1995-1998	12	
Core Knowledge Maryland	Abell Foundation	1994-1999	6	
Baltimore Curriculum Project	Abell Foundation	1996-ongoing	5	
Dunbar-Hopkins	Johns Hopkins U.	1997-ongoing	1	
California High-Poverty, High-Achieving Secondary	CA Dept. of Ed.	1998-ongoing		20
Single Gender Public Schooling	Ford and Spencer Fdns.	1997-ongoing	6	
High Reliability Schools	Various	1996-ongoing	8	20

Totals:				
# of Projects:	16	# schools:	219	88
# of states in which data were gathered:	32			
# of countries in which data were gathered:	8			

Notes.
[1] Original 3 year study funded by U.S. Dept. of Education, Office of Policy and Planning
[2] LSES Phases 1-3 funded by La. Dept. of Education, Phase 4 funded by Center for Research on the Effective Schooling for Disadvantaged Students, OERI
[3] Additional funding provided by the U. of Memphis Center for Research on Educational Policy, and OERI
[4] Each nation's research team procured funding, and funding for "Intervisitations" provided by the Danforth Foundation
[5] Center for Research on Education, Diversity, and Excellence

We also draw on data from a study of six reforms in 13 schools in a culturally and linguistically diverse school district that we call "Sunland County" (Stringfield, Datnow, Ross, & Snively, 1998; Datnow, Hubbard, & Mehan, 1998; Yonezawa & Datnow, 1999). This study is funded through the national Center for Research on Education, Diversity, and Excellence (CREDE). We draw upon findings from a 3-year, privately funded study of the implementation of Core Knowledge Sequence (Core Knowledge Foundation, 1998) in 12 schools nationwide (Datnow, Borman, & Stringfield, in press; Stringfield, Datnow, Borman, & Rachuba, 1999). Combining resources from CRESPAR, CREDE, and other sources, the Systemic and Policy team has conducted over 300 case studies of positive and negative outlier schools and schools implementing any one of diverse reforms during the 1990s.

All 16 of these studies have involved/involve conducting longitudinal, qualitative case studies of stability and/or change over time, combined in most cases with quantitative studies of student achievement. The case studies have yielded multiple sources of rich data gathered in extensive interviews with teachers, principals, design team representatives, and district administrators, and in observations of classrooms, schools, staff development sessions, and meetings. (For more specific information on the methodologies used in each study, please consult the aforementioned publications).

FINDINGS

We discuss findings as they relate to three phases of the life of school reform: adopting a specific reform, implementing the reform, and ensuring its longevity.

Adopting Reform Designs

Our diverse studies of school reform efforts in high-poverty contexts have led us to conclude that there are advantages to whole-school (as opposed to partial) reform efforts, that there is value in schools' partnering with external design teams, and that there is potential pay-off in "scaling up" research-based reforms. (For supporting data, see Slavin et al., 1996; Slavin & Madden, 2000; Stringfield et al., 1997; Ross et al., 1999; Nunnery, 1998). All of these findings point toward the

adoption of whole-school reform designs as a possible vehicle for school improvement. Importantly, those same studies strongly suggest that *how* schools go about adopting a reform design is of critical importance.

We have found that schools' choices for reform are the product of a dynamic relationship among practical, often previously existing conditions (e.g., time constraints, district policies), school cultures, and diverse peoples' goals and actions in many interacting sites and settings. In some schools, educators chose reforms that were well matched to schools' needs, interests, and cultures (Datnow, 1999; Stringfield, 1999; Yonezawa & Datnow, 1999; Stringfield & Yonezawa, 1999; Yonezawa & Stringfield, 2000). Not surprisingly, these schools typically had more success in implementing and sustaining reforms.

However, in several of our studies we found that educators adopted reform models without thinking through how the model would suit their school's goals, culture, teachers, or students. In these schools, educators did not fully examine even a small proportion of the available options, or the practical implications of their choices before selecting specific designs. Even when opportunities to gather information were available, educators seldom made well-informed choices about reform designs. Lack of time for locating and examining options was often an issue. Faced with the pressing realities of low test scores and/or district/state mandates to "do something dramatic" to improve, schools often scrambled to adopt "a reform,"[1] rather than the most plausibly implementable and effective reform in a particular school's context.

Policy and political decisions at state and district levels also often influenced schools' adoption of external reform designs, which also caused some local educators to adopt models quickly and without careful consideration of "fit." For example, in Memphis, superintendent Dr. Gerry House's promotion of the New American Schools (NAS) reform models powerfully influenced educators toward adoption of those particular designs. The principal of one school in

[1] One of the challenges facing schools during the early and mid-1990s was the lack of a readily available, integrated review of diverse designs and research on their effects. At the end of the decade, that void has begun to be filled, especially with the publishing of three reviews: Northwest Regional Education Laboratory's (1998) review, Slavin and Fashola (1998), and Herman et al. (1999).

