SAND, BRICKS, AND SEEDS:

SCHOOL CHANGE STRATEGIES AND READINESS FOR REFORM

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Abstract

A variety of large-scale reform strategies are currently being applied to schools. These include systemic change strategies focusing on standards, assessments, and accountability, as well as a variety of school-by-school reform networks such as the Coalition of Essential Schools, Accelerated Schools, and Success for All. School-by-school strategies themselves vary on many dimensions, particularly on the degree of specificity and detail they provide versus the degree to which school staffs are expected to create their own paths to change. This article proposes a typology of schools in terms of their readiness and appropriateness for various reform strategies. "Seeds" schools are ones capable of developing and implementing their own reform models, and only need general principles and support. "Bricks" schools, a much larger category, are ones that would be unlikely to co-develop their own innovations, but are capable of faithfully and effectively implementing well-developed models created elsewhere. "Sand" schools are ones incapable of either creating their own models or implementing externally developed models. Means of identifying and then working with each type of school are discussed, and implications for education policies are outlined.

Over the past fifteen years, there has been a growing recognition of the need for fundamental change in the practices of elementary and secondary schools. In the U.S., the poor performance of students in international comparisons and persistent gaps between the performance of poor and minority students and that of white students have led to a perpetual climate of crisis. At the political level, calls for parental choice of schools, vouchers to allow children to attend any public or private school, and legislation facilitating the creation of independent "charter" schools amount to an admission that public schools have failed and must at least be challenged by external competitors and perhaps must be replaced with a completely new system. Proposals for reform have ranged from changes in governance and accountability standards to new designs for schools and classrooms.

The quest for fundamental change in schooling practices immediately faces a dilemma, which could be called the problem of scale (see Elmore, 1996). Any educator or school reformer knows that important changes in student performance only come about if teachers use markedly better methods and materials every day, and that this requires large amounts of high-quality professional development and a process of school change unfolding over a period of years (Fullan, 1991). The change process is not only difficult and expensive, but it is also uncertain; key changes in personnel, funding, district, state, or national policies, and other threats can and do disrupt and often terminate even the most successful reforms, and many reforms are never successful in the first place (Stringfield, Herman, Millsap, & Scott, 1996). Individual schools and pilot projects have always shown compelling examples of what schools could be (see Levine & Lezotte, 1990), but these "lighthouse" schools are rarely replicated even in their own districts, much less on a broad scale (Berman & McLaughlin, 1978).

In recognition of these difficulties, two quite different streams of reform have sprung up over the past decade. One, typically called "systemic reform" (see Smith & O'Day, 1991), is frankly pessimistic about school-by-school reform Its proponents argue that broad-scale change is most likely to occur as a result of changes in assessment, accountability, standards, and governance. The idea is that if government establishes broadly accepted standards of student

performance, and then rewards schools whose students are progressing on those standards (and punishes those whose students are not progressing), teachers and administrators will be motivated to change their practices, seek more effective methods and materials, invest in professional development, and so on. Similarly, such policies as allowing parental choice or facilitating charter schools are expected to change teachers' practices by threatening ineffective schools with closure if they cannot compete in the marketplace. In the U.S., an emphasis on systemic reform has characterized the policies of the Bush and Clinton administrations and of Republican as well as Democratic governors. In fact, in the Clinton administration, Education Secretary Richard Riley was formerly governor of a state deeply involved in systemic reform (as was President Clinton himself as Governor of Arkansas); the Undersecretary is Marshall Smith, one of the key academic proponents of systemic reform before entering government. Systemic reform strategies have many objectives, and can certainly provide incentives and resources for reform. Yet recent research on the school-level impact of systemic reforms finds very little evidence that state standards, assessments, accountability, and other policy initiatives have important impacts on day-to-day teaching and learning (Goertz, Floden, & O'Day, 1996; Newmann, King, & Rigdon, 1997).

The principal alternative to systemic governance reform attacks the problem of scale from the opposite direction. A number of organizations have designed ambitious models for school reform and then built networks of technical assistance and school-to-school support to serve ever-expanding numbers of schools that freely choose to implement their model. These models deal with the problem of scale by creating plausibly replicable models and then developing national or international training capacity, regional training sites, and mechanisms for local and national sharing of information and technical assistance. They may only start with a few schools but are intended from the outset to ultimately serve hundreds or thousands. The models fall into three categories: organizational development models, comprehensive reform models, and single-subject innovations. These are described in the following sections.