Memphis remarked, "the handwriting was on the wall"–that is, "the emphasis of the superintendent is to have every school in a reform effort." Power and politics played into design choices – and in many cases, schools felt pressured to adopt a model quickly – either because an administrator was in favor of reform or because there was funding available.

How decisions were made influenced the way educators perceived the reform and ultimately influenced the success of implementation. For example, in one SFA school in California, 80% of the teachers voted in favor of SFA, but according to a teacher, "Some of the [teachers] felt railroaded," because the principal was so enthusiastic about the program. Another teacher disagreed, saying "it was a fairly collaborative process." In the end, the teachers agreed that the school needed something to help raise student achievement and therefore were willing to try SFA. However, three years into implementation of the program, teacher buy-in remained a critical issue, with some teachers still complaining about how the reform was initially introduced at the school.

In general, we found that reform implementation faltered when the adoption of the reform was not preceded by careful consideration of each school's culture or specific needs or when educators at the local school site did not participate in these very important choices. Researchers from the RAND Corporation who are conducting a nationwide study of the NAS scale-up reached similar conclusions. They found that lower implementation levels resulted when schools felt forced to adopt designs, felt improperly informed, or encountered strife and tension prior to design adoption (Bodilly, 1998).

We believe that one of the reasons for these hasty reform selections related to school faculties' lack of prior experience with making whole-group reform choices. If schools are to move from being *adapters* to district mandated reforms to *consumers* of reforms, an entirely new set of skills will have to be developed by these newly empowered groups. In the majority of our sites, these new skills of group decision making and group information processing had not yet matured. As a result, many decisions were not made by groups, but were made by individuals (i.e., the principal) or a very small group of teachers working in concert with the principal.

In the course of our work, we have documented some of the ways in which the process of adopting reforms can be more effective. First, principals need to be well-informed students of and potential leaders of reforms. However, principals can no more force staff to reform than can the coach of a soccer team "force" players to play as a team, or can Congress "force" compliance with a proposed law. In each case, the leadership (principal, coach, Congress) needs genuine member (teacher, player, citizen) buy-in.

Teachers need to be assisted and encouraged to identify school-level problems and to consider how the various reforms may help address these problems. In this regard, we have found that a process of critical inquiry can play an important role in choosing a contextually plausible reform and in promoting good choices of reform as well as long-term teacher development. Principals and staffs need to choose reforms with a clear sense of their school's strengths and needs (Stringfield, 1998). Finally, districts, states, and design teams need to adopt a proactive stance in getting useful – and accurate – information about reforms to schools and substantially lengthening the time in which decisions are to be made. Indeed, these are all strategies that fit with a high reliability organizational framework and help schools work toward positive changes.

Implementation Issues

A reform can only impact students if it is implemented. Research from the Follow Through Study (Stallings & Kaskowitz, 1974), Disseminating Efforts Supporting School Improvement (DESSI) (Crandall et al., 1982), Special Strategies (Stringfield et al., 1997), and Core Knowledge (Datnow et al., in press; Stringfield et al., 1999) have all reached the common-sensical conclusion that level of implementation is a significant predictor of student achievement gain. In each case, this level-of-implementation gain was over and above any general positive effect of participation in a particular program.

A recent study by Nunnery and colleagues (in press) found that the quality and completeness of SFA implementation were highly correlated with student achievement gains.

Yet, how faithfully schools must implement many other reforms to achieve desired outcomes has yet to be fully explored (Elmore, 1996; Stringfield et al., 1997). Researchers from the "Eight Year Study" (Aikin, 1942), through the RAND Change Agent Study (Berman & McLaughlin, 1978; McLaughlin, 1990), and more recent assessments (Stringfield et al., 1997; Stringfield et al., 1999) have found variation in implementation to be ubiquitous. Variation in implementation is due in part to the strong and typically sensible need for educators to mold reforms to suit their local contextual demands. While some reform design teams market their models on the basis that they can be implemented in any school, anywhere, at any time, in exactly the same way, research and common sense suggest otherwise. Across the 16 studies listed in Table 1, we found no instance of a reform being highly implemented if the reform failed to be sensitive to local realities. As Fullan (1999) has observed, a reform must address local conditions in order to be successfully implemented. This clearly requires some degree of flexibility on the part of the design team.

Local context played a very important role in the implementation of reform models in our studies. First, we found that local conditions frequently led educators to modify reform designs. For example, in two California schools, teachers' consistent efforts to lengthen the time allotted for parts of SFA were viewed by teachers as necessary to adapt to their particular students' needs (Datnow & Castellano, 1999). In this study, the level of teacher support for SFA did not necessarily predict the degree of fidelity with which teachers implemented it. Rather, almost all teachers made adaptations of one type or another. This finding points to the fact that local educators actively engage in the construction of school reform, not just respond to external reform designs in a lockstep fashion, even when reforms are comprehensive and highly specified. Teachers inevitably implemented reforms in terms of their own "pedagogical pasts" (Tyack & Cuban, 1995).

Related to the issue of context, we found that educators' and policy makers' ideologies about race, social class, and gender also influenced implementation (Datnow, 1998; Yonezawa & Datnow, 1999; Hubbard & Mehan, in press). In some schools (and entire districts), educators

specifically chose reforms on the basis that they had been used in schools serving populations that were demographically similar to their own. In other cases, educators resisted or thwarted the implementation of reforms that they felt were not well suited. For example, a teacher in one school felt that the Audrey Cohen College System of Education required adaptations for the low-income, recent immigrant Hispanic students in their school, who were "culturally" more accustomed to teacher-directed than student-centered instruction. We also encountered schools where Limited English Proficient students did not receive as many benefits of the reform because they were perceived to be unable to understand material, or when policies dictated a different form of instruction for them (Stringfield et al., 1998). Again, these are examples of local adaptations that are driven by educators' ideologies and as well as existing policies.

Some design teams complained that local educators were not implementing their models with fidelity, thus potentially thwarting positive outcomes normally associated with the reforms (Datnow & Castellano, 1999; Yonezawa & Datnow, 1999). However, most design teams have refined their models based on educators' experiences with them. Design teams also change in response to their own organizational imperatives, growth in the number of schools implementing the model, and district, state, and federal policies.[2] In response to the Comprehensive School Reform Demonstration program funding at the federal level, several design teams are enhancing their offerings of support and resources to schools to meet the growing demand for their services. For example, the Core Knowledge Foundation (developers of the Core Knowledge Sequence) recently began offering schools a series of professional development workshops, sample lesson plans, and assistance in preparing grant applications for the federal funds. This is a significant departure from even three years ago, when neither assistance to schools nor lesson plans were provided for Core Knowledge (Stringfield et al., 1999). Overall, to date, there has not been much

[2] For example, the NAS designs assumed that "next generation" and "more authentic" local and state testing programs would proliferate and indeed predominate in the 1990s (Kearns & Anderson, 1996). However, with few exceptions, such measures have failed to appear. The NAS designs have gradually responded to the predominance of high-stakes, multiple-choice accountability systems by adding components that are more likely to increase student scores on those more traditional measures.

research on how design teams change over time and how their metamorphoses might impact schools engaged in implementation (Marble & Stevens, 1999, and McDonald et al., 1999, are recent exceptions).

Another systemic force that shaped the implementation of reforms was the level of district support that was provided to schools. Across our studies, levels of district support for reform ranged from none to extensive. We found that clear, strong district support positively impacted reform implementation, and the lack thereof often negatively impacted implementation. In the Special Strategies follow-up study, we found that schools that sustained reforms had district and state allies that protected reform efforts during periods of transition or crisis and secured resources (e.g., money, time, staff, and space) essential to the reforms (Yonezawa & Stringfield, 2000). On the contrary, schools that failed to sustain reforms were sometimes located in districts that were "infamous for experimenting with new kinds of programs," but did not provide ongoing support for any of them (Yonezawa & Stringfield, p. 48). This finding was consistent in our study of Core Knowledge as well. As one teacher in a Core Knowledge school stated: "Like all regulatory bodies, they want all kinds of change and innovation, and as long as the individual school is willing to bear the cost, they're all for it" (Stringfield et al., 1999).

Demands from the state and district levels related to standards and accountability–specifically, standardized tests–constrained or increased the tension of reform implementation. Many of the schools we studied, particularly those in Tennessee, Florida, Maryland, and Texas, are located in states with high stakes accountability systems. Teachers in these states typically felt great pressure to prepare students for "the test," separate from implementing reforms. This was especially true in two schools that were deemed by their state departments of education to be "reconstitution eligible." In those schools, externally developed reform efforts went by the wayside almost completely. Across all of our studies, the presence of a high-stakes testing program has invariably meant that test-preparation activities, unconnected to any previous or ongoing instructional activities, took precedence over traditional and/or reform activities.

Teachers rarely reported that the external demands for accountability enhanced their implementation of reforms. However, in some cases, teachers and principals hoped and believed that the implementation of reforms would help raise test scores. In Memphis, three-year test score gains on the state testing system did improve in schools implementing most of the NAS and other whole-school reforms generally, and Success for All/Roots & Wings in particular (Ross et al., 1999). Similarly, teachers at two schools clearly attributed scores on Baltimore and Maryland tests to their acquisition of the Calvert School curricular and instructional model (McHugh & Spath, 1997; Stringfield, 1999).