Organizational Development Models. Perhaps the dominant approach to school-by-school reform is models built around well-established principles of organizational development, in which school staffs are engaged in an extended process of formulating a vision, creating work groups to move toward implementation of that vision, identifying resources (such as external assistance, professional development, and instructional materials) to help the school toward its vision, and often locating "critical friends" to help the school evaluate and continually refine its approaches. In the U.S., the largest networks of this kind are Sizer's (1992) Coalition of Essential Schools, currently approaching a thousand middle and high schools, and Levin's (1987) Accelerated Schools network, with more than 900 mostly elementary and middle schools. Another widespread model of this kind is the National Alliance for Reforming Education, closely affiliated with the New Standards Project, which is an important organization in the promotion of state and district systemic reforms around standards, assessments, and accountability (Rothman, 1996). Comer's (1988) School Development Project has more specific guidelines for activities relating to parent participation and integrated approaches to mental health and self-esteem, but in the instructional arena it also asks each school to create its own approaches to curriculum, instruction, and professional development. The National Alliance and Comer projects also serve hundreds of schools throughout the U.S. Dozens of smaller networks of reforming schools also exist, including the Carnegie Corporation's Middle Grade School State Policy Initiative (Jackson, 1990; Felner, Jackson, Kasak, Mulhall, Brand, & Flowers, 1997), the Paideia Network built around the work of Mortimore Adler (1982), the Foxfire network, Carl Glickman's School Improvement League, and the ATLAS project, which incorporates elements of Sizer's and Comer's programs (Orell, 1996). This approach to educational reform is also common outside of the U.S. In Canada, the Learning Consortium is a network of schools influenced by the work of Michael Fullan (1991). In Britain, IQEA (Improving the Quality of Education for All) promotes a dual focus on the internal conditions of schools and the enhancement of classroom practice (Hopkins, Ainscow, & West, 1994). The National Schools Network in Australia and the Thousand Schools Project in South Africa are additional examples. These projects have in

common a philosophy of change emphasizing teachers and administrators finding their own way to reform with some guidance from the national project but few if any student materials, teachers' guides, or specific approaches to instruction.

Comprehensive Reform Models. A markedly different approach to whole-school reform is taken by comprehensive reform models that provide schools with specific student materials, teachers' manuals, focused professional development, and relatively prescribed patterns of staffing, school governance, internal and external assessment, and other features of school organization. Our own Success for All and Roots and Wings programs provide the most elaborate examples of this approach (Slavin, Madden, Dolan, & Wasik, 1996a; Slavin, Madden, Dolan, Wasik, Ross, Smith & Dianda, 1996b). Success for All, in use in more than 475 U.S. elementary schools in 31 states and adapted in four other countries, provides specific curriculum materials for prekindergarten, kindergarten, and grades 1-6 reading, writing, and language arts. Roots and Wings adds to this materials in mathematics, social studies, and science. Both programs provide one-to-one tutoring to primary-grade students who are struggling in reading, family support teams to build positive home-school relations and deal with such issues as attendance, behavior, health, and mental health, and a building facilitator to help teachers implement and coordinate all program elements. The Core Knowledge project (Hirsch, 1993; Mentzer & Shaughnessy, 1996) and the Modern Red Schoolhouse (Kilgore, Doyle, & Linkowsky, 1996), which uses Core Knowledge materials, are two additional approaches that also have relatively well-specified approaches to curriculum, instruction, and school organization, and are increasing in use in the U.S.

Single-Subject Models. A third category of school reform networks is made up of programs focusing on a single subject and, often, a limited grade span. In recent years, the most extraordinary example of this type of reform is Reading Recovery, a one-to-one tutoring program originally developed by Marie Clay (1985) in New Zealand and now used in thousands of schools throughout the English-speaking world (see Lyons, Pinnell, & DeFord, 1993; Pinnell, 1989). However, there are hundreds of curriculum-specific programs in existence, serving tens

of thousands of schools. The U.S. Department of Education's National Diffusion Network (NDN) identified more than 500 projects that met a minimal standard of effectiveness and replicability, and some of these are in widespread use (the NDN also certified some whole-school reform models). A much smaller set of single subject (as well as schoolwide) programs with more convincing evidence of effectiveness was reviewed by Fashola & Slavin (in press).

Of course, school reform approaches can and do cross categories. Some school change models, especially the National Alliance, are closely associated with systemic change strategies. Any approach to school change may be motivated by such systemic policy consequences as accountability threat or adoption of state or local standards. Curriculum-specific reforms may be adopted by schools engaged in organizational development strategies. Yet it is still useful to make distinctions among these strategies, as they have profoundly different implications for broad scale school reform.

Readiness for Reform

Which type of approach to reform is most likely to result in change in teachers' practices and improvement in student achievement? The answer to this, I would argue, depends on certain characteristics of individual schools. Some of these characteristics relate to such factors as funding available for reform and available local capacity to support the reform process. However, at least as important as these issues is the school staff's readiness for change. Of course, schools can be characterized as being more or less ready for change, but in addition, schools must be seen as differentially ready for different kinds of change. For example, Hopkins (1994) suggests that change strategies for some schools should emphasize organizational development while others should emphasize innovations in curriculum and instruction, depending on the developmental readiness of the school to take on each type of change.

Building on this idea, I would propose three different categories of readiness based more on the capabilities, relationships, and immediate past history of a given school than on effectiveness alone. I'd call the strategies appropriate to these categories of schools "seeds," "bricks," and "sand."

"Seeds" schools are ones that have extraordinary capacity to translate a vision into reality. Such schools are ones in which staff is cohesive, excited about teaching, led by a visionary leader willing to involve the entire staff in decisions, and broadly aware of research trends and ideas being implemented elsewhere. In such schools a reformer need only introduce a vision and a set of principles, connect the school staff with other staffs undergoing reform, expose the staff to new ideas, and try to protect the staff from external pressures opposing the reform process. The "seeds" analogy refers to the idea that the soil is fertile and the seed has within it the capacity to grow and bear fruit; it only needs time, nurturing, and protection. This is the ideal situation envisioned by the organizational development models. However, recognizing that such staffs are rare, organizational development models often spend years trying to change the organizational climate in the school to one that is ready for the transformation process.

In contrast, "bricks" schools are ones in which school staffs would like to do a better job and are willing and able to engage in a reform process if they are convinced it would work, but are unlikely to create their own path to reform, even with external assistance. These are schools with good relations among staff and leadership, a positive orientation toward change, and some degree of stability in the school and its district. Yet the teachers in the school do not perceive the need or the capability to develop new curricula, instructional methods, or organizational forms. Introducing reforms in such schools is like building a structure out of bricks. The bricks must be brought to the building site, and detailed, comprehensive blueprints are needed to put them together into a viable, functional structure. The structure may be modified and is certainly furnished by its users, and a great deal of effort is still needed to build it. However, once built, the structure may stand for many years with moderate efforts at maintenance. This is the situation envisioned by developers of both comprehensive reform models, such as our Success for All and Roots and Wings programs, and most subject-specific reforms, such as Reading Recovery. These models are not expected to work in all schools, but are expected to work in nearly all schools that make an informed, uncoerced decision to implement them and have adequate resources to do so. For example, in Success for All and Roots and Wings, teachers

must vote by secret ballot to take on the program, with a majority of at least 80%. This element of choice is essential; professionals, especially teachers with a long tradition of academic freedom, are unlikely to put wholehearted effort into classroom strategies imposed on them by fiat, and in fact may work to undermine innovations they had no part in selecting.

Finally, there are schools in which even the most heroic attempts at reform are doomed to failure. Trying to implement change in such schools is like trying to build a structure out of sand. Even if something recognizable can be built, the least wave, windstorm, or even passage of time will reduce it to nothingness. There are several reasons that schools may fall into this category. Perhaps the largest number of such schools are complacent schools in which the school staff feels as though it is doing and always has done a good job. Many schools serving high-socioeconomic status areas fall into this category, even if, in fact, the schools may not be tapping the full potential of their students. For example, Teddlie & Stringfield (1993) studied "negative outlier" schools, some of which were complacent, middle class schools doing adequately by state standards but poorly after controlling for input characteristics. Some are schools that have had a recent bad experience with innovations, or schools that have already adopted and poorly or partially implemented other innovations, often a wide variety of unconnected programs. These latter schools might be called "weed" schools.* Other "sand" schools, however, are ones that are in turmoil or transition. They have recently experienced changes of principals or other key staff, are in districts undergoing major change or turbulence, have lost funding, have poor relationships among staff and principals, or have conservative, fearful, or incompetent leadership. Sand schools require fundamental changes before they can support any type of school change.

Note that these categories are not the same as a rating of the school's current effectiveness. It is entirely possible for schools to be doing a terrible job of educating students and still be ready for "bricks," well-organized and comprehensive reform. "Sand" schools are not necessarily ones that are failing. Complacent "sand" schools are almost by definition succeeding with many students, and many have islands of real excellence. "Seeds" schools may

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have the potential for extraordinary change, but this in no way implies that they are already successful.

How Many Schools Are In Each Category?

Schools are certainly not equally distributed among the "seeds," "bricks," and "sand" categories. I would guess, based on our experience with several hundred schools, that as many as 90% of elementary schools could, if they had the resources and assistance and made an affirmative and informed choice to do so, implement a comprehensive well-specified reform model like Success for All or Roots and Wings. If there were a range of such programs with evidence of effectiveness, supportive networks, and a variety of curricular and philosophical approaches, my guess is that a large portion of elementary school staffs motivated to see better outcomes and adequately funded for this purpose would choose to implement one of these or one or more equally well-specified subject-specific models (such as Reading Recovery). The proportion of secondary schools willing and able to implement comprehensive models is unknown, as such models do not currently exist at the secondary level. However, because of the greater size, complexity, and subject-matter focus of secondary schools it seems that achieving a common mission and whole-staff cohesion around that mission would be more difficult in secondary schools, and studies of school change involving schools at different levels invariably find change to be easier at the elementary level (e.g., Bodilly, 1996; Newmann et al., 1997). It may be that there would be "bricks" or even "seeds" departments or "houses" within large secondary schools not ready for change across the board.