In summary, we have seen that when it comes to implementation of a reform design, a strong effort is required on the part of multiple actors (Stringfield et al., 1997; Nunnery, 1998). Second, in the best-case scenario, schools actively implement reforms with the assistance and flexibility of design teams and districts (Datnow et al., 1998). Long-term support and targeted staff development can help schools incorporate new practices and address local realities (Stringfield et al., 1997; Nunnery, 1998; Datnow et al., 1998). This process of support and flexibility, both on the part of the design team and the district, can help schools adapt models to local contextual needs, increases teacher buy-in, and increases the possibility that implementing a reform will actually result in school change. This is not to say that schools must develop reforms themselves, but rather that externally developed reforms must allow enough flexibility for teachers to find them workable in their schools and in classrooms. Educators choosing among reforms should attempt to gauge their *own* capacity and flexibility in incorporating new models.

In addition to these factors, we have learned about the importance of smooth, thoughtfully planned leadership transitions (Yonezawa & Stringfield, 2000; Stringfield et al., in process), as well as the importance of long-term district and state support, or, at the least, the relative absence of district-level implementation interference (Schaffer, Nesselrodt, & Stringfield, 1997; Stringfield & Ross, 1997; Stringfield et al., in process; Yonezawa & Stringfield, 2000). Local and national support networks can also assist schools in improving

reform implementation (Cooper, 1998; Datnow et al., in press). All of these features are necessary in order for an externally developed reform to lead to meaningful school improvement.

The Longevity of Reform

For a reform to lead to meaningful school change, it needs to become part of the fabric of a school, not just another passing fad. Research on school change illuminates some of the factors that might lead to the sustainability of a reform, including implementing a model that includes both a theory of education and a theory of change (Fullan, 1999), engaging in reculturing as well as restructuring (Hargreaves, 1994), and attending to political and normative dimensions of change as well as the technical (Oakes & Wells, 1996). However, very few studies have actually examined the sustainability of reform or school improvement over long periods of time, in part because few reforms actually institutionalize (Tyack & Cuban, 1995). Additionally, such studies are costly and labor intensive (Sarason, 1997; Yonezawa & Stringfield, 2000), and the reward structures of universities can be antithetical to longitudinal research efforts.

In the Special Strategies follow-up study, our team took advantage of the unusual opportunity to document the sustainability of reform over an extended period (Yonezawa & Stringfield, 2000). This study included eight schools that had implemented either an externally or internally developed reform model with at least moderate success in the early 1990s. Eight years later, we found that three schools had clearly moved toward institutionalizing their reforms; three schools struggled to maintain parts of their reforms; and two schools showed little residual evidence of reform.

The three schools that most nearly approached full institutionalization of their reforms suggest that sustainability of a reform is indeed possible. In these cases, educators and design teams successfully co-constructed reform through: (a) the alignment of the "cultural logic" of the reform design and that of the local reformers; (b) securing political support (or, at least not acquiring powerful political enemies); and (c) integrating reform structures into the daily lives of the school community. In these schools, changes in principals could be described as resulting in

shifts from visionary to cooperative leadership. High quality professional development was continuously provided at each school. Finally, administrators and faculty perceived the reforms as having met at least some of the school's original, highly valued goals. Schools that simultaneously attended to these change processes – and more importantly, the interaction between them – and received these benefits were able to sustain reforms (Yonezawa & Stringfield, 2000).

Both Phase 5 of the Louisiana School Effectiveness Study (LSES-5) (Stringfield et al., in process), and the International School Effectiveness Research Program (ISERP) (Heyman & Stringfield, in process; Reynolds et al., in process) gave us opportunities to assess how schools sustain (or fail to sustain) effective characteristics over several years. In LSES-5, we found that "positive outlier" (unusually high achieving given their SES context) schools can and occasionally do maintain their strong qualities over a decade or more. Interestingly, these schools were not necessarily "trendy," but rather were places where most things worked smoothly most of the time (Stringfield, 1998). Given that this was the study that spawned parallels between HROs and schools, it should be no surprise that the stable positive outlier schools and improving schools had clear goals, relied on rich data, recruited aggressively, and were often intensely involved in informal efforts at continuous improvement. All found ways to retain the support of their districts, and all actively worked to avoid the potentially negative "efficiency" of some bureaucratic cost cutting efforts. Equally unsurprisingly, the schools that managed to remain negative outliers over 11 years consistently lacked those qualities.

In ISERP, the research team found several "school effectiveness" dimensions, such as clear goals, high expectations and ongoing coordination, were shared by more effective schools serving high-poverty communities, regardless of country. Other characteristics, such as "strong leadership," were equally clearly not shared across nations. As with LSES-5, the variables that seemed to "travel well" were of types that might be predicted using the HRO model.

The Importance of Studying Failure

The fundamental difference between an amateur and a professional in any field is not one of intelligence or willingness to work hard. Rather, it is that professionals are trained at accessing their own research field, and therefore are much less likely to spend time repeating the others' prior mistakes. Educational reforms seem to have a less-than-glorious tradition of replicating major aspects of previous failed efforts. We believe that one of the contributions that the Systemic and Policy team can make is to document and discuss failures of school improvement efforts we have observed.