All told, I would expect that fewer than 5% of elementary or secondary schools would fall into the "seeds" category. I base this pessimistic assessment on the growing body of observational studies that have examined exemplars of organizational development models selected as outstanding by their developers in which observers could see only limited and partial evidence of change in actual teacher's practices. Such studies have focused in particular on Sizer's Coalition of Essential Schools (e.g., Muncey & McQuillan, 1993; Prestine, 1993; Stapleford, 1994; Stringfield & Herman, 1994; Stringfield, Herman, Millsap, & Scott, 1996); but

also on some of the New American Schools models (Bodily, 1996) and other exemplary reform models (Newmann et al., 1996). Perhaps the best-known counterexample, New York's Central Park East (Meier, 1995), is an exception that proves the rule. Central Park East is a magnet school that draws a diverse but generally high-achieving (and self-selected) student body from all over Manhattan, and more importantly is able to select teachers who are deeply committed to the specific reform under way.

These studies aside, there are certainly some schools that are ready and able to develop and implement very ambitious reforms. In a national study of 24 exemplary reforming schools, Newmann et al. (1996) found a few, and Levin's Accelerated Schools Network has described some outstanding implementations (Hopfenberg & Levin, 1993). Yet such schools appear to be a minority of a minority.

Mismatches Between Reform Strategies and Reform Readiness

A key problem of school reform, I would argue, is when the wrong strategies are applied to the wrong settings. When any reform model is applied to a "sand" school, of course, it is by definition doomed, and the attempt drains the energy and enthusiasm of all concerned, not least the developer/disseminators.

Of course, there is a serious problem in determining in advance what kinds of reform, if any, a school is capable of implementing. However, with a modest investigation, it should be possible to determine this. For example, requiring an informed vote by secret ballot with a supermajority (we specify 80%) is one way to identify schools that are at least willing to engage in a specific reform; we find that school staffs riven with factionalism, distrustful of the principal, or seriously demoralized, are rarely able to achieve this degree of consensus. Discriminating "seeds" from "bricks" schools may be more difficult, but a "seeds" school should be able to point to one or more creative programs it devised and implemented in more than one or two classes.

The probability and consequences of attempting the wrong kind of reform in a given school vary for the different categories. Innovators can often avoid "sand" schools by refusing to

work with schools that do not overwhelmingly vote to implement their design, with schools that were apparently coerced into participating, and with schools that give evidence of dissension and turmoil. More problematic, however, and probably far more common, are situations in which "seeds" strategies are applied to schools ready for "bricks" solutions. If such schools are unable to create their own curricular and instructional reforms, this of course wastes time, energy, and money, as well as creating disillusionment with the whole reform process. However, there is a less obvious but perhaps more important cost. Schools are often rewarded for appearing to be involved in reform rather than actually changing their practices. They often want the banner on their school that identifies them as a member of a given network of reforming schools. Yet banners are cheap and easy to erect, while real change is expensive and difficult. Some schools may subscribe to a given network because it brings them status or recognition, and in some cases they may do so because it in a sense protects them from having to participate in other, more demanding reforms. Some of the most widely used "bricks" strategies with strong research bases, such as Reading Recovery and our own Success for All/Roots and Wings, have very high standards (including financial commitments) that schools must meet to enter or remain in the network. In contrast, many organizational development ("seeds") strategies involve schools in a planning process that may last for years, giving schools a chance to say they are a part of a reform network without actually having to spend much money or engage in serious change for a long time. To the degree that schools use participating in a network with a long planning period as a means to avoid serious reform, real reform is both set back in the individual schools involved and written off by many educators as too slow or difficult.

"Seeds" methods introduced to schools that are able to construct their own comprehensive reforms can provide a benefit that goes beyond the education of the students involved. They can also contribute new ideas, new conceptions of what schools could be (see, for example, Meier, 1995). However, the dangers of introducing "bricks" solutions to schools capable of succeeding in "seeds" models do not seem very serious. Assuming that school staffs have freely chosen a well-specified model, they should be able to apply their creative powers to

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improving their practices from a high baseline rather than having to invent everything from scratch. Few schools have the time, resources, and skills to develop outstanding approaches in every subject and grade level. For example, even schools willing and able to build an outstanding science program might well adopt "bricks" models in reading and mathematics.

Reforming "Sand" Schools

The foregoing discussion leaves aside the question of how to reform schools whose staffs are neither ready nor willing to be reformed. An old joke maintains that it only takes one organizational development expert to change a light bulb, but the light bulb has to want to change.