Across the studies, we observed common themes among schools that did not sustain reform or improvement over time. In LSES-5, schools that remained negative outliers rarely focused on plausible goals, did not recruit aggressively or train purposefully, did not build formal or informal longitudinal databases on students' progress, and allowed themselves to be ignored by their supervising organizations–a prescription for disaster. Even when new reforms that were valid in the abstract were attempted, the specific levels of implementation were so unreliable at so many levels that (often repeated) efforts at school improvement failed (Stringfield, 1998). In these schools, many potentially important things were regularly allowed to fail. The effect of these regularly recurring system failures was that teachers learned to retreat to the safety of their own classrooms. When new reforms came along, they looked for ways to incorporate them as superficially as possible.

In Special Strategies, the schools that never achieved strong implementations of any one of diverse reforms almost invariably had taken on the reforms for opportunistic reasons (e.g., seemingly readily available supporting funding, currying favor from a central administrator) as opposed to a deliberate response to clear local needs. Their efforts to sustain targeted professional development were often weak, and they failed to garner long-term engagement from central administrators.

Our study of diverse reforms in Sunland County provides another interesting case in point. By year three of our four-year study, only 7 of the 13 schools were still continuing to

implement their chosen reform designs. Reforms expired in 6 schools. A significant challenge to the sustainability of reforms in Sunland was the instability of district leadership and the politics that accompanied it. In 1995-96, Sunland's then-superintendent actively promoted the use of externally developed reforms. During his tenure, the district created an Office of Instructional Leadership to support the designs' implementation. The following year, however, a new district administration eliminated this office, and district support for many of the restructuring schools decreased dramatically (Yonezawa & Datnow, 1999). New mandates and priorities were introduced by the district administration, some of which did not mesh with the earlier reforms. In addition to the discontinuation of district support and changing political climate, frustration with the lack of workability caused some reforms to expire in Sunland.

Educators in Sunland reacted to the expiration of reforms in their schools with a mix of glee and disappointment. Some teachers and principals who heartily embraced the changes reform had brought to their schools felt a profound sense of loss. They also complained that this was yet another example of where support for change received no follow-through from the system. On the other hand, some teachers and principals were relieved that they no longer had to implement reforms that they felt were ill matched to their schools from the beginning. Others were simply delighted to go back to business as usual.

In sum, schools oriented toward clear goals and continuous improvement were those that had success incorporating and sustaining reforms. On the other hand, schools without such an orientation could sign on for a series of reforms and not change at all. In many of these schools, educators' ideologies, the culture of the school, and existing policy and political arrangements were not addressed in reform efforts. The schools may have ostensibly made the organizational changes, but virtually nothing had changed in the intersection of students, curriculum, and instruction.

CONCLUSIONS AND IMPLICATIONS

Our research has documented that reform adoption, implementation, and sustainability, and school change more generally, are not processes that result from individuals or institutions

acting in isolation from one another. Rather, they are the result of the interrelations between and across groups in different contexts, at various points in time. In this way, forces at the state and district levels, at the design team level, and at the school and classroom levels shape the ways in which reforms fail or succeed.

There is often value in bringing in external advice and often school restructuring designs. Yet research is clear that those experts and/or designs are not in and of themselves cure-alls. Rather, better designs work when well-supported local educators engage with the ideas and help shape them into improvements in necessarily unique local contexts. The conditions under which local school change results in a smooth and coordinated co-construction of school reform often bear strong resemblance to the conditions under which non-educational organizations become HROs.

In the course of our research on reform adoption, implementation, and longevity, we have distilled some lessons about how schools, districts, and design teams might *successfully* work together toward producing high reliability schools. These lessons include the following:

(1) There is no substitute for a finite set of widely shared goals.

(2) The goals must be tied to a long-term, whole-team focus on key measures of school improvement.

(3) Districts need a coordinated and broad-based plan for disseminating information about reform options.

(4) Schools must engage in a thoughtful, critical process of inquiry about what needs to change at their school and why before they select reforms. Good decisions about reform take time.

(5) Reform designs (and reform designers) must: (a) view local context and the diversity of the language, race, class and gender of those involved as strengths to build upon; (b) see teachers as an asset and as collaborators, not simply implementers of reform; (c) affect the whole school, not just be a "pocket program"; (d) address technical,

normative, and political dimensions of change; and (e) include equity as an explicit goal.

(6) Multidimensional, ongoing support and leadership is required from design teams, district personnel, and school site educators.

(7) Policy systems need to be aligned in order to support reform.

(8) Successful implementation requires sensitivity and adaptability (without academic compromise) on the part of the design developers, local policy makers, and educators in schools. States, districts, and design teams must be willing to change along with schools. Such active, shared growth is at the heart of both co-construction and high reliability.

Although these lessons provide a starting point, with the growing use of external reform models, major gaps remain in our knowledge of how, where, and why some external reform design teams succeed at school improvement and others do not. It is also important to understand the possibilities and boundaries of the school-external reform partner relationship and what institutional and social factors might facilitate or hinder the viability of external reforms. Finally, we need to know more about how these findings can help us improve the achievement of students from diverse language, ethnic, and racial backgrounds.

In our next five years of CRESPAR research, we are planning to conduct two studies that will provide the opportunity to further this line of inquiry. We will conduct a longitudinal, multistate study of the Comprehensive School Reform Demonstration Program (CSRD, or "Obey-Porter"). The major component of this study will involve following high-poverty schools over a period of 4 years, as the schools choose, implement, and institutionalize (or do not) various reform designs using federal CSRD funds.

Second, in the High Reliability School Systems Project (HRSSP), we will actively assist high-poverty schools and districts in creating and sustaining more nearly HRO systems for supporting teachers' and schools' efforts to build highly effective schooling for their most at-risk students. In both studies, we will retain a clear focus on multilevel change processes and

outcomes for students and educators. Our hope is that these studies, and the work of others, will move us closer to achieving the goal of dramatically improved schooling for students placed at risk.

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REFERENCES

Aikin, W. M. (1942). *The story of the eight year study*. New York: Harper.

Bakhtin, M. (1981). *The dialogic imagination*. Austin: University of Texas Press.

Balfanz, R., & Mac Iver, D. (2000). Transforming high-poverty urban middle schools into strong learning institutions: Lessons from the first five years of the Talent Development Middle School. *Journal of Education for Students Placed At Risk,* 5, 137-158.

Berman, P., & McLaughlin, M. (1978). *Federal programs supporting educational change. Vol. VIII, Implementing and sustaining innovations.* Santa Monica, CA: RAND.

Bodilly, S. (1998). *Lessons from New American Schools' scale-up phase.* Santa Monica, CA: RAND.

Campbell, J.R., Voelkl, K.E., & Donahue, P.L. (1997). *NAEP 1996 trends in academic progress.* Washington, DC: U.S. Department of Education.

Cole-Henderson, B. (2000). Organizational Characteristics of Schools the Successfully Serve Low-Income Urban African American Students. *Journal of Education for Students Placed At Risk,* 5, 77-91.

Comer, J.P., Haynes, N.M. Joyner, E.T., & BenAvie, M. (1996). *Rallying the whole village: The Comer process for reforming education*. New York: Teachers College Press

Cooper, R. (1998). Success for All: Improving the quality of implementation of whole school change through local and national support networks. *Education and Urban Society*, 30(3), 385-408.

Core Knowledge Foundation. (1998). *Core Knowledge Sequence: Content guidelines for Grades K-6*. Charlottesville, VA: Core Knowledge Foundation.

Crandall, D. P., Loucks-Horsley, S., Baucher, J.E., Schmidt, W.B., Eiseman, J.W., Cox, P. L., Miles, M. B., Huberman, A. M., Taylor, B. L., Goldberg, J. A., Shive, G., Thompson, C. L., & Taylor, J.A. (1982). *Peoples, policies, and practices: Examining the chain of school improvement (vols. 1-10)*. Andover, MA: The NETWORK.

Datnow, A. (1998). *The gender politics of educational change.* London: Falmer Press.

Datnow, A. (1999). *How schools choose externally developed reform designs.* (Technical report). Baltimore, MD: Johns Hopkins University, Center for Research on the Education of Students Placed at Risk.

Datnow, A., Borman, G., & Stringfield, S. (in press). School Reform through a Highly Specified Curriculum: Implementation and Effects of the Core Knowledge Sequence. *Elementary School Journal*.

Datnow, A., & Castellano, M. (1999, April). An "inside look" at the implementation of Success for All: Teachers' responses to the reform. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Datnow, A., Hubbard, L., & Mehan, H. (1998). *Educational reform implementation: A co-constructed process*. Technical report. University of California, Santa Cruz, CA: Center for Research on Education, Diversity, and Excellence.

Datnow, A., & Stringfield, S. (Eds.). (1997). The Memphis Restructuring Initiative: Development and first-year evaluation from a large-scale reform effort. *Special issue of School Effectiveness and School Improvement, 8* (1), 1-162.

Donahue, P. L., Voelkl, K. E., Campbell, J. R. and Mazzeo, J. (1999, March). *NAEP 1998 Reading Report Card for the Nation and the States*. Washington, DC: NCES.

Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership, 37*, 15-27.

Elmore, R. E. (1996). Getting to scale with good educational practice. *Harvard Educational Review, 66* (1): 1-26.

Erickson, F. & J. Shultz. (1982). *The counselor as gatekeeper*. New York: Academic Press.

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

Fullan, M. G. (1992). *Successful school improvement*. Buckingham, U.K.: Open University Press.

Fullan, M. G. (1999). *Change forces: The sequel.* London: Falmer.

Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice Hall.

Hall, P. M. & McGinty, P.J.W. (1997). Policy as the transformation of intentions: Producing program from statutes. *The Sociological Quarterly,* 38, 439-467.