Of course, there are many reasons a school may not be ready for reform, and these require different solutions. Schools that are complacent either because they are serving low-risk populations or because they are actually succeeding may perhaps be left alone; well-crafted assessment/accountability systems may provide an adequate incentive for such schools to examine and gradually improve their practices. Other "sand" schools are only in this category for reasons that are temporary, as with schools undergoing changes in principals or serious funding cutbacks or districts experiencing teacher strikes or work-to-rule actions. The job of reform is enormous and the human and financial resources to do it are limited, so it makes sense to focus on schools that are ready for change with an expectation that many, perhaps most schools not ready for change this year may in the normal course of events become ready within a few years. Again, well-crafted accountability systems, consistent district-level support for reform, and the growing availability of technical assistance over time (as, for example, more reform-ready schools in the same district become expert at a given reform) make it likely that schools that sat out one opportunity due to temporary reasons will adopt or create a reform plan in later years.

In some cases, schools not otherwise willing to adopt a reform (but in need of major change) might be offered substantial inducements to do so, but the element of choice is still important to maintain. In other cases, it may be possible for schools to work with organizational development experts or other advisors to help them become ready for reform. For example, if

interpersonal problems, factionalism, or inadequate leadership are inhibiting a school's ability to reach an informed consensus on a direction of reform, an organizational consultant might help the school's staff recognize and solve the problem. Another supportive role might be played by "brokers," individuals aware of a broad range of innovations who can help staffs assess their needs and resources to make a rational choice among promising alternatives. This assistance may also help a "sand" school move toward readiness for reform.

The most difficult situation is "sand" schools that are deeply dysfunctional. At the extreme, these schools may be actively harming children; more often, an incompetent principal or factionally riven staff are running an ineffective school incapable of developing a common vision or plan. Working with such schools to try to create a climate for reform is extremely difficult and unlikely to succeed. These schools are prime candidates for principal changes and, in some situations, reconstitution. Reconstitution, an increasingly popular negative sanction in the U.S., is typically applied to schools that are low and declining on accountability measures. It usually means transferring out all staff except those who apply to remain and are accepted by a new principal. For example, reconstitutions have actually been carried out in the State of Maryland and in the San Francisco school district and are part of policies going into effect in many other districts. The reconstitution process can provide an opportunity to introduce "bricks" reforms. A principal experienced or knowledgeable about the reform may interview potential staff and require that applicants make an informed choice to implement the new program if they wish to teach in the school. Resources to implement the program might be provided as part of the reconstitution plan.

Policy Implications

The most critical implication of the foregoing discussion is that while co-constructed ("seeds") models focusing on organizational development can play an important role in the broader school reform movement, primarily allowing for the development of outstanding examples of what is possible in school reform, they should focus on the relatively small percentage of schools that are ready and able to make the best of them; a far larger set of schools,

I have argued, need and can implement well-specified ("bricks") models. Some "sand" schools that could not readily implement either type of strategy may be left alone if they are nevertheless doing an adequate job. However, schools in turmoil with low and falling test scores might be reconstituted, possibly to emerge with a new staff committed in advance to implementing a comprehensive, well-specified design.

Additional policy elements that would be necessary to create an infrastructure for progressive reform would be as follows.

1. Implement state-level reforms around standards and accountability

An important first step in any broad scale reform plan is to come to an agreement about what children should be learning and then hold schools accountable for moving their students toward ever-higher performance on broadly focused measures tied to these standards. By themselves, state-mandated standards, assessment, and accountability are unlikely to make a substantial difference in school practices or student achievement (Goertz et al., 1996; Newmann et al., 1997), but if tied to an array of practical, attractive, proven options for school and classroom reform, they can help motivate school staffs to do the hard work necessary to implement more effective practices. They can also help identify schools that are doing a terrible job with students so that these schools can receive special assistance and, if assistance is ineffective, reconstitution.

2. Fund development and evaluations of well-specified ("bricks") models

The greatest flaw in the argument made here is that there may be too small a pool of comprehensive, well-specified, well-evaluated models. Building a school reform system around such models requires that there be many of them, so that school staffs can make meaningful choices among them. There are several subject-specific methods (such as Reading Recovery and various writing process models and constructivist mathematics programs) that are well-validated and replicable (see Fashola & Slavin, in press), but Success for All/Roots and Wing is the only well-specified, comprehensive model up and running today with independently verified evidence of effectiveness and replicability. However, there are a number of additional developments on