Hargreaves, A. (1994). *Changing teachers, changing times*. New York: Teachers College Press.

Haynes, N. (Ed.). (1998). Special issue: Changing schools for changing times: The Comer Development Program. *Journal of Education for Students Placed At Risk, 3*(1).

Helsby, G. (1999). *Changing teachers' work.* Buckingham: Open University Press.

Herman, R., Aladjem, D., McMahon, P., Masem, E., Mulligan, I., O'Malley, A., Quinones, S., Reeve, A., & Woodruff, D. (1999). *An educators' guide to schoolwide reform.* Washington, DC: American Institutes for Research.

Heyman, C., & Stringfield, S. (in process). *Common and diverging themes in low SES schools in the International School Effectiveness Study.* Baltimore: Johns Hopkins University, Center for Research on the Education of Students Placed At Risk.

Hubbard, L., & Mehan, H. (in press). Race and reform: Educational niche-picking in a hostile environment. *Journal of Negro Education*.

Jordan, W., McPartland, J., Legters, N., & Balfanz, R. (2000). Creating a comprehensive school reform model: The Talent Development High School with career academies. *Journal of Education for Students Placed At Risk,* 5, 159-181.

Kearns, D. & Anderson, J. (1996). Sharing the vision: Creating New American Schools. In S. Stringfield, S. Ross, & L. Smith (Eds.), *Bold plans for school restructuring.* Mahwah, NJ: Lawrence Erlbaum Associates.

LaPorte, T., & Consolini, P. (1991). Working in practice but not in theory: Theoretical challenges of high-reliability organizations. *Journal of Public Administration Research and Theory, 1*(1), 19-48.

Levine, D., & Lezotte, L. (1990). *Unusually effective schools.* Madison, WI: National Center for Effective Schools R & D.

Marble, K., & Stevens, J. (1999, April). *Scale-up strategy of a national school reform and its evaluation design: Satellite centers of the Accelerated Schools Project.* Paper presented at the annual meeting of the American Educational Research Association, Montreal.

McDonald, J. P., Hatch, T., Kirby, E., Ames, N., Haynes, N., & Joyner, E. (1999). *School reform behind the scenes.* New York: Teachers College Press.

McHugh, B., & Spath, S. (1997). Carter G. Woodson Elementary School: The success of a private school curriculum in an urban public school. *Journal of Education for Students Placed At Risk, 2*(2), 121-136.

McLaughlin, M. (1990). The RAND Change Agent Study revisited: Macro perspectives and micro realities. *Educational Researcher, 19*(9), 11-16.

McPartland, J., Balfanz, R., Jordan, W., & Legters, N. (1998). Improving climate and achievement in a troubled urban high school through the Talent Development Model. *Journal of Education for Students Placed At Risk, 3*(4), 337-362.

Mehan, H. A. Hertweck & J. L. Meihls. (1986). *Handicapping the handicapped: Decision making in students' educational careers*. Stanford, CA: Stanford University Press.

Mullis, I., Dossey, J., Campbell, J., Gentile, C., O'Sullivan, C., & Latham, A. (1994). *NAEP 1992 Trends in Academic Progress.* Washington, DC: Office of Educational Research and Improvement.

Nettles, S., Mucherah, W., & Jones, D. (2000). Understanding resilience: The role of social resources. *Journal of Education for Students Placed At Risk,* 5, 47-60.

Northwest Regional Educational Laboratory. (1998). *Catalogue of school reform models: First edition.* Available on-line: http://www.nwrel.org/scpd/natspec/catalog/index.html.

Nunnery, J. A. (1998). Reform ideology and the locus of development problem in educational restructuring. *Education and Urban Society, 30*(3), 277-295.

Nunnery, J., Slavin, R.E., Madden, N. A., Ross, S. M., Smith, L. J., Hunter, P., & Stubbs, J. (in press). Effects of full and partial implementation of Success for All on student reading achievement in English and Spanish. *American Educational Research Journal.*

Oakes, J., & Wells, A. (1996). *Beyond the technicalities of school reform: Lessons from detracking schools*, Los Angeles: Center X, Graduate School of Education and Information Studies, UCLA.

Reynolds, D., Stringfield, S., Creemers, B., & Teddlie, C. (in process). *World class schools: Longitudinal data from the International School Effectiveness Programme*. London: Cassell.

Roberts, K. (1993). *New challenges to understanding organizations.* New York: Macmillan.

Ross, S., Wang, L., Sanders, W., Wright, P., & Stringfield, S. (1999, June). *Two- and three-year achievement results on the Tennessee Value-Added Assessment System for restructuring school in Memphis*. Memphis, TN: University of Memphis, Center for Research in Educational Policy.

Sanders, M., & Epstein, J. (2000). The national network of partnership schools: How research influences educational practice. *Journal of Education for Students Placed At Risk,* 5, 61-76.