the horizon that could change this situation. First, New American Schools (formerly the New American Schools Development Corporation) has funded the development of seven whole-school reform designs (including Roots and Wings). In addition to Roots and Wings, two or three of these have enough structure and materials to be considered "bricks" designs. The Core Knowledge program has the potential to serve as a "bricks" model, and is currently being evaluated by Sam Stringfield at Johns Hopkins University. The Edison Project is establishing a network of for-profit schools in districts around the U.S. Their design uses Success for All materials for elementary reading, writing, language arts, tutoring, and family support, and the University of Chicago Mathematics Program; other program elements, including a comprehensive technology plan, longer school days and years, and internal organization, are unique to the model. A comprehensive model called the Early Literacy Research Project (ELRP) based on Success for All but incorporating different curricular elements (including Reading Recovery as its tutorial approach) is currently being implemented and evaluated in the state of Victoria, Australia (Crevola & Hill, 1997), and has impressive evidence of effectiveness. A separate project in New South Wales (Sydney), led by Yola Center, is developing and evaluating another adaptation of Success for All, and also has evidence of effectiveness (Center, Freeman, Mok, & Robertson, 1997). In Israel, comprehensive approaches related to Success for All are being implemented and evaluated by Joseph Bashi (1997), and in a separate project led by Rachel Hertz-Lazarowitz (Hertz-Lazarowitz & Schaedel, 1997). Any of these international adaptations could become a separate design that could ultimately enrich the range of options available in the U.S. and elsewhere.

Beyond these, it would be relatively straightforward for developers to weave together subject-specific components into whole-school designs. Some of the existing designs already do this, as in the case of the Edison Project using Success for All materials and the Modern Red Schoolhouse using Core Knowledge materials. Not everyone needs to reinvent the wheel.

Still, there are two critical needs in this area. One is for funding and encouragement for developers to create new comprehensive and subject-specific designs in areas where few models

exist (such as middle and high schools) and in areas of enormous importance (such as beginning reading and school-to-work programs). The second is for third-party evaluations of replicable designs. A key assumption in the idea of focusing on "bricks" reforms is that if school staffs select a given design and implement it well, it will have an important impact on student achievement. Only third-party evaluations conducted by independent investigators can give school staffs confidence that a well implemented model will work. Elsewhere, I have argued for a system of "design competitions" that would fund the production of a range of replicable, attractive models for various levels of schooling and subject areas and ultimately carry out such independent assessments, comparing innovative models to control groups on measures linked to state and national standards (Slavin, 1997a).

     3. Help schools make informed choices among a variety of models.

     One general problem of innovation is that school staffs choose a model of reform because it happens to be available at the point when the school is ready and able to make a change. Rarely do schools make considered choices among a set of attractive options to find a match between the model's characteristics and the school's needs and capabilities (see Stringfield & Herman, 1995). This results in frequent mismatches between innovative models and implementing schools.

     To change this situation, two system-level reforms are needed. First, schools in a given district should be presented several contrasting models ("seeds" as well as "bricks") at the same time (see Slavin, 1997b). New American Schools (NAS) is currently organizing such opportunities to enable schools in ten U.S. jurisdictions (states or large cities) to make an informed choice among the seven NAS designs plus others of equal comprehensiveness. This process often includes "design fairs" in which school teams, after reviewing preliminary information, can hear about several designs over the course of one to two days. Other states and districts have also held design fairs of various kinds. This approach gives the school teams comparable information about the designs, of course, but also more subtly changes the conversation about reform from "what can we make up to solve our problems" to "what can we

select and adapt to meet our needs." Following design fairs school teams may visit schools using a given design, may have representatives from the design come to talk to the school staff, and may engage in extended discussions within the school and district to arrive at a satisfactory and widely supported choice.

The second reform implied by an "informed choice" approach is to have local brokers knowledgeable about the available models able to meet with school staffs to help them analyze their needs, strengths, and limitations, and then select a strategy for change. Competent brokers can help identify schools able to implement "seeds" strategies, those ready for "bricks," and those not currently ready for major change.

4. Target funding to adoption of proven practices.

Almost all school reform models can be implemented in the long run more or less within the current financial structure of schools, but many require significant additional investments in the early years (for extensive professional development, materials, technology, and so on). Further, additional funding may be necessary to motivate schools to invest their own resources in the reform process. For example, the Ohio State Department of Education makes "Venture Capital" grants of $25,000 to schools that write proposals showing how (among other things) they will use their own resources, such as Title I, to support schoolwide change. A number of Success for All/Roots and Wings schools in Ohio have come into the program through this route.

The problem of funding for schoolwide reform is serious. Even when schools have control of very large proportions of their funding, and even when their resources are substantial, it is difficult to pry loose adequate resources for professional development and innovation, because existing untargeted resources are usually absorbed in higher teachers' salaries, lower class sizes, aides, and other expenditures that are hard to reverse. Schoolwide reform in the U.S. has largely been funded by Title I formula allocations to high-poverty schools. Title I has a specific purpose (raising the achievement of students in poverty), and cannot be used for many purposes (such as raising teachers' salaries). Further, even though the amounts of money they receive do not depend on proposal writing, schools do have to submit a Title I plan each year,

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forcing them to rethink their uses of these funds. Traditionally, Title I funds have been used primarily for pullout remedial programs or classroom aides, two uses long found to be ineffective (see Slavin, 1994; Puma et al., 1993).

To promote the use of schoolwide reform models on a broad scale, a stable, predictable source of funds needs to be earmarked just for this purpose. There was a proposal for a 20% set-aside of Title I funds for this purpose that was never enacted (Commission on Chapter 1, 1992), but even encouragement for this use by federal, state, and local Title I officials has been very helpful. One interesting approach is being implemented in Israel where the government allocated substantial funds for various agencies to work with schools in 30 high-poverty communities to implement promising practices. Even in the U.S., and certainly in other countries with no analog to Title I, dedicated funding for schoolwide reform is essential, regardless of the level of funds available to schools for other purposes.

<u>Conclusion</u>

The school reform movement is now entering a new phase. Both systemic reforms (such as changes in standards, assessments, and accountability) and school-by-school reforms have made a great deal of progress in recent years, but both have also run into significant obstacles. It is now time to become more sophisticated and selective about how reforms are applied to schools at different stages of readiness for reform. This paper proposes one conceptual scheme to describe schools ready for co-constructed "seeds" models based on organizational development principles, those ready for structured, comprehensive "bricks" models that provide student materials, teacher's materials, and other supports, and "sand" schools not ready for reform. As the school reform movement progresses we must learn how to identify the different needs of schools and provide for these needs, so that the efforts of dedicated reformers are exerted where they will do the greatest good for children.

REFERENCES

Adler, M.J. (1982). <u>The Paideia proposal: An educational manifesto</u>. New York: Macmillan.

Bashi, J. (1997, March). <u>Universal versus cultural elements in implementation of Success for
   All: The Israeli case</u>. Paper presented at the annual meeting of the American Educational
   Research Association, Chicago.

Berman, P., & McLaughlin, M. (1978). <u>Federal programs supporting educational change: A
   model of educational change, Vol. VIII: Implementing and sustaining innovations</u>. Santa
   Monica, CA: Rand.

Bodilly, S.J. (1996). <u>Lessons from New American Schools Development Corporation's
   development phase</u>. Washington, DC: RAND.

Center, Y., Freeman, L., Mok, M., & Robertson, G. (1997, March). <u>An evaluation of
   Schoolwide Early Language and Literacy (SWELL) in six disadvantaged New South
   Wales schools</u>. Paper presented at the annual meeting of the American Educational
   Research Association, Chicago.

Clay, M.M (1985). <u>The early detection of reading difficulties</u>. Exeter, NH: Heinemann.

Comer, J. (1988). Educating poor minority children. <u>Scientific American, 259</u>, 42-48.

Commission on Chapter 1 (1992). <u>Making schools work for children in poverty.</u> Washington,
   DC: American Association for Higher Education.

Crevola, C.A., & Hill, P.W. (1997, March). <u>The Early Literacy Research Project: Success for
   All in Victoria, Australia</u>. Paper presented at the annual meeting of the American
   Educational Research Association, Chicago.

Elmore, R.F. (1996). Getting to scale with good educational practice. <u>Harvard Educational
   Review, 66</u>, 1-26.

Fashola, O.S., & Slavin, R.E. (in press). Promising programs for elementary and middle schools:
   Evidence of effectiveness and replicability. <u>Journal of Education for Students Placed at
   Risk</u>.

Felner, R.D., Jackson, A.W., Kasak, D., Mulhall, P., Brand, S., & Flowers, N. (1997). The impact of school reform for the middle years. Phi Delta Kappan, 78 (7), 528-532,541-550.

Fullan, M. (1991). The new meaning of educational change. New York: Teacher's College Press.

Goertz, M.E., Floden, R.E., & O'Day, J. (1996). Systemic reform. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Hertz-Lazarowitz, R. & Schaedel, B. (1997, March). Success for All in Acre: Effects on Hebrew and Arabic reading. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Hirsch, E.D. (1993). The Core Knowledge curriculum: What's behind its success? Educational Leadership, 50(8), 23-30.

Hopfenberg, W.S., & Levin, H.M. (1993). The Accelerated Schools resource guide. San Francisco: Jossey-Bass.

Hopkins, D. (1994). Towards a theory for school improvement. In J. Gray et al. (Eds.), Merging traditions. London: Cassell.

Hopkins, D., Ainscow, M. & West, M. (1994). School improvement in an era of change. London: Cassell.

Jackson, A.W. (1990). From knowledge to practice: Implementing the recommendations of *Turning Points*. Middle School Journal, 21, 1.