Sarason, S. (1996). *Revisiting 'the Culture of the School and the Problem of Change*.' New York: Teachers College Press.

Sarason, S. (1997). Revisiting the creation of settings. *Mind, Culture, and Activity, 4,* 175-182.

Schaffer, E., Nesselrodt, P., & Stringfield, S. (1997). *Impediments to reform: An analysis of destabilizing issues in ten promising programs.* Arlington, VA: Educational Research Service.

Sizer, T.R. (1996). *Horace's hope*. New York: Houghton Mifflin.

Slavin, R., & Fashola, O. (1998). *Show me the evidence!* Thousand Oaks, CA: Corwin.

Slavin, R. E., & Madden, N. A. (1998). *Scaling up: Lessons learned in the dissemination of Success for All.* Baltimore, MD: Johns Hopkins University, Center for Research on the Education of Students Placed At Risk.

Slavin, R. E., & Madden, N. A. (2000). Roots & Wings: Effects of whole-school reform on student achievement. *Journal of Education for Students Placed At Risk,* 5, 109-136.

Slavin, R.E., Madden, N.A., Dolan, L.J., Wasik, B.A., Ross, S., Smith, L., & Dianda, M. (1996). Success for All: A summary of research. *Journal of Education for Students Placed At Risk, 1*(1), 41-76.

Smith, L., Ross, S., McNelis, M., Squires, M., Wasson, R., Maxwell, S., Weddle, K., Nath, L., Grehan, A., & Buggey, T. (1998). The Memphis Restructuring Initiative: Analysis of activities and outcomes that affect implementation success. *Education and Urban Society, 30*(3), 296-325.

Stallings, J., & Kaskowitz, D. (1974). *Follow through classroom observation evaluation. 1972-1973.* (SRI Project URU-7370). Menlo Park, CA: Stanford Research Institute.

Stringfield, S. (1995). Attempts to enhance students' learning: A search for valid programs and highly reliable implementation techniques. *School Effectiveness and School Improvement, 6*(1), 67-96.

Stringfield, S. (1998). Organizational learning and current reform efforts. In K. Leithwood & K.S. Louis (Eds.), *Schools as Learning Communities* (pp. 255-268). Lisse, NL: Swets & Zeitlinger.

Stringfield, S. (1999). The phoenix rises from its ashes. . . doesn't it? In J. Freiberg (Ed.), *School Climate.* London: Falmer.

Stringfield, S., Datnow, A., Borman, G., & Rachuba, L. (1999). *Evaluation of the Core Knowledge Sequence: Final Report.* Baltimore, MD: Johns Hopkins University, Center for Social Organization of Schools.

Stringfield, S., Datnow, A., Ross, S. M., & Snively, F. (1998). Scaling up school restructuring in multicultural, multilingual contexts: Early observations from Sunland County. *Education and Urban Society, 30*(3), 326-357.

Stringfield, S., Millsap, M.A., Herman, R., Yoder, N., Brigham, N., Nesselrodt, P., Schaffer, E., Karweit, N., Levin, M., & Stevens, R. (with Gamse, B., Puma, M., Rosenblum, S., Beaumont, J., Randall, B., & Smith, L.). (1997). *Urban and suburban/rural special strategies for educating disadvantaged children. Final report.* Washington, DC: U.S. Department of Education.

Stringfield, S., & Ross, S. (1997). A "reflection" at mile three of a marathon: The Memphis Restructuring Initiative in mid-stride. *School Effectiveness and School Improvement, 8*(1), 151-161.

Stringfield, S., Ross, S., & Smith, L. (1996). *Bold plans for school restructuring*. Mahwah, NJ: Erlbaum.

Stringfield, S., & Teddlie, C. (1991). Observers as predictors of schools' multi-year outlier status. *Elementary School Journal*, *91*(4), 357-376.

Stringfield, S., Teddlie, C., & Kemper, E. (2000). The Louisiana School Effectiveness Study: Phase 5. Baltimore, MD: Johns Hopkins University, CRESPAR.

Stringfield, S., & Yonezawa, S. (1999). The Special Strategies Studies: Initial and six-year follow-up findings and reflections. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Teddlie, C., & Stringfield, S. (1993). *School matters: Lessons learned from a 10-year study of school effects.* New York: Teachers College Press.

Teddlie, C., & Reynolds, D. (1999). *Handbook of research on school effectiveness and school improvement.* London: Falmer.

Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform.* Cambridge, MA: Harvard University Press.

Yonezawa, S., & Datnow, A. (1999). Supporting multiple reform designs in a culturally and linguistically diverse school district. *Journal of Education of Students Placed At Risk, 4*(1), 101-126.

Yonezawa, S., & Stringfield, S. (2000). Special Strategies for Educating Disadvantaged Students follow-up study: Examining the sustainability of research based school reforms. Baltimore: Johns Hopkins University CRESPAR.