Kilgore, S., Doyle, D. & Linkowsky, L. (1996). The Modern Red Schoolhouse. In S. Stringfield, S., Ross, & L. Smith (Eds.), Bold plans for school restructuring: The New American Schools Development Corporation designs. Mahwah, NJ: Erlbaum.

Levin, H.M. (1987). Accelerated schools for disadvantaged students. Educational Leadership, 44(6), 19-21.

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

Lyons, C.A., Pinnell, G.S., & DeFord, D.E. (1993). <u>Partners in learning: Teachers and children</u> <u>in Reading Recovery</u>. New York: Teachers College Press.

Meier, D. (1995). How our schools could be. <u>Phi Delta Kappan, 76</u>(5), 369-373.

Mentzer, D., & Shaughnessy, G. (1996). Hawthorne Elementary School: The teachers' perspective. <u>Journal of Education of Students Placed at Risk, 1</u>(1) 13-34.

Muncey, D.E., & McQuillan, P.J. (1993). Preliminary findings from a five-year study of the Coalition of Essential Schools. <u>Phi Delta Kappan, 74</u>(6), 486-489.

Newmann, F.M., et al. (1996). <u>School restructuring and student learning</u>. San Francisco: Jossey-Bass.

Newmann, F.M., King, M.B., & Rigdon, M. (1997). Accountability and school performance: Implications from restructuring schools. <u>Harvard Educational Review, 67</u>, 41-74.

Orell, C. (1996). ATLAS Communities: Authentic teaching, learning, and assessment for all students. In S. Stringfield, S. Ross, & L. Smith (Eds.), <u>Bold plans for school</u> <u>restructuring: The New American Schools designs</u>. Mahwah, NJ: Erlbaum.

Pinnell, G.S. (1989). Reading Recovery: Helping at-risk children learn to read. <u>Elementary</u> <u>School Journal, 90</u>, 161-182.

Prestine, N.A. (1993). Feelings the ripples, riding the waves: Making an essential school. In J. Murphy & P. Hallinger (Eds.), <u>Restructuring Schooling: Learning from ongoing efforts</u>. Newbury Park, CA: Corwin.

Puma, M.J., Jones, C.C., Rock, D., & Fernandez, R. (1993). <u>Prospects: The congressionally</u> <u>mandated study of educational growth and opportunity</u>. Interim report. Bethesda, MD: Abt Associates.

Rothman, R. (1996). Reform at all levels: National Alliance for Restructuring Education. In S. Stringfield, S., Ross, & L. Smith (Eds.), <u>Bold plans for school restructuring: The New</u> <u>American Schools Development Corporation designs.</u> Mahwah, NJ: Erlbaum.

Slavin, R.E. (1994). School and classroom organization in beginning reading: Class size, aides, and instructional grouping. In R.E. Slavin, N.L. Karweit, B.A. Wasik, & N.A. Madden

(Eds.), <u>Preventing early school failure: Research on effective strategies</u>. Boston: Allyn & Bacon.

Slavin, R.E. (1997a). Design competitions: A proposal for a new federal role in educational research and development. <u>Educational Researcher, 26</u> (1), 22-28.

Slavin, R.E. (1997b). <u>Effective methods: School district strategies to support school change</u>. Baltimore, MD: Johns Hopkins University, Center for Research on the Education of Students Placed at Risk.

Slavin, R.E., Madden, N.A., Dolan, L.J., & Wasik, B.A. (1996a). <u>Every child, every school: Success for All</u>. Newbury Park, CA: Corwin.

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

Sizer, T. (1992). <u>Horace's school</u>. New York: Houghton Mifflin.

Smith, M., & O'Day, J. (1991). Systemic school reform. In S. Fuhrman & B. Malen (Eds.), <u>The politics of curriculum and testing</u> (pp. 233-267). Bristol, PA: Falmer.

Stapleford, T.A. (1994, April). <u>The power of coalition: A comparative study of two school reform projects.</u> Paper presented at the annual meetings of the American Educational Research Association, New Orleans.

Stringfield, S., & Herman, B. (1994). <u>Observation of partial implementations of the Coalition of Essential Schools: The need for higher reliability organizational methods</u>. Baltimore: Johns Hopkins University, Center for Research on the Education of Students Placed at Risk.

Stringfield, S, & Herman, B. (1995, April). <u>The effects of promising programs on students: Results from the special strategies study</u>. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Stringfield, S., Herman, R., Millsap, M., & Scott, E. (1996, April). <u>The three year effects of ten</u>

<u>"Promising Programs" on the academic achievements of students placed at risk</u>. Paper

presented at the meeting of the American Educational Research Association, New York.

Teddlie, C., & Stringfield, S. (1993). <u>School matters: Lessons learned from a 10-year study of</u>

<u>school effects.</u> New York: Teachers College Press